



# SEAFDEC NEWSLETTER

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## SEAFDEC organizes consultation to develop ASEAN-SEAFDEC Common Positions for CITES-CoP19



Participants of the Regional Technical Consultation to develop common/coordinated positions for CITES-CoP19

The SEAFDEC Secretariat organized the “Regional Technical Consultation (RTC) on Development of the ASEAN-SEAFDEC Common Positions on the Proposed Listing of Commercially-

exploited Aquatic Species (CEAS) into the CITES Appendices” on 30 August–1 September 2022 in Bangkok, Thailand. The RTC was attended by fisheries experts

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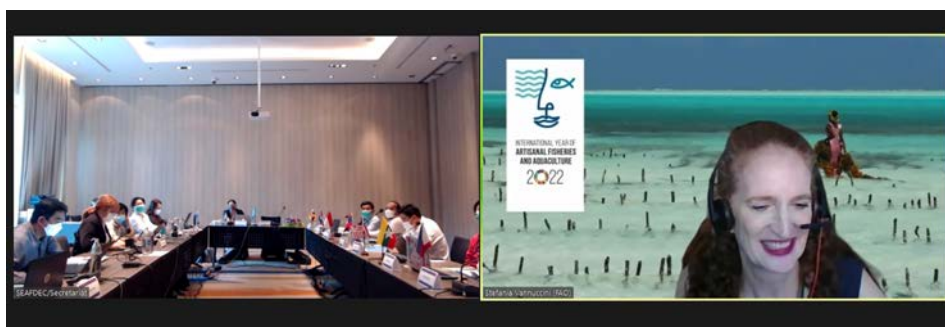
## EDITORIAL

During the third quarter of 2022, SEAFDEC organized the “Regional Technical Consultation (RTC) on Development of the ASEAN-SEAFDEC Common Positions on the Proposed Listing of Commercially-exploited Aquatic Species (CEAS) into the CITES Appendices” and came up with the “Positions of the ASEAN–SEAFDEC Member Countries on the Proposed Listing of Commercially exploited Aquatic Species (CEAS) into the CITES Appendices at the CITES-CoP19” which was subsequently approved by the SEAFDEC Council *ad referendum* prior to the forthcoming 19<sup>th</sup> Meeting of the CITES-CoP19.

The “Second Consultation on Fisheries and Statistics and Information in Southeast Asia” was also the highlighted event during this quarter, which discussed and agreed on the revision of the Regional Framework specifically on marine and inland capture fisheries, aquaculture,

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## SEAFDEC organized the Second Consultation on Fisheries and Statistics and Information in Southeast Asia



Participants of the Regional Technical Consultation and resource persons from the Food and Agriculture Organization of the United Nations (FAO) (right)

SEAFDEC Secretariat organized the “Second Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia” on 23–26 August 2022 in Pattaya, Thailand (on-site and online). The Consultation was attended by representatives from

all ASEAN Member States (AMSs), a representative from the Food and Agriculture Organization of the United Nations (FAO), and officers of the SEAFDEC Secretariat and Departments. This Consultation is the second of a

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## EDITORIAL

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fishers and fish farmers, producer price, while also suggested new statistics to be included. The “Regional Workshop on MCS for Combating IUU Fishing in Southeast Asia” was organized and came up with the specific requirements to enhance the MCS capacity such as technical assistance on NPOA capacity, capacity building on the electronic traceability, training on risk analysis of the pattern of fishing operation in fishing gear by using VMS and AIS, and technical assistance on data collection, stock assessment, etc. The “Seventh Meeting of the Scientific Working Group on Neritic Tunas Stock Assessment in the Southeast Asian Waters” was convened to share the progress of the studies of *Thunnus Tonggol* population and *Euthynnus affinis* life history, as well as to present the stock status of seerfish in the Southeast Asian region.

Furthermore, SEAFDEC continued to conduct several training courses including the Regional Capacity Building Network (RECAP) on Gender Mainstreaming in Small-scale Fisheries and Aquaculture for Sustainable Development in Southeast Asia, Second Training Course for Advanced Stock Assessment in Support of the Implementation of the International Commitments for Sustainable Use of Fisheries Resources in Southeast Asia, Regional Training Course on Container Inspection, Regional and National Training Course on Fisheries Management Tools, Regional Training Course on Marine Debris and Microplastic Sampling Collection and Analysis, GIS and RS Technology Workshop for Inland Fisheries and Aquaculture, Regional Training Course on Fish Population Dynamics and Fisheries Management, and Training on Gender Mainstreaming in Fisheries Sector.

Finally, the publication “Small-scale Fisheries of Southeast Asia: A Regional Digest” was launched by SEAFDEC in celebration of the International Year of Artisanal Fisheries and Aquaculture (IYAFA) 2022. ☒

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## SEAFDEC organizes consultation to develop ASEAN-SEAFDEC Common Positions for CITES-CoP19

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and National Coordinators from the ASEAN-SEAFDEC Member Countries, namely: Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam; officers from the SEAFDEC Secretariat and Departments, namely: TD, AQD, MFRDMD, and IFRDMD; as well as resource persons from the Food and Agriculture Organization of the United Nations (FAO), academes, and relevant agencies. During the RTC, the discussion focused on the technical information and views of countries on the proposed listing of CEAS into the CITES Appendices *i.e.* *Carcharhinidae* spp., *Potomotrygon* spp. *Rhinobatidae* spp., *Sphyrnidae* spp. *Thelonota* spp. Moreover, the

additional species *Hypancistrus zebra* *Crocodylus siamensis* were also raised and discussed by the countries.

The RTC developed the document “Positions of the ASEAN-SEAFDEC Member Countries on the Proposed Listing of Commercially-exploited Aquatic Species (CEAS) into the CITES Appendices at the CITES-CoP19.” The document was subsequently circulated to the SEAFDEC Council *ad referendum* prior to the forthcoming 19<sup>th</sup> Meeting of the Conference of the Parties of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CoP19) on 14–25 November 2022 in Panama City, Panama. It is envisaged that the document would be reflected by the ASEAN-SEAFDEC Member Countries during the CITES-CoP19.

The RTC was one of the activities under the Japanese Trust Fund project “Assistance for Capacity Development in the Region to Address International Fisheries-related Issues.” ☒

## SEAFDEC organized the Second Consultation on Fisheries and Statistics and Information in Southeast Asia

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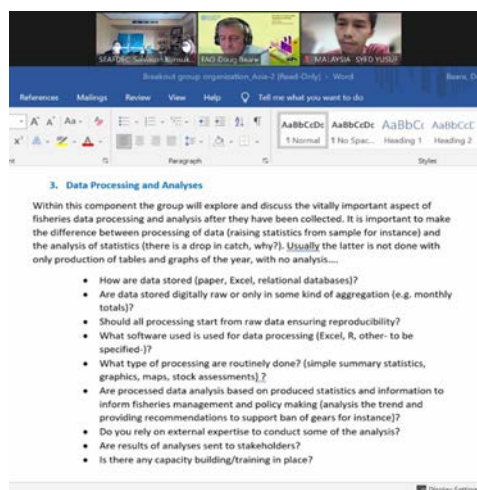
series of Consultations intended to harmonize the “Regional Framework for Fishery Statistics of Southeast Asia” with the recently adopted global standards, definitions, and classifications of fishery statistics.

During the Consultation, the countries made presentations on their respective current fishery statistics. Subsequently, the Consultation discussed and agreed on the revision of the Regional Framework specifically on marine and inland capture fisheries, aquaculture, fishers and fish farmers, and producer price, together with the corresponding questionnaires. The Consultation also provided

recommendations on future activities toward improving regional fishery statistics in the future *e.g.* capacity building, improving the fishery statistics database, among others.

In compiling regional fisheries statistics, the Consultation supported the inclusion of new statistics items (*e.g.* statistics on small-scale and commercial fisheries, fishers and fish farmers disaggregated by nationality and gender, and per capita fish consumption) to recognize and highlight the importance of the contribution of fisheries to food security, small-scale fisheries, and gender inclusion. ☒

## SEAFDEC takes part in FAO Workshop on Fisheries Data Collection and Statistics



SEAFDEC Information Program Coordinator *Ms. Nualanong Tongdee* together with Senior Information Officer *Ms. Saivason Klinsukhon* attended the “Workshop on Fisheries Data Collection and Statistics-Asia and Pacific” which was

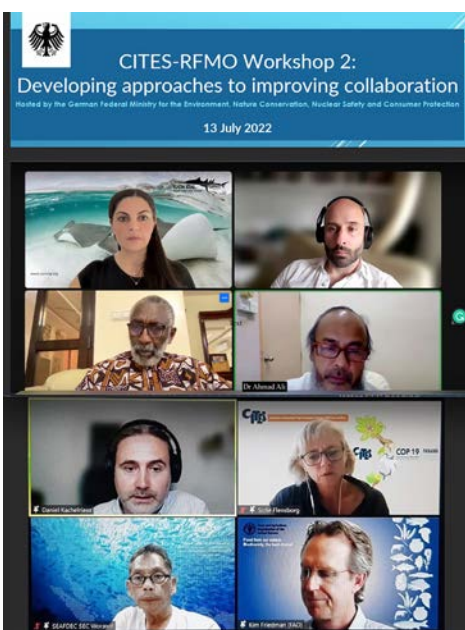
organized by the Food and Agriculture Organization of the United Nations (FAO) on 26–27 July 2022 through an online platform. The Workshop was participated in by countries in Asia and the Pacific, including six Southeast Asian countries, namely: Brunei Darussalam, Cambodia, Malaysia, Philippines, Thailand, and Viet Nam. The Workshop was aimed at discussing challenges related to data collection, sharing experiences on activities being carried out, identifying solutions and priority needs at the country level, as well as engaging and promoting dialogue between national fisheries agencies, national statistics offices, and regional/international organizations.

During the Workshop, SEAFDEC shared the experiences and information

on the ongoing works in supporting the SEAFDEC Member Countries toward improving their capacity in data collection *e.g.* capacity building on species identification and data collection on some species under international concerns like sharks, rays, anguillid eels, etc.; improving data collection through community-based approach; harmonizing the Regional Statistics Frameworks with the global standards, definitions and classifications adopted by FAO; while also informing that the regional statistics compiled by SEAFDEC are publicized through various channels including statistics database in the SEAFDEC website, Facebook, as well as through specific articles in SEAFDEC publications.



## SEAFDEC participates in the online workshop series “Improving Synergies between Regional Fishery Bodies and CITES Authorities for the Management and Conservation of Marine Elasmobranchs”



*Dr. Ahmad bin Ali (Second to the top, right) and Dr. Worawit Wanchana (bottom, left) during the workshop*

The Policy and Program Coordinator of SEAFDEC Secretariat, *Dr. Worawit Wanchana* as well as former Chief of SEAFDEC Marine Fishery Resources Development and Management

Department and former Regional Vice Chair of the IUCN Shark Specialist Group for Southeast Asia Region, *Dr. Ahmad bin Ali*, participated in a virtual workshop organized by the German Environment Ministry and Germany Agency for Nature Conservation under the project “Improving Synergies Between Regional Fisheries Bodies (RFBs) and CITES Authorities for the Management and Conservation of Marine Elasmobranch” on 13 July 2022. The Workshop was intended to develop approaches to improve the collaboration between CITES and regional fisheries management organizations (RFMOs), address specific management measures, and identify opportunities for greater cooperation between fisheries and species protection organizations.

The attendees of the Workshop include representatives from the international agencies related to natural resources conservation and management and regional fisheries bodies. During the

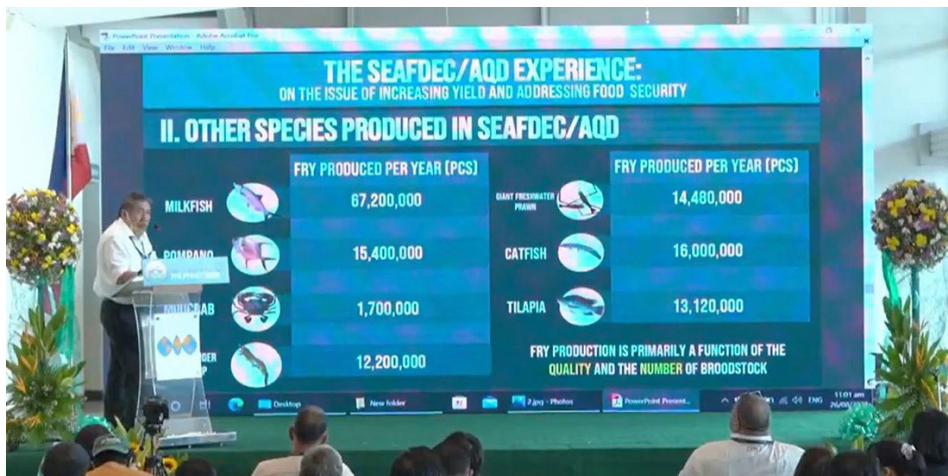
Workshop, *Dr. Ahmad* was a panelist in Panel 2 which focused on the cooperation between CITES and RFMOs on non-CITES listed species to prevent the decline of their stock to the level that would include them in CITES listing. Moreover, *Dr. Worawit* was one of the panelists in Panel 3 which discussed the cooperation between the CITES and RFMOs on common objectives for CITES-listed species.

This event was part of a series of three online workshops on the sustainability of sharks and rays in fisheries and trade. The first workshop in December 2021 presented the status of shark species and threats and the strengths and weaknesses of the current relationship between fisheries and conservation management. The third workshop in late 2022 will move towards identifying and investigating opportunities for implementation of joint solutions and inform the planning of the high-level event in 2023.



# DEPARTMENTAL ACTIVITIES

## AQD Chief shares strategies on increasing aquaculture yield in expo



AQD Chief Mr. Dan Baliao talks about “Increase Yield in Aquaculture Farming in the Philippines,” where he shared the farm and industry-level approaches to maximizing yield as well as the innovations and priority programs of SEAFDEC/AQD (Screenshot from the Livestock Philippines Expo video)

SEAFDEC/AQD Chief, Mr. Dan Baliao, was one of the guest speakers at the “Livestock Expo Philippines 2022,” an international trade fair for innovative poultry and livestock production and processing, held at the World Trade

Center in Pasay City, Philippines on 24–26 August 2022. Mr. Baliao talked about “Increase Yield in Aquaculture Farming in the Philippines,” where he shared the farm and industry-level approaches to maximizing yield. He also mentioned the innovations and priority programs of AQD, such as the Milkfish Fry Sufficiency, Oplan Balik Sugpo (Operation Tiger Shrimp Revival), Accelerated Techno-transfer, and Manpower Development.

The event served as a venue for globally-available cutting-edge technologies and solutions, conferences and technical seminars, and networking with other players in the livestock industry of the Philippines. Over 3,500 stakeholders from all over the world attended on the first day of the event.



## Oplan Balik Sugpo update

After three consecutive years of successful verification runs at SEAFDEC/AQD Dumangas Brackishwater Station (DBS) in Iloilo, Philippines, the Department collaborated with the Philippine Department of Agriculture-National Fisheries Research and Development Institute (DA-NFRDI) for the continuation of the Oplan Balik Sugpo (Operation Tiger Shrimp Revival) Program this year.

DA-NFRDI utilized four 500-square-meter HDPE-lined rectangular grow-

out ponds and one 2,000-square-meter HDPE-lined reservoir pond for the grow-out culture of black tiger shrimp (*Penaeus monodon*) located at its Freshwater Fisheries Research and Development Center in Taal, Batangas, Philippines. The operation adopts environment-friendly schemes in shrimp farming through proper biosecurity measures and biomanipulation.

Over 600 individuals of tilapia and milkfish juveniles were stocked at the reservoir pond. The fish will serve as

biomanipulators for the greenwater technology that prevents the production of luminous bacteria in the grow-out ponds. The culture areas are secured from predators by a perimeter fence and bird scares. In addition, high-quality and disease-free postlarvae produced at AQD Shrimp Hatchery Complex in Tigbauan, Iloilo were utilized.

Moreover, a parallel verification run is also being conducted at DBS using soil-bottom ponds. The same fry source, stocking density (30 fries/m<sup>2</sup>), and culture techniques were used in DBS and Batangas but only differed on the culture environment.

The Oplan Balik Sugpo Program is a joint initiative of SEAFDEC/AQD, DA-BFAR, and DA-NFRDI under the Joint Mission on Accelerated Techno-Transfer Program (JMANTTP) that aims to revive the black tiger shrimp industry in the Philippines.



Use of paddle wheel aerators as a life support system for the shrimp in Taal, Batangas, Philippines

## IFRDMD holds 2022 JTF 6 Phase II Semi-Annual Meeting

IFRDMD convened its “2022 JTF 6 Phase II Semi-Annual Meeting” on 13 September 2022 at SEAFDEC/IFRDMD Office in Palembang, Indonesia. The Meeting was organized to review the progress of the Japanese Trust Fund (JTF) VI Phase II projects and ensure that such projects are in line with the initial agreement.

During the Meeting, the Project Coordinators presented the achievements of the project activities conducted in 2022 as well as the proposed activities for 2023. The activities of the project “Management Scheme of Inland Fisheries in the Southeast Asian Region” was presented by *Mr. Freddy Supriyadi* while the activities of the project “Sustainable Utilization of Anguillid Eel in the Southeast Asian Region” was presented by *Ms. Ni Komang Suryati*.



*Participants of the 2022 JTF 6 Phase II Semi-Annual Meeting*

However, due to travel restrictions during the COVID-19 pandemic, some activities in 2022 were postponed including data collection and sample analysis. Despite the challenges, the Meeting advised the Project Coordinators to develop strategies to reach the goals

of the Projects. It is hoped that after considering the recommendations of the Meeting, IFRDMD could optimize the project activities to achieve the objectives of JTF 6 Phase II projects and address the relevant issues faced by the SEAFDEC Member Countries.



## SEAFDEC/AQD-JIRCAS collab kicks off

New research projects between SEAFDEC/AQD and the Japan International Research Center for Agricultural Sciences (JIRCAS) kicked off during the meeting on 2 August 2022. The AQD Executive Committee, headed by Chief *Dan Baliao* and Filipino and Japanese researchers, attended the hybrid program. The JIRCAS Director for the Food Program, *Dr. Kazuo Nakashima*, was also present during the Meeting.

The upcoming research projects have the theme, “Development of Sustainable Agriculture Technologies in Tropical Areas,” that include the following sub-studies: 1) development of surrogation technique and genetic resource conservation system by transplantation and cryopreservation of germ cells in fish, 2) improvement of larval settlement and post-larval production for abalone (*Haliotis asinina*) and sandfish (*Holothuria scabra*), and 3) assessment and development of an intermediate culture system for tropical



*AQD Senior Technical Assistant assigned at the Abalone Hatchery, Mr. Nestor Bayona, shows Japanese researchers abalone juveniles during their tour of AQD facilities in Tigbauan, Iloilo, Philippines*

aquaculture species. The attendees of the Meeting also exchanged ideas for another project on seaweed research. The Meeting was capped off with a tour of AQD facilities and an inspection of prospective experimental areas at its main station in Tigbauan, Iloilo, Philippines.

Before this Meeting, a Memorandum of Agreement was inked on 29 March 2022 between AQD and JIRCAS to formalize their research collaboration which will remain effective until 31 March 2026.



## SEAFDEC visits MFRDMD and Department of Fisheries Malaysia

The Secretary-General of SEAFDEC, *Ms. Malinee Smithrithee*, together with senior officials of the SEAFDEC Secretariat and Training Department (TD) visited the Marine Fishery Resources Development and Management Department (MFRDMD) in Kuala Terengganu, Malaysia on 1 August 2022. The SEAFDEC Secretariat and TD officials had a discussion with the Chief of MFRDMD, *Mr. Abd. Haris Hilmi bin Ahmad Arshad*, Deputy Chief of MFRDMD, *Mr. Hasahito Hirota*, Special Departmental Coordinator, *Ms. Mazalina Ali*, regarding the technical collaboration between MFRDMD and TD to support the Member Countries, *i.e.* capacity-building program on stock assessment, IUU fishing, CITES, research activities on hydroacoustic equipment, JAIF-related activities (marine debris, RPOA-Capacity Project), and JTF-7 project formulation. On 2 August 2022, the representatives from the SEAFDEC Secretariat and TD made a technical visit to Pulau Redang, Malaysia to discuss the activities of the SEAFDEC fisheries *refugia* project in Malaysia and observe



facilities on coral adoption and sea turtle hatchery.

Subsequently, the representatives from the SEAFDEC Secretariat and TD paid a courtesy call to the Director-General of the Department of Fisheries (DOF) Malaysia and SEAFDEC Council Director for Malaysia, *Mr. Haji Mohd Sufian bin Sulaiman*, Director of Planning and Development Division and SEAFDEC National Coordinator, *Ms. Yeo Moi Eim*, and senior officials of DOF Malaysia on 3 August 2022 in Putrajaya, Malaysia. During the visit, the key programs of SEAFDEC to support

Malaysia and Member Countries, *i.e.* monitoring and evaluation of the ASEAN-SEAFDEC Resolution and Plan of Action on Sustainable Fisheries; new projects of FAO/GEF and USAID; utilization of M.V. SEAFDEC 2 and M.V. SEAFDEC; and the Special Seminar on Results of Research Cruise Survey in the Gulf of Thailand conducted in 2018, were discussed. Finally, the representatives from the SEAFDEC Secretariat and TD visited the 2022 Malaysia Agriculture horticulture and Agrotourism Show (MAHA 2022) in Serdang, Malaysia.



## Scientist attends planning workshop on food security

SEAFDEC/AQD Scientist and Research Division Head, *Dr. Leobert de la Peña*, participated in a planning workshop held in Muntinlupa City, Philippines on 27–29 July 2022. Other attendees of the three-day event titled “ASEAN-CGIAR Innovate for Food Regional Program Planning Workshop” include representatives from the Association of Southeast Asian Nations (ASEAN), Consultative Group on International Agricultural Research (CGIAR) research centers, government agencies, and funders. The aim of the Workshop was to review research and innovation priority areas to address agriculture and food security challenges and build a more resilient ASEAN agri-food system. Also, it sought to identify the next steps in developing a regional program and the engagement process among CGIAR, its research centers, and the various ASEAN stakeholders.



*Dr. Leobert de la Peña (leftmost) with other participants of the “ASEAN-CGIAR Innovate for Food Regional Program Planning Workshop” in Muntinlupa City, Philippines (Photo courtesy of IRRI)*

The participants of the Workshop discussed the ASEAN-CGIAR Regional Program which includes intervention packages representing a combination of research and innovation priority areas in agriculture throughout the region. These were developed following national consultations with the ASEAN Member States. Moreover,

the participants thoroughly discussed the seven intervention packages, such as regenerative agriculture and aquaculture, carbon neutrality and climate change, and enhancing value chains and regional trade. They also identified how these would align with the needs and challenges of the region.



## AQD entertains visitors from academe and gov't agencies

From July to September 2022, SEAFDEC/AQD entertained over 100 guests from the academe and government agencies. Visitors from the academe include the Western Philippines University, Mindanao State University, University of Southern Mindanao, Sultan Kudarat University, University of San Agustin, and Kagoshima University. The visitors toured the hatchery and laboratory facilities of AQD.

On the other hand, Philippine government agencies such as the National Economic and Development Authority Region VI in Iloilo; local government unit of Sagay, Negros Occidental; Bureau of Fisheries and Aquatic Resources and local government units of Region IV-A; and National



*US Soybean Export Council representative Mr. Morgan Haas visits the AQD feed mill facility in Tigbauan, Iloilo, Philippines*

Fisheries Research and Development Institute went around the AQD facilities in Tigbauan, Iloilo to gain insights on the Department's priority programs and aquaculture activities.

Lastly, a delegate from the United States Department of Agriculture (USDA) trade mission visited AQD Feed Mill facility and some hatcheries in

Tigbauan to learn about the Department's research activities on aquaculture feeds. This visit was part of the USDA forecasting task wherein a USDA representative visits farmers and related facilities to know the current and future trends in feed ingredient production before publishing their grain, feed, and oilseeds forecasts. ❖

## On-site Training on Fish Handling Onboard Fishing Vessels in Thailand



Under the project "Responsible Fishing Technology and Practice" with support from the Japanese Trust Fund, the SEAFDEC Training Department (TD) organized the "On-site Training on Fish Handling Onboard Fishing Vessel" on 8 July 2022 in Pattani Province, Thailand. The 20 participants of the Training were fishers, vessel owners, and other relevant stakeholders. The Training focused on the importance of fish handling, cold chain management, and

applicable methods through preservation techniques for improving fish handling onboard. In the end, it is expected that the participants understood the technical knowledge of preserving the quality of fish to be fresh and reducing the damage to the quality of fish as well as apply the techniques for using labor-saving equipment for fishing operations to enhance convenience and safety and reduce the impact of the labor shortage in fisheries. ❖

## Training Department Welcomes visitors from FRA, Japan



*The President of Japan Fisheries Research and Education Agency (FRA), Dr. Ichiro Nakayama (right) during his visit at TD*

The SEAFDEC Training Department (TD) welcomed the President of Japan Fisheries Research and Education

Agency (FRA), Dr. Ichiro Nakayama, and his colleagues on 13 September 2022. During their visit, the staff of TD

introduced the roles and activities of SEAFDEC in the region. Moreover, the visitors observed TD facilities such as the fishing workshop, marine engineering workshop, and M.V. SEAFDEC.

The FRA is a national research and development agency and has been conducting activities that contribute to the stable supply of fishery products and sound development of the fisheries industry. Also, the agency promotes research and development and human resource development in the fisheries field and returns the results to society. ❖

## IFRDMD conducts Workshop for Gender in Fisheries



*Participants of the Workshop for Gender in Fisheries in Indonesia*

Recognizing the need for increased gender awareness of fisheries stakeholders, SEAFDEC/IFRDMD built the capacity of women to ensure that the gender aspects are integrated into the routine work in fisheries. Therefore, IFRDMD organized a workshop to improve women participation in inland fishery activities to support family welfare. The Workshop was held in Kampong Patin, Koto Masjid Village, Kampar Regency, Riau Province, Indonesia on 14 July 2022. Kampong Patin is popular for *Pangasius* fishery from breeding and culturing to product development and marketing.

There were 33 participants from Sawah Village, Hangtuh Village, and

Koto Masjid Village, and 30 of them are women. Three resource persons were invited to the Workshop to share their knowledge and experience. *Ms. Sri Febdarina* from Riau Tourism College explained the active role of women in fisheries-based tourism businesses. *Dr. Trisla Warningsih* from Riau University shared her experience on scaling up women's existence in inland fisheries by harmonizing ecological and economic knowledge. While *Dr. Iskandar Putra* also from Riau University introduced eco-friendly aquaculture.

During the Workshop, the Chief of IFRDMD, *Mr. Zulkarnaen Fahmi*, motivated the fishers to dig for more ideas

and innovation to sell their products such as encouraging their children to explore the digital market, among others.

The Workshop was supported by the Kampar District Fisheries Office, and *Mr. Fahmi*, the head of Kampar District Fisheries Office shared information on fish products. Besides, he urged the women to enhance their skills to support the development of becoming a tourism village.

After the lectures, the participants toured around Kampong Patin to learn from the inland fisheries activities in the village. ❖

## Training on Gender Mainstreaming in Fisheries Sector



*Participants during the activities*

The SEAFDEC Training Department (TD) in collaboration with the Inland Fishery Resources Development and Management Department (IFRDMD) organized the "Training on Gender Mainstreaming in Fisheries Sector" from 6 to 8 September 2022 at IFRDMD Office in Palembang, Indonesia.

The aims of the Training were to enhance the understanding and awareness of gender aspects and promote gender mainstreaming in developing fisheries

management policies and programs. The participants in the Training include 21 fisheries officers from Palembang and staff from IFRDMD. During the Training, the participants learned the basic gender concepts and the process to integrate gender into fisheries and into their work. This activity was under the project "Small-scale Fisheries Management for Better Livelihood and Fisheries Resources" supported by the Japanese Trust Fund. ❖



## AQD researcher talks on seaweed culture at int'l conference



SEAFDEC/AQD Associate Researcher, *Ms. Hananiah Pitogo*, participated in the “International Seaweed Trade Conference and Exhibition” from 28 to 29 September 2022 in Chennai, India. *Ms. Pitogo* talked about Seaweed

*SEAFDEC/AQD Associate Researcher, Ms. Hananiah Pitogo during the conference*

Policies and Practices in Southeast Asian Countries and Lessons for India. She also discussed AQD’s research project on the tissue culture of seaweeds.

The Conference was organized by the Bay of Bengal Programme and was attended by researchers from national research organizations, senior officers from the Government of India, and industry representatives. ❖

## Visitors flock to AQD booth at 24<sup>th</sup> Davao Agri-Trade Expo



*Philippine Senator Ms. Cynthia Villar exchanges words with AQD Chief Mr. Dan Baliao about the contributions of AQD to aquaculture*

Visitors flocked to the SEAFDEC/AQD exhibit at SM Lanang Premier in Davao, Philippines, which featured

legislated multispecies hatcheries, feed mill for cost-effective diets, and research milestones. Philippine senator,

*Ms. Cynthia Villar*, was among those who dropped by the booth and met the AQD Chief, *Mr. Dan Baliao*, who was present along with division heads *Dr. Leobert de la Peña*, *Dr. Roger Edward Mamauag*, and *Dr. Edgar Amar*. The exhibition was part of the 24<sup>th</sup> Davao Agri-Trade Expo held on 29–30 September 2022. During the expo, dubbed “Mindanao’s biggest and longest-running trade show,” attendees learned more about AQD and its role in the advancement of the aquaculture sector. ❖

## TD joins Thailand Fishery Exhibition “Pramong Nomklao”

The SEAFDEC Training Department (TD) joined National Fishery Exhibition in Thailand “Pramong Nomklao” organized by the Department of Fisheries, Thailand from 1 to 10 July 2022 at the Future Park Rangsit in Pathumthani Province, Thailand. This year, TD displayed the M.V. PLALUNG, a wooden fishery

vessel prototype for saving energy with specifications including 29.98 GT, 18.32 m length, 4.40 m breadth, and 1.71 m depth.

The vessel was installed with new technology for optimizing energy and fuel efficiency to cause low impacts on

the environment as well as instruments to reduce manpower during fishing operations including onboard fish handling and preservation. The vessel was improved as a trawler prototype to support TD in the conduct of training and research activities along the coastal areas of Thailand. The modification was in accordance with the ILO Work in Fishing Convention No. 188 (C188) which promotes decent working conditions for workers in the fisheries sector.

During the exhibition, information materials such as technical publications, brochures, and leaflets were disseminated to promote SEAFDEC activities. The income collected from the event will be donated to the Chulabhorn Research Institute in Thailand for its cancer research. ❖



*Visitors of the Thailand Fishery Exhibition “Pramong Nomklao” at SEAFDEC booth*

## SEAFDEC organizes Webinar on Japan's Catch Documentation Scheme (CDS)



The SEAFDEC Secretariat in collaboration with the Fisheries Agency of Japan jointly convened the “Webinar on Japan’s Catch Documentation Scheme (CDS) Under Act on Ensuring the Proper Domestic Distribution and Importation of Specified Aquatic Animals and Plants” on 26 July 2022 through Zoom platform. The Webinar was attended by resource persons from

the Fisheries Agency of Japan, and representatives from the SEAFDEC Member Countries, namely: Brunei Darussalam, Cambodia, Indonesia, Japan, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam, as well as SEAFDEC Secretary-General and senior officers from the SEAFDEC Secretariat, TD, MFRD, and MFRDMD. The Webinar was held to provide

information on the implementation of the Act which is scheduled to enter into force on 1 December 2022. During the Webinar, staff of the Fisheries Agency of Japan explained and clarified the questions raised by the other SEAFDEC Member Countries on implementation and requirements of the CDS of Japan. The Japan CDS would require catch certificates for the four species (*i.e.* squid and cuttlefish, pacific saury, mackerel, and sardine) imported to Japan which should be issued by the competent authority of flag State of the vessel to certify that they were caught legally.

The Japan CDS is among the actions of Japan to prevent IUU catches from entering the supply chain in the country. The webinar could be watched at SEAFDEC YouTube (<https://www.youtube.com/watch?v=9uAwoNfWBSY>), while more detail of the Japan CDS could be found in <https://www.jfa.maff.go.jp/220614.html>. ❖

## USAID Sustainable Fish Asia – Local Capacity Development (SUFIA/LCD) Activity – Close Out Event organized



The USAID Sustainable Fish Asia-Local Capacity Development (SUFIA/LCD) Activity – Close Out Event was organized on 18 July 2022 at the SEAFDEC Training Department (TD) in Samut Prakan, Thailand in a hybrid manner. The Event was part of the SUFIA/LCD project funded by the United States Agency for International Development (USAID) and implemented by RTI International. The event was attended by the SEAFDEC Secretary-

General, *Ms. Malinee Smithrithee*, staff of SEAFDEC Secretariat and TD as well as representatives from the USAID Regional Development Missing for Asia (RDMA) led by the USAID Asia Acting Deputy Mission Director, *Ms. Elisabeth Chambers*, and Director of Program Development Departments, *Mr. Aaron Brownell*, and RTI International. The aims of the Event were to present the SUFIA/LCD activity achievements over the past two years, lessons learned, and program recommendations, and acknowledge partners and donors. At the end, *Ms. Malinee* expressed her appreciation to the U.S. Government for providing support through this SUFIA/LCD activity that assists SEAFDEC in improving the organizational capacities on administrative, financial, and human resources aspects in compliance with

international standards including the requirements of USAID. The SUFIA/LCD also assists SEAFDEC in developing a new regional program through the Public International Organization (PIO) Grant of the USAID.

The SUFIA/LCD activity is a two-year (October 2020–August 2022) collaboration project funded by USAID aiming to strengthen SEAFDEC, particularly its leadership and capacity as a key regional institution in the Southeast Asian region for improved fisheries development, strengthened regional collaboration, improved management of multistakeholder platforms, compliance, and enforcement, as well as increased involvement of the private sector in sustainable fisheries management and development. ❖

## AQD engineer visits sites of three marine hatcheries



Engr. John Aldrin Tugo, a member of SEAFDEC/AQD's Feasibility Study Team, visited three provinces in the Philippines to check two multispecies

hatcheries that are under construction, and a proposed site for another hatchery.

From 20 to 23 September 2022, Engr. Tugo went to Del Carmen, Surigao Del Norte, and Agusan del Norte, to inspect the construction of a multispecies marine hatchery and a multispecies freshwater hatchery, respectively. He also inspected the site of a proposed multispecies marine hatchery in Basilisa, Dinagat Island. ❖

## AQD info officer shares science communication tips for fisheries bureau staff

The AQD Senior Information Specialist and Development Communication Section Head, Mr. Rex Delsar Dianala, shared SEAFDEC/AQD's strategies and experiences in science communication with personnel of the Philippine Bureau of Fisheries and Aquatic Resources (BFAR) Region 6 during a writing workshop on 11–12 August 2022 in Iloilo City, Philippines.

Mr. Dianala spoke on “Popularizing Scientific Breakthroughs” wherein he presented the Department's work on producing information materials and approaches to disseminating them online and offline.



Senior Information Specialist Mr. Rex Delsar Dianala emphasizes during his talk that communicators should constantly adjust their words and communication style to capture their audience's interest while clearly delivering information (Photo courtesy of BFAR 6)

The lecture was part of the first day of the Technical Writing and Feature Writing Workshop which was organized by BFAR 6. Twenty participants who

were Capacity Building Focals of Provincial Fisheries Offices and Report Officers of BFAR 6 attended the workshop. ❖

## SEAFDEC Joins the 7<sup>th</sup> Marine Science Conference



The 7<sup>th</sup> Marine Science Conference with the theme “Science, Technology and Innovation for Sustainable Seas” was organized by the Marine Science Association of Thailand from 5 to 7

September 2022 in Bangkok, Thailand. The SEAFDEC Training Department (TD) joined the event by putting up an exhibition on SEAFDEC activities relevant to marine fisheries resources and

environment surveys using SEAFDEC research vessels. SEAFDEC documents and information materials were distributed during the exhibition.

At the Conference Session on Seeds for Resource and Environmental Sustainability in the Gulf of Thailand (GoTSeed), researchers from SEAFDEC and partner universities and agencies made 22 oral and two poster presentations on the results of the collaborative surveys on marine fisheries resources and environment in the Gulf of Thailand conducted in 2018 using the M.V. SEAFDEC 2. ❖

# SPECIAL REPORT

## Development of aquaculture techniques for new aquatic species

SEAFDEC/AQD



Towards the creation of new aquaculture industries, SEAFDEC/AQD and the Government of Japan-Trust Fund (GOJ-TF) have been researching the potential of new aquaculture species since 2020. The candidate species are shortfin scad *Decapterus macrosoma*, kawakawa *Euthynnus affinis*, and slipper lobster *Thenus orientalis*.

The biological characteristics of the species are being investigated, and the development of rearing techniques are underway, as part of the GOJ-TF project “Development of aquaculture techniques on new aquatic species for promotion and creation of local aquaculture industry.” The project duration is from 2020 to 2024. Studies initially focus on their reproductive biology, and the collection and transport of wild breeders. Research will also deal on development of techniques for broodstock management and larviculture.

### Shortfin scad

The shortfin scad is a staple fish in the Philippine and a major source of affordable protein for lower income groups. However, supply is wholly dependent on wild catch that has dwindled in recent years, leading prices to soar to as much as US\$ 6 per kilogram.

In 2020, the research began with collecting breeders off the coasts of southern Iloilo and Antique in the Philippines. After multiple efforts to collect shortfin scad breeders, SEAFDEC/AQD finally documented the spawning of the fish.

The breeders captured in August and October 2021 laid eggs in December 2021 and continued to produce good eggs until February, and again in May 2022. It was the first time in the world that the fish was documented to have spawned in captivity, marking a critical milestone towards farming the fish.



Some of the world's first captive-bred galunggong 48 days after hatching at the SEAFDEC/AQD in Tigbauan, Iloilo.

Initially, the fish were observed to grow very fast, especially when they reach 20 days old, and can reach 2.5 cm in length in 25 days. Survival rates varied but reached as much as 20% 25 days after hatching.

Further broodstock collections were done in 2022 to replicate the earlier spawning successes. New collection and transport methods achieved up to a zero-percent mortality rate. AQD hopefully aims to produce more juveniles that can then be grown in sea cages to begin research in the grow-out of the shortfin scad.

## Kawakawa

Kawakawa is a neritic tuna that is valued by commercial and small-scale fishers as a substitute for oceanic tunas. Its relatively smaller size and fast growth makes it an attractive target for aquaculture. While breeding technology for the species has already been developed in Japan, AQD is aiming to adapt the techniques in the Southeast Asian setting.

Regular sampling of kawakawa has been done since 2020 in Antique province and continues to be done. Samples were collected from otoshi-ami, ring net, purse seine, and hook and line methods. They are dissected to better understand their reproductive biology and feeding habit.

Success in collection and transport of kawakawa has been achieved. Live samples were successfully brought to the Tigbauan Main Station in 2022 and broodstock management protocols for the species is currently being developed. However, protocols for handling the fish in captivity still need to be refined.



*Wild kawakawa matured in captivity at AQD by the third quarter of 2022.*

## Slipper Lobster

The slipper lobster is considered to be a more affordable alternative to the more commonly traded spiny lobster. In the

Philippines, they are expected to gain popularity as a local delicacy, especially because of their consistent meat yield and quality. Their meat also readily separates from the shell, making cooking and eating easier.

While most focus on developing techniques for the culture of spiny lobsters, AQD aims to promote the slipper lobster as a more practical species for culture. Slipper lobsters have only four larval stages that lasts a total of 30 days, compared to the 11 larval stages or up to 300 days for spiny lobsters. Thus, the culture period for slipper lobsters is shorter at 14 to 16 months, while spiny lobsters take 22 to 24 months.

AQD has been gathering slipper lobster breeders in Negros Occidental province since 2021. They are then packed for waterless transport to AQD facilities in Tigbauan, Iloilo where their feeding behavior and egg development is observed.

The first hatching of slipper lobsters took place in September 2021 from egg-bearing specimens that were brought to the AQD hatchery. A slipper lobster fanned out thousands of eggs with its pleopods to facilitate the hatching of phyllosoma larvae. A subsequent hatching was video-documented by AQD in October of the same year to better understand its hatching behavior.

Meanwhile, slipper lobster breeders continue to be retrieved, transported, and allowed to hatch at AQD's hatchery in Tigbauan, Iloilo. The best way to grow the phyllosoma larvae is now being studied, including the optimal holding tank design to keep the larvae from sinking to the bottom. Also being studied are water quality maintenance, water agitation methods, and proper food and feeding systems. AQD aims to grow the larvae to juvenile size so they can then be grown in nurseries and grow-out cages. ❖



*Slipper lobster, one of the lobster species traded in the Philippines that is now the subject of studies at SEAFDEC/AQD in Tigbauan, Iloilo.*

# REGIONAL PROGRAMS

## SEAFDEC holds its first RECAB activity on gender



The Regional Capacity Building Network (RECAB) was initiated by SEAFDEC and supported by the SEAFDEC Council during its 53<sup>rd</sup> Meeting in 2021. In 2022, the first RECAB activity was organized to commemorate the International Year of Artisanal Fisheries and Aquaculture (IYAF) 2022. The SEAFDEC Secretariat and Training Department (TD) co-organized the “Regional Training Course on Gender Mainstreaming in Small-scale Fisheries and Aquaculture for Sustainable Development in Southeast Asia” as the first RECAB activity. The Training was conducted in Thailand in Rayong Province and at SEAFDEC/TD in Samut Prakan Province on 20–29 September 2022. There was a total of 19 participants including trainees who are fisheries

officers from the ASEAN Member States (AMSs), namely: Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam as well as representatives from AQD, MFRDMD, and IFRDMD. The Training was also attended by gender team from the SEAFDEC Secretariat and TD. The resource persons from FAO, Mahidol University, Prince of Songkla University, and Department of Fisheries of Thailand shared their knowledge and experiences on social science and gender aspects during the Training.

The Training covered both theoretical and practical sessions. The trainees gained knowledge of gender concepts, roles, mainstreaming tools, and analysis framework. Moreover, the trainees

visited fishing communities in Rayong Province to conduct the field survey for data collection and gender analysis. They also learned to identify actions to integrate gender into small-scale fisheries and aquaculture development projects. At the end of the Training, the trainees developed the action plans to be implemented in their works with the engagement of their top management and colleagues towards gender mainstreaming in their respective offices’ action plans with the ultimate goal towards the well-being of small-scale fisheries and aquaculture in the Southeast Asian region.

The RECAB is the capacity development program for relevant fisheries officers from the AMSs to be trained at SEAFDEC Departments as well as to strengthen regional cooperation and network among the AMSs on various subjects. The RECAB is a part of the project “Assistance for Capacity Development in the Region to Address International Fisheries-related Issues” funded by the government of Japan through the Japanese Trust Fund. ❖

## AQD in-person training courses on the roll



*Fish Health Management trainees carry out practical activities*

SEAFDEC/AQD in-person training courses are slowly returning to normal after the COVID-19 pandemic, with 62 trainees for the six courses completed



*Participants of the milkfish culture training course learn to prepare aquaculture feed*

during the third quarter of 2022. Two of these six training courses, namely: fish health management and fish nutrition and feed development, have trainees

sponsored by the Government of Japan-Trust Fund (GOJ-TF). The GOJ-TF-sponsored trainees were from SEAFDEC Member Countries such as Brunei Darussalam, Myanmar, Philippines, and Viet Nam.

The other training courses offered were about the aquaculture technologies of marine fish, mangrove crab, and sandfish. All of the participants of these training courses were from the Philippines except for mangrove crab which has four trainees from Bangladesh. ❖

## SEAFDEC and FAO successfully co-host the second training course for advanced stock assessment



SEAFDEC Secretariat and FAO co-organized the “2<sup>nd</sup> Training Workshop on Stock Assessment in Support the Implementation of the International Commitments for Sustainable Use of Fisheries Resources in Southeast Asia” from 29 August to 6 September 2022 onsite at SEAFDEC/TD in Samut Prakan, Thailand and online. The trainers were experts on fish stock assessment from the FAO as well as from universities in USA and Mexico. The training course gathered fishery biologists who are responsible for the national stock assessment

program in marine fisheries resources of the SEAFDEC Member Countries (*i.e.* Brunei Darussalam, Indonesia, Malaysia, Philippines, Thailand, and Viet Nam); officers from the SEAFDEC Secretariat, stock assessment experts from TD and the SEAFDEC Marine Fishery Resources Development and Management Department.

The training course focused on stock assessment and analysis of the respective countries’ data using various models such as length-based stock

production ratio (LBSPR), surplus production model, yield per recruit, productivity susceptibility analysis, data processing and verification, and relationship between catch and CPUE, and others. During the training, the participants learned how to interpret the results of the assessment and developed science-based management advice for management plans towards sustainable utilization of fisheries resources.

This training was in line with the directive from the SEAFDEC Council to enhance the capacity of the SEAFDEC Member Countries to determine the reference points of the stock status for proper fisheries management plan for sustainable utilization of fishery resources along with the project “Assistance for Capacity Development in the Region to Address International Fisheries-related Issues” funded by the government of Japan through the Japanese Trust Fund.



## Regional Training Course on Container Inspection



The SEAFDEC Training Department (TD) organized the “Regional Training Course on Port State Measures Inspection in Focus of Shipping Container for Fish and Fisheries Product” in collaboration

with the U.S. National Oceanic and Atmospheric Administration (NOAA) and United States Agency for International Development (USAID) from 13 to 15 September 2022 at the

premises of TD in Samut Prakan, Thailand. There were 14 participants from the ASEAN Member States who are engaged in the implementation of port control and inspection of fish and fisheries product importation who attended the Training. During the Training, the resource persons from NOAA conducted lectures and facilitated practical exercises. Subsequently, the participants were able to enhance their knowledge, skills, and experience in the inspection of fish and fisheries product importation *via* sea in container vessels, as well as from land and air transportation.

This activity was under the project “Strengthening Regional Cooperation and Enhancing National Capacities to Eliminate IUU Fishing in Southeast Asia.”



## Regional Workshop on MCS for Combating IUU Fishing in Southeast Asia



Under the project “Strengthening Regional Cooperation and Enhancing National Capacity to Eliminate IUU Fishing in Southeast Asia,” SEAFDEC Training Department (TD) organized the “Regional Workshop on Monitoring Control and Surveillance (MCS) for Combating IUU Fishing in Southeast Asia” from 23 to 24 August 2022 in Chonburi Province, Thailand. The aims of the Workshop were to share updated information on MCS implementation activities to combat IUU fishing, enhance and promote fisheries management tools for combating IUU fishing, and identify the needs for MCS capacity building for combating IUU fishing. There were 37 participants from the ASEAN Member

States and international organizations who attended the Workshop. The current MCS activities were presented by the respective AMSs and international organizations including FAO, AN-IUU, RPOA-IUU, International MCS Network (IMCS), Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), Indian Ocean Tuna Commission (IOTC), Australian Fisheries Management Authority (AFMA), and Southern Indian Ocean Fisheries Agreement (SIOFA).

During the Workshop, the initiatives SEAFDEC of toward combating IUU fishing were presented which include the ASEAN Guidelines for

Preventing the Entry of IUU Fish and Fishery Product into the Supply Chain, Traceability of Fish and Fishery Products from Fishing to Plate as electronic ASEAN Catch Documentation Scheme (eACDS), Regional Cooperation to Support Implementation of Port State Measures, Regional Fishing Vessels Record (RFVR), sub-regional/bilateral MCS cooperation, and RPOA-Capacity. Moreover, the Workshop identified the specific requirements to enhance the MCS capacity of the countries in combating IUU fishing such as technical assistance on NPOA-Capacity; capacity building on the electronic traceability; training on risk analysis of the pattern of fishing operation in each fishing gear by using VMS and AIS; technical assistance on data collection, stock assessment, and research survey of marine resources; training on inspection for foreign flag vessels; sharing information on port inspection; and fisheries intelligence/technology/application with notification such as VMS, AIS, and other new technology for surveillance and MCS integration. ❖

## Seventh Meeting of the Scientific Working Group on Neritic Tunas Stock Assessment in the Southeast Asian Waters



SEAFDEC/MFRDMD organized the “Seventh Meeting of the Scientific Working Group on Neritic Tunas Stock Assessment in the Southeast Asian Waters” on 23–24 August 2022 via a physical-video conference in Terengganu, Malaysia. The Meeting aimed to share the outputs of the “Workshop on Seerfish in Malaysian Waters using ASPIC in Collaboration with DOF Malaysia,” which was organized on 19–23 December 2021 as well as the work plan of future

activities. The participants of the Meeting include representatives from Brunei Darussalam, Indonesia, Cambodia, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam; resource person from Hokkaido University, Japan; representatives from SEAFDEC Secretariat and Training Department; observers from Fisheries Research Institute, Bintawa, Sarawak, and Department of Fisheries, Sabah; and officials from MFRDMD.

During the Meeting, the Project Coordinator, *Mr. Mohammad Faisal Md Saleh*, shared the stock status of seerfish of all the ASEAN Member States (AMSs). Simultaneously, the senior Research Officer of MFRDMD, *Ms. Wahidah Mohd Arshaad*, presented the progress of the population study of *Thunnus tonggol* in the Southeast Asian region. While the Research Officer of MFRDMD, *Ms. Annie Nunis Billy*, presented the progress on the life history study for *Euthynnus affinis* in the East Coast of Peninsular Malaysia. Moreover, the representatives from the respective AMSs presented the stock status of their seerfish. The Meeting was under the project “Fisheries Management Strategies for Pelagic Fish Resources in the Southeast Asian Region” funded by the Japanese Trust Fund. ❖



## Regional and National Training Courses on Fisheries Management Tools



*Participants of the National Training Courses on Fisheries Management Tools*

Under the project “Small-scale Fisheries Management for Better Livelihood and Fisheries Resources,” the SEAFDEC Training Department (TD) organized a series of regional and national training courses on fisheries management tools for ecosystem approach to fisheries management (EAFM) at the premises of TD in Samut Prakan Province, Thailand. The regional training was held from 12 to 17 September 2022 with eight participants who are fisheries officers

from the ASEAN Member States; while the national training course was held from 22 to 26 August 2022 with 18 participants who were fishery officers from the Department of Fisheries, Thailand. The resource persons were Kasetsart University fishery management expert, *Dr. Kungwan Chantarachot*, and EAFM trainers from TD.

The Training was intended to enhance the knowledge and skills of the

participants in identifying the appropriate management tools to address common EAFM issues. During the Regional and National Training Courses, several management tools were introduced to the participants including total allowable catch, individual quotas and individual transferable quotas, total allowable effort, spatial closures and marine protected areas, fisheries *refugia*, temporal closures, ecolabelling, gear modification, habitat restoration, restocking and stock enhancement, artificial reefs, strengthening legislation and the judiciary, participatory monitoring, control and surveillance, planning and implementation, training and capacity building, microfinance and microcredit, fisheries cooperative, market access improvement, value-added products, communication and outreach, among others. Then, the participants considered the fishery background, budget, and time to identify the appropriate management tools. ❖

## Second Core Experts Meeting on Fisheries Management Strategies for Pelagic Fish Resources in the Southeast Asian Region



The “Second Core Experts Meeting” on the ways forward for the remaining years of the Project. The Meeting was organized by MFRDMD on 28–29 September 2022 *via* physical-video conference in Terengganu, Malaysia. The aims of the Meeting were to share the current activities and progress on data collection of selected small pelagic species from the ASEAN Member States (AMSs) as well as to determine the method of stock analysis and discussion

attended by the representatives from the participating countries of the Project, namely: Brunei Darussalam, Cambodia, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam; resource persons from Hokkaido University, Japan, and Universiti Malaysia Terengganu, Malaysia; representatives from SEAFDEC Secretariat and Training Department; observers from Fisheries Research Institute, Bintawa, Sarawak,

and Department of Fisheries, Sabah; and officials from MFRDMD.

The highlight of the Meeting was the discussion on the results of the preliminary analysis by using Harvested Feedback Control and Surplus Production Modal methods utilizing the data from FAO Fish Stat J, SEAFDEC Statistical Bulletin, as well as the previous project “Comparative Studies on Management of Purse Seine Fisheries in the Southeast Asian Region.” However, due to the insufficiency of data, the Meeting was not able to finalize the methodologies to be used for data analysis. Therefore, MFRDMD would follow up the set of questionnaires from the participating countries to complete the data. The scientific outputs of the Project could be considered by the AMSs in formulating and developing their respective fisheries management plans. ❖


# FUTURE ACTIVITIES

Date	Venue	Title	Organizer(s)
<b>2022</b>			
2–6 October	Kuala Terengganu, Malaysia	Workshop on Chondrichthyan Taxonomy and Biology	MFRDMD
11–13 October	Bangkok, Thailand	TUNA2022: Strengthening Resilience, Adaptability and Sustainable Growth in the Global Tuna Industry	INFOFISH
17–19 October	Bangkok, Thailand	1 <sup>st</sup> Meeting of the Regional Scientific and Technical Committee(RSTC) for the Project Implementing the Strategic Action Programme for the South China Sea and Gulf of Thailand (SCS SAP Project)	TD/SCS Project
18–20 October	Bali, Indonesia	23 <sup>rd</sup> Meeting of the Information Staff Program (ISP)	SEC & IFRDMD
25–27 October	Kuala Terengganu, Malaysia	Training on Gender Mainstreaming in Fisheries Sector	TD & MFRDMD
25–28 October	Busan, Republic of Korea	3 <sup>rd</sup> Meeting of the Sustainable Ocean Initiative Global Dialogue with Regional Seas Organizations and Regional Fishery Bodies	ISSD
7–11 November	Samut Prakan, Thailand	Training Course on Ecosystem Approach to Fisheries Management for Mekong River Fisheries Community	TD
7–21 November	Rizal, Philippines	Training Course on Community-based Freshwater Aquaculture for Remote Rural Areas of Southeast Asia	AQD
8–10 November	Jakarta, Indonesia	7 <sup>th</sup> Meeting of the Regional Scientific and Technical Committee (RSTC7) for the Project Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand (Fisheries Refugia Project)	TD/Fisheries <i>refugia</i> project
9 November	Online	FAO Workshop on Fisheries Data Collection and Statistics (Global)	FAO
14–16 November	Busan, Korea	15 <sup>th</sup> Annual Meeting of Asian Fisheries Acoustics Society	AFAS
14–25 November	Panama City, Panama	19 <sup>th</sup> Meeting of the Conference of the Parties of the Convention on International Trade in Endangered Species of Wild Fauna and Flora	CITES
18 November	Panama City, Panama	Side Event “Resource Utilization of Commercially-exploited Aquatic Species (CEAS) in Southeast Asia: Regional Cooperation to Support National Actions”	Secretariat
16–27 November	Samut Prakan, Thailand	Regional Training Course on Fish Larvae Phase I: Larval Identification and Early Life History of Marine Fishes	TD
22 November	Online	JIRCAS International Symposium 2022 “Artisanal Fisheries and Aquaculture in the Sustainable Food Systems”	JIRCAS
22–24 November	Australia (and online)	15 <sup>th</sup> RPOA-IUU Coordination Committee Meeting	RPOA-IUU Secretariat
26–27 November	Samut Prakan, Thailand	Regional Training Course on Fish Larvae Phase I: Larval Fish Identification and Fish Early Life History Science	TD/Fishery <i>Refugia</i> Project
28 November–3 December	Samut Prakan, Thailand	Regional Training Course on Fish Larvae Phase II: Determining Spawning-nursing Ground and Season Using Larvae Survey Result	TD
29 November	Kayu Agung, Indonesia	Workshop of Manual Guidelines for Remodelling of Swamp Fisheries: Conservation Area	IFRDMD
29–30 November	Thailand	Regional Workshop to Exchange Information on Catch Documentation Scheme and Traceability of Fish and Fishery Products	TD
5–7 December	Iloilo, Philippines	45 <sup>th</sup> Meeting of SEAFDEC Program Committee	SEC & AQD
6–9 December	Samut Prakan, Thailand	Regional Practical Training Course on Geographic Information System and Remote Sensing for Aquaculture	TD
8–9 December	Iloilo, Philippines	25 <sup>th</sup> Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (FCG/ASSP)	SEC
10 December	Iloilo, Philippines	SEAFDEC Department Chiefs’ Meeting (DCM)	SEC
12 December	Rome, Italy	6 <sup>th</sup> Meeting of the Global Record Working Group	FAO
20 December	Palembang, Indonesia	2022 Japan Trust Fund Annual Meeting	IFRDMD
23 December	Online	8 <sup>th</sup> Meeting of the Project Steering Committee for the SEAFDEC/UNEP/GEF Project on Establishment and Operation of a Regional System of Fisheries <i>Refugia</i> in the South China Sea and Gulf of Thailand	TD/Fishery <i>Refugia</i> Project


## SEAFDEC attends the Thirty-fifth Session of the FAO Committee on Fisheries (COFI)

The SEAFDEC Secretary-General, *Ms. Malinee Smithrithee*, and Policy and Program Coordinator of the SEAFDEC Secretariat, *Dr. Worawit Wanchana*, attended the “Thirty-fifth Session of FAO Committee on Fisheries (COFI)” from 5 to 9 September 2022 in Rome, Italy.

During the Meeting, FAO informed the Committee Members of the state of world fisheries and aquaculture and the progress of the implementation of the Code of Conduct for Responsible Fisheries and related instruments; 2030 Agenda for Sustainable Development; support to small-scale and artisanal fisheries, including in the International Year of Artisanal Fisheries and Aquaculture (IYAFA); progress and elements for comment on the Action Plan for the Implementation of FAO Strategy on Climate Change; mainstreaming of biodiversity in fisheries and aquaculture; development of global and regional processes related to fisheries and aquaculture; FAO's program of work in fisheries and aquaculture under FAO Strategic Framework; multiyear program of work of the Committee; development of the fora under the mandate of COFI; and results of the World Fisheries University Pilot Programme.

Moreover, the agenda of the Meeting include combating IUU fishing; decisions and recommendations of the 11<sup>th</sup> Session of the COFI Sub-Committee on Aquaculture; and decisions and recommendations of the 18<sup>th</sup> Session of the COFI Sub-Committee on Fish Trade. The Meeting took note of the issues discussed and endorsed the establishment of the COFI Sub-Committee on Fisheries Management as well as the FAO Voluntary Guidelines on Transshipment. 

## Regional Training Course on Marine Debris and Microplastics Sampling Collection and Analysis

The SEAFDEC Training Department (TD) organized the onsite “Regional Training Course on Marine Debris and Microplastics Sampling Collection and Analysis” from 18 to 25 August 2022 at Training Department, Samut Prakan, Thailand. The aims of the training were to build up the capacity of researchers on marine debris and microplastic sample collection and analysis and strengthen the network of marine debris and microplastic researchers in the region. There were 25 participants from the ASEAN Member States (AMSs) who attended the Training. The resource persons were experts from universities in Japan and Thailand and imparted their knowledge of the world marine debris situation, management of marine debris and microplastics, survey methodology of seafloor debris. The trainees carried out exercises on sampling techniques, data analysis using the R program among others. The Training was an activity under the project “Sustainable Utilization of Fisheries Resources and Resources Enhancement in Southeast Asia.” 

### 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.

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## GIS and RS technology workshop for Inland Fisheries and Aquaculture in AMS organized




With support from the Japan-ASEAN Integration Fund (JAIF), SEAFDEC Secretariat organized a workshop on analyzing catch and GIS data under the project “Strengthening the Effective Management of Inland Fisheries and Aquaculture in AMS with GIS and RS

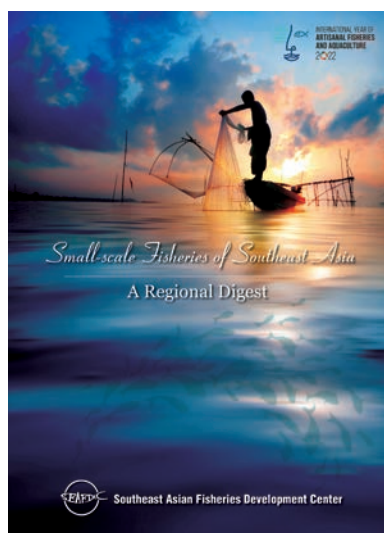
Technology” on 21–23 September 2022 in Bangkok, Thailand. The participants were the focal persons of the Project from Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam; officials and staff from the SEAFDEC Secretariat and Training Department; and resource persons from Tokyo University of Marine Science and Technology (TUMSAT).

During the Workshop, the progress of the Project including the catch data collected from five inland fisheries sites, environmental data downloaded from satellite platforms, and analyzed

catch and environmental data. Also, the procedure of downloading environmental data from satellites and data analysis methods using statistical software R and QGIS were introduced.


*Dr. Toshihide Kitakado* from TUMSAT instructed the analysis method using R statistical software while the participants worked on exercises using Tonle Sap catch and environmental data. *Dr. Kitakado* also shared the analysis method using the data from Cambodia. The Project will conclude with the technical report to be published at the end of 2022. 

## SEAFDEC publishes “Small-scale Fisheries of Southeast Asia: A Regional Digest”



Scan the QR code to download the publication

SEAFDEC would like to present the “Small-scale Fisheries of Southeast Asia: A Regional Digest.” SEAFDEC Secretariat and Departments collaborated on the development of this publication to serve as a demonstration of SEAFDEC’s celebration of the

International Year of Artisanal Fisheries and Aquaculture (IYAFA) 2022. The compilation of this document is a step in SEAFDEC’s process of presenting what has been accomplished in relation to the small-scale fisheries in the Southeast Asian region. This publication also highlights the lessons learned and provides a strategic outlook and actions to be undertaken toward sustainable development of small-scale fisheries in the Southeast Asian region. 

## Regional Training Course on Fish Population Dynamics and Fisheries Management



The SEAFDEC Training Department (TD) organized the “Regional Training Course on Fish Population Dynamics and Fisheries Management Using R-statistical Program” from 8 to 12 August 2022 at TD in Samut Prakan,

Thailand. The aim of the Training was to strengthen the capacity of human resources from the ASEAN Member States (AMSs) on fish population dynamics and fisheries management using the R-statistical program through

sharing the updated information on population dynamics of transboundary species in the region. There were 18 participants in the Training Course including fisheries officers and/or researchers from the AMSs. The Training focused on R-statistical program and package for fisheries, biostatistical analyses, estimation parameters in fish population dynamics by using R packages, and so on. The Training is an activity under the project “Sustainable Utilization of Fisheries Resources and Resources Enhancement in Southeast Asia” supported by the Japanese Trust Fund. 