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EDITORIAL

For the last quarter of 2017, SEAFDEC celebrated a historic event which is its 50th Anniversary. The commemoration on 15 November 2017 commenced in the morning with the Special Meeting of the SEAFDEC Council which adopted the “Resolution on the Future of SEAFDEC”, including the “Vision, Mission, and Strategies Towards 2030.” Afterwards, the Golden Anniversary Celebration was held in the evening and officiated by His Excellency Air Chief Marshall *Prajin Juntong*, Deputy Prime Minister of the Kingdom of Thailand. The Golden Jubilee of SEAFDEC displayed not only the achievements, but also the future unwavering commitment of SEAFDEC and Member Countries to work together to ensure that the fisheries sector would continue to provide sustainable contribution to food security and human well-being in the Southeast Asian region.

During this quarter, SEAFDEC has also organized significant events that are beneficial to the Member Countries. One was the 40th Meeting of the SEAFDEC Program Committee which was convened

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Golden Jubilee of SEAFDEC celebrated with much fanfare



The Southeast Asian Fisheries Development Center (SEAFDEC) commemorated its 50th Anniversary on 15 November 2017 in Bangkok, Thailand with the Government of Thailand as the most gracious host. The Golden Jubilee celebration depicted the feat and achievements of SEAFDEC during the

past fifty years and its desires for the years beyond, in revolutionizing the sustainable fisheries development of Southeast Asia. The Golden Anniversary Celebration of SEAFDEC was officiated by His Excellency Air Chief Marshall *Prajin Juntong*, Deputy Prime Minister of the

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SEAFDEC convenes the 40th Program Committee and 20th FCG/ASSP Meeting



SEAFDEC organized the 40th Meeting of Program Committee (40PCM) on 27-29 November 2017 in Bangkok, Thailand to review the projects implemented in 2017 and endorse the projects and activities that will be implemented in 2018. The Meeting was hosted by the Marine Fisheries Research Department (MFRD) in cooperation with the

SEAFDEC Secretariat. The 40PCM reviewed 23 projects under the FCG/ASSP mechanism, 20 of which are categorized under five Program Thrusts, two under special projects, one new project; as well as two pipeline projects which will be implemented in 2018. In addition, the Program Committee


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to discuss and review the programs and activities of SEAFDEC. It was organized back-to-back with the 20th Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership which addressed the issues and concerns on the sustainable development of fisheries and came up with policy recommendations for endorsement to the higher authorities of SEAFDEC and the ASEAN.

Other significant regional events organized by SEAFDEC included the Consultation to Establish Sub-regional MCS Network in Gulf of Thailand which focused on exercising MCS practices and combating IUU fishing through coordination of existing mechanism. The 4th Meeting of the Scientific Working Group on Neritic Tuna Stock Assessment was also convened to review the results of stock and risk assessment of longtail tuna and kawaka, and discussed the results of the genetic study on neritic tunas in the region. SEAFDEC also continued to conduct training courses including capacity building on skipjack otolith collection, fishing vessel operations, and fish handling techniques.

The High Level Consultation on Ecosystem Based Approach to Fisheries Management (EAFM) for Leaders, Executives and Decision Makers was organized in collaboration with Mekong River Council (MRC) which aimed to provide information to leaders and decision makers to understand and support EAFM to achieve sustainable fisheries. SEAFDEC also collaborated with IUCN through Mangrove for the Future (MFF) and Stock Environmental Institute (SEI) for the regional study on gender patterns in coastal and marine resources management to improve understanding on the state of men and women in the fisheries sector in Southeast Asia. 

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Golden Jubilee of SEAFDEC celebrated with much fanfare

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Kingdom of Thailand, on behalf of the Prime Minister His Excellency *Prayuth Chan-Ocha*. In attendance were the Ministers and representatives from Ministries responsible for fisheries of the 11 SEAFDEC Member Countries; the SEAFDEC Council of Directors and delegations led by the current Chairperson of the SEAFDEC Council *Mr. Abdul Halidi bin Mohd Salleh*; representatives from Embassies of the SEAFDEC Member Countries in Thailand; representatives from national, regional and international organizations working on fisheries and donor agencies; as well as guests and distinguished personalities who made significant contributions to SEAFDEC. The SEAFDEC Secretary-General *Dr. Kom Silapajarn*, Deputy Secretary-General *Dr. Kaoru Ishii*, the Chiefs and senior officials of the SEAFDEC Secretariat and Departments also attended the Celebration.


The celebration of the Golden Jubilee of SEAFDEC started with the Special Meeting of the SEAFDEC Council in the morning of 15 November 2017 which adopted the “Resolution on the Future of SEAFDEC,” including the “Vision, Mission, and Strategies Towards 2030.” The said Resolution spells out the necessary actions that SEAFDEC would undertake beyond its Fiftieth Anniversary, for the sustainability of the Southeast Asian fisheries.

The Anniversary Program that followed in the evening, started with a parade of flags of the SEAFDEC Member Countries elucidating the slogan “United to be One,” while displaying in brief the history of the establishment of SEAFDEC. This was followed by the showing of a video on the development of SEAFDEC and its persistent efforts towards the sustainable development of Southeast Asian fisheries throughout the past 50 years. Providing more elaboration of the information in the video presentation was the third



The current Chairperson of the SEAFDEC Council, *Mr. Abdul Halidi bin Mohd Salleh*

Secretary-General of SEAFDEC *Dr. Deb Menasveta*, who in his Keynote Address not only expounded the development of SEAFDEC throughout the past 50 years but also suggested the best ingredients towards the sustainability of SEAFDEC in the future. After the formal Opening Ceremonies and amidst good music and beautiful performances, tokens of appreciation were given to the Governments hosting the SEAFDEC Departments, significant collaborating partners and personalities who made significant contributions to SEAFDEC’s achievements. The Anniversary Book “A Half-century Journey of SEAFDEC: Significantly Revolutionizing Southeast Asian Fisheries Towards Sustainability” was then launched, the copies of which were distributed to all the guests.

SEAFDEC was established on 28 December 1967, with Japan, Singapore and Thailand as the original Members, and currently comprises 11 Members. These are Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. The 50th Anniversary of SEAFDEC therefore displayed not only the past achievements, but also the future unwavering commitment of SEAFDEC and all Members in working together to ensure that the fisheries sector would continue to provide sustainable contribution to food security and well-being of the peoples in the Southeast Asian region. 

SEAFDEC convenes the 40th Program Committee and 20th FCG/ASSP Meeting

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Members suggested that the Key Performance Indicators (KPIs) should be developed for all SEAFDEC projects to be used as tool for the evaluation of projects. On the new Resolution on the Future of SEAFDEC Vision, Mission, and Strategies Towards 2030, the 40PCM suggested that SEAFDEC should start to harmonize the programs with the new six strategies. Moreover, the Meeting took note of the draft Japanese Trust Fund 7 (JTF-7) framework together with project proposals which will start in 2020 with duration of approximately five years.

Back-to-back with the 40PCM, the 20th Meeting of Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (20FCG/ASSP) was held from 30 November to 1 December 2017. The Meeting

highlighted the follow-up actions carried out by SEAFDEC and ASEAN Member States (AMSs) with respect to the directives given at the 49th Meeting of the SEAFDEC Council, meeting of ASEAN bodies related to fisheries, and other meetings of SEAFDEC. Status of the programs and activities implemented by SEAFDEC in 2017 under the FCG/ASSP mechanism endorsed by the 40PCM, the progress of proposals under ASSP framework, and important issues on the fisheries sector of the AMSs, especially on stock assessment and combating IUU fishing, were also discussed. The results and recommendations of the 20FCG/ASSP would be submitted to the SEAFDEC Council and the ASEAN Sectoral Working Group on Fisheries (ASWGF) for endorsement to the higher authorities of ASEAN. ✠



Eighteenth Meeting of SEAFDEC Information Staff Program convened

The 18th Meeting of SEAFDEC Information Staff Program (18ISP) was organized in Singapore from 10 to 12 October 2017. Hosted by MFRD, the Meeting was attended by the information-related officers and staff from the SEAFDEC Secretariat and Departments, and reviewed the progress of implementation of the Information Strategies of SEAFDEC which are aimed at enhancing SEAFDEC visibility and strengthening communications among the SEAFDEC Departments and Secretariat.

During the discussion of the progress made by the Secretariat and Departments

in implementing the Information Strategies, recommendations were made for the improvement of the corresponding activities. With regards to the progress in the establishment of SEAFDEC Institutional Repository which is meant to enhance public access to publications produced by the Secretariat and Departments, it was noted that some Departments have not yet established their respective repositories due to certain technical constraints. In this connection, the Meeting agreed that those Departments needing assistance from other Departments could communicate such concern through the Secretariat for subsequent action. Moreover, a review of

SEAFDEC holds its 2017 Department Chiefs' Meeting



SEAFDEC Department Chiefs and staff attending the DCM

SEAFDEC organized the Department Chiefs' Meeting on 2 December 2017 in Bangkok, Thailand. The Meeting was attended by SEAFDEC Department Chiefs and staff which discussed matters on the follow-up actions from the 49th Council Meeting, 40PCM, and 20FCG/ASSP, as well as the corresponding follow-up actions undertaken by the SEAFDEC Departments. During the Meeting, Information-related matters were discussed, especially the repository system which has been developed by the Secretariat and Departments. For the Resolution on the Future of SEAFDEC, the Meeting noted that the new framework of programs aligned with the new strategies under the Resolution would be applied and reported during the next Program Committee Meeting in 2018. ✠



Participants during the Meeting

the existing Information Strategies and development of a draft revised Notes for Editing and Harmonizing SEAFDEC Style, were proposed for consideration during the forthcoming Department Chiefs' Meeting. ✠

DEPARTMENTAL ACTIVITIES

AQD displays new tech, programs at Agrilink 2017

Four new aquaculture technologies and a program on reviving the giant tiger shrimp industry were showcased by SEAFDEC Aquaculture Department (AQD) during the 24th Agrilink agribusiness exhibition last 5-7 October 2017 at the World Trade Center in Pasay City, Philippines.

Among the technologies featured by AQD was a “cloning” technique that improves the growth of seaweed. Aside from improving the growth rate, the technique makes the seaweed more resistant to diseases.

An innovative method of using pouches to rear oysters was also displayed. The new method (unlike the traditional stake, hanging, longline, and lattice methods) produced single oysters in almost uniform sizes and with meatier flesh.

The production of soft-shell crabs using an “individual crab culture system” was another display at the exhibition.



AQD Chief Dan Baliao and Scientist Dr. Maria Rowena Eguia entertain South African diplomats who visited the exhibition



Visitors show interest in soft-shell crab farming technology

The new culture system, adopted from projects in Thailand and Myanmar, prevents cannibalism among crabs during molting and allows all parts of the crab to be eaten when cooked.

Another commodity featured at SEAFDEC/AQD’s booth is abalone, a high-value gourmet seafood export of the Philippines. Slowly losing stock in the wild due to high fishing pressure, AQD initiated the Community-based Resource Enhancement project with funding support from the Japanese Trust Fund. The project involves the release

of hatchery-bred abalone juveniles in suitable protected sites that can rebuild depleted resources, supplement livelihoods, and improve the supply of abalone in local and export markets.

AQD’s plans on reviving the giant tiger shrimp industry were also highlighted. The Department committed to create new and efficient culture technologies, find effective and practical disease prevention and control strategies, and provide technical assistance through training and information dissemination. ❖

Addressing gaps in shrimp farming

As AQD’s banner program “Oplan Balik Sugpo” is at hand, Chief *Dan Baliao* echoed the concerns of shrimp farmers to the scientists to immediately address gaps in shrimp farming. The approaches to prevent disease – the major problem in shrimp farming – were discussed during the AQD in-house review and planning workshop held on 12-13 December 2017. For decades, shrimp farming has become a risky business venture due to many problems besetting the industry.

The Fish Health Section reported that AQD has developed technology for rapid detection of diseases in shrimp stocks. It is now developing a technique of culturing shrimp in a “safe season” taking into consideration factors like temperature, photoperiod, and bird migration.



Chief Dan Baliao presented AQD's plans in reviving the shrimp industry during the launching of the “Oplan Balik Sugpo” last 17 November 2017 at SMX Convention Center in Bacolod City

Optimizing the use of probiotics is also being prioritized for implementation in 2018.

The shrimp broodstock development team is now into production of good

quality fry. The team will demonstrate the technology of an improved scheme of broodstock selection by thorough screening in different stages from grow-

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Algal paste a boon for emerging sea cucumber hatcheries

The use of algal paste will make it easier for hatcheries to operate without the need to maintain a laboratory facility and an array of expensive algal culture tanks to produce plankton as feed for aquaculture species.

“It is very expensive to put up your very own phycolgy laboratory and it is equally difficult to find a laboratory that produces enough food for our hatcheries,” said Ms. Glycinea De Peralta, a professor of Cagayan State University in the Philippines and participant in a special training course on the “Preparation and use of commercially available algae concentrates for hatchery production of sea cucumbers (sandfish)” held on 23 to 30 October 2017 at AQD Main Station in Tigbauan, Iloilo, Philippines.

Concentrated algae in paste form is an alternative for live algal food for many aquatic animals during their early development phase in the hatchery. Some commercial variants have been successfully tested for use in sandfish larval culture by Dr. Nguyen Dinh Quang Duy, an aquaculture practitioner and researcher from the Research Institute of Aquaculture 3 (RIA 3) in Nha Trang, Viet Nam. Dr. Duy is the lead resource person for the training course attended by 14 participants.

The paste is commercially-available, cost-effective, handy and free from contaminants. Even small-scale hatchery operators can potentially engage in sandfish production and eventually save money, time, and effort. Algae pastes

can be easily stored in an ordinary refrigerator and can last up to six months.

Dr. Jon Altamirano, Associate Scientist at SEAFDEC/AQD, revealed that the concentrated algal paste is yet to be locally available in the Philippines but AQD is already looking forward to studying and assessing this technology for adoption. *“It is hard [for local operators] to source this imported product but AQD is looking into formulating and producing our very own algae paste,”* Dr. Altamirano said.

“Through this training, it would be easier for us to just purchase the algae paste and use it to feed our [larval] commodities,” said Ms. De Peralta.



Indian Nationals learn algal culture at AQD

Algae or live food organisms play a crucial role in all aquaculture systems. Hatchery operators both in the Philippines and neighboring countries could not get a continuous supply of live food organisms from the natural environment hence, the need for algal culture.

According to former SEAFDEC/AQD researcher and live food expert Ms. Milagros de la Peña, AQD had been developing and perfecting the technology for many years and is now expecting hatcheries to apply the principles and replicate the system.

“We learned great knowledge [from SEAFDEC/AQD] and we will indeed



Trainees Mr. Reddy, Mr. Dodda, and Mr. Selvaraj during one of the laboratory activities of the training course

apply all of these [knowledge] in our hatcheries back home,” said Mr. Soma Sekhara Satya Prasad Dodda, technical manager and trainee, on his experience during AQD’s Algal Culture and Isolation

course held at Tigbauan Main Station last 4 to 11 December 2017. Together with Mr. Dodda are laboratory technician Mr. Vinoth Selvaraj and technician Mr. Prashanth Pichila Raguntha Reddy – all from BMR Industries in Tamil Nadu, India.

The one-week course included lectures and hands-on activities including media preparation for isolation, counting techniques, sampling, application of microalgae in aquaculture, and monitoring. AQD Chief Mr. Dan Baliao expressed his gratitude to the trust given by the trainees to AQD and their willingness to support the efforts of fostering aquaculture.



Addressing gaps in shrimp farming

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out to broodstock development. The quarantine and biosecurity measures are now being put in place and refined.

The Nutrition and Feed Development Team, on the other hand, is set to develop low-cost diets using alternative local feed ingredients that could possibly lower the cost by 40% compared to

commercial feeds. Finding an ideal diet for shrimp is a recurring concern of farmers and operators. AQD is looking to collaborate with feed millers for the large-scale production of low-cost feeds.

AQD vows to revive the shrimp industry in the Philippines and to make it globally-competitive in the world

market. During the National Shrimp Congress held in Bacolod City recently, the strategy suggested that may work for the Philippines is to produce white shrimp for the domestic market and tiger shrimp for the export market. Shrimps can also be cultured along with other high-priced species like siganid or rabbitfish and mangrove crab.



IFRDMD Chief attends the meeting held by Ministry of Foreign Affairs of Indonesia

In welcoming the ASEAN Economic Community (AEC), the Ministry of Foreign Affairs, Republic of Indonesia through the Directorate General of Foreign Cooperation held a “Socialization and Supporting Suggestion Policy for Utilization of Fishery Development in ASEAN as the Improving Impact of Indonesian Fishery Market Access to South East Asia.” The event was held in Palembang on Tuesday, 7 November 2017. Besides representatives from the Ministry of Foreign Affairs, also invited to the event were several resource persons, the Governor of South Sumatera represented by *Mr. Nasrun Umar*; Expert Staff of Ministry of Marine Affairs and Fisheries, *Dr. Ahmad Poernomo*; Acting Chief of the Department of Marine and Fisheries South Sumatera Province, *Widada Sukrisna*; and the Chief of IFRDMD, *Dr. Arif Wibowo*.

Representing the Governor of South Sumatera, Regional Secretary of South Sumatera, *Mr. Nasrun Umar* expressed

his optimism to see the current economic development in Palembang City. Palembang should increase economic independence in order to welcome the AEC, with strengthened and potential economic sectors such as fisheries and marine sectors. At the end of his speech, he stated that the South Sumatra Government strongly supports the economic development of the community, and hope this event will be able to provide the benefits for all.

The SEAFDEC Inland Fishery Resources Development and Management Department (IFRDMD) will continue to contribute to the development of fisheries in Indonesia, especially in inland waters. This was revealed by Chief IFRDMD, *Dr. Arif Wibowo* in his speech. IFRDMD is a regional institution that is directly connected with the Research Institute for Inland Fisheries and Extension under the auspices of the Ministry of Marine Affairs and Fisheries. Around 60 million people depend on inland fisheries sector



Chief of IFRDMD (left) with representatives of the Ministry of Foreign Affairs, Ministry of Marine Affairs and Fisheries, and Government of South Sumatera

in Indonesia. Therefore, the concept of fisheries management should be in harmony with the economic community. He also explained how important and helpful the existence of SEAFDEC/IFRDMD in Indonesia is, especially in Palembang, in terms of capacity building, and establishing networking and cooperation with outsiders.



IFRDMD Chief joins special tour in Australia

Representatives from six countries all working together on fish passage and fish migration at an international level were in Deniliquin for a special tour during 2-9 December 2017. Coordinated by Charles Sturt University, the visitors from Brazil, Indonesia, Viet Nam, Lao PDR, the Netherlands, and Australia toured the agricultural infrastructure that has been upgraded in the last decade to be more fish friendly. The Chief of SEAFDEC/IFRDMD joined the tour and was accompanied by IFRDMD researcher, *Vipen Adiansyah*.

The purpose was to showcase the achievements on fish passage projects in the region, to lead researchers from SEAFDEC, which has 11 Member Countries and is an autonomous inter-governmental body. It is mandated to develop and support the management of fisheries in the Southeast Asian region.



Associate Professor *Lee Baumgartner* from Charles Sturt University has been working on fish passages for decades — both here in Australia and abroad, and primarily in Southeast Asia where a decade-long program has been running between Australia and Lao PDR. Also providing local knowledge during the trip was Deniliquin’s *Dr. John Conallin* who said that the Murray Valley region has invested significantly in upgrading agricultural infrastructure to be more fish friendly, and this is now a showcase for the world.



The delegates visited Yarrowonga, Gulpa, the Edward River offtake, Stevens Weir and the Yallakool offtake, and ended in Canberra for meetings with members of the Commonwealth Government. The participants also enjoyed a houseboat cruise on the Edward River, and visit to Deniliquin’s CBD and landmarks. They were impressed and there was a lot of discussion on how the Murray Valley model on fish passage could be incorporated into other countries in Southeast Asia.



Fishing vessel operations training course



Students from Tinsulanonda Fisheries College participated in the training course on Fishing Vessel Operations

SEAFDEC/TD in collaboration with the Vocational Education Commission of Thailand organized a four-month training course on “Fishing Vessel Operations” from 10 October 2017 to 15 February 2018. Ten students from Tinsulanonda Fisheries College, Songkhla Province participated in the training which aimed to provide skills and relevant experiences to students which they can use for their future career. The training course consisted of six

subjects, namely: ship construction and stability, marine communication, laws and regulations of navigation, navigation technology practices, marine machinery technology and practices, and fishing gear technology and practices. Moreover, as part of the practical session, the students had the opportunity to conduct hands-on practice onboard the M.V. SEAFDEC and the M.V. PLALUNG, and visited various shipping facilities relevant to the training. ☒

TD conducts experimental research workshop on fish passage

The “Experimental Research Workshop on Vertical Slot Fish Passage Design to Facilitate Migration of Indigenous Fish Species in the Southeast Asian Region” was organized from 4 to 8 December 2017 at SEAFDEC/TD, Samut Prakan, Thailand. Ten participants from the Department of Fisheries of Thailand, SEAFDEC Secretariat, and TD attended the Workshop which came up with information on the fish migration behavior at 5, 8, and 11-degree slope design of the vertical-slot experimental fishway. Also discussed during the Workshop was the appropriate water depth passing through the compartment to facilitate the upstream migration of indigenous fish species.

Through this Workshop, the fishway facility at TD was proved to be able to serve experiments on migration of indigenous aquatic species. The



Experiment on fish migration behavior at 5, 8, 11-degree slope design of the vertical-slot fishway during night time

Workshop also discussed and identified areas for improvement of fishway facility, and researches that should be undertaken in the future. Specifically, recommendation on the need to conduct further R&D to improve the migration of fish across the cross-river barrier in Thailand and Southeast Asian region was also raised. ☒

TD organizes Fisherman Run 2017



SEAFDEC/TD organized “SEAFDEC Mini-marathon: Fisherman Run 2017” on 24 December 2017 at Samut Prakan, Thailand as part of the celebration of 50th Anniversary of SEAFDEC. The activity aimed to enhance and strengthen the health of SEAFDEC staff and the public as well as promoting the visibility of SEAFDEC. Moreover, the income of the activity was donated to six schools around TD as scholarship funds. ☒

Training on website improvement for IFRDMD organized



IT staff from the Secretariat and Departments during the training course

During the 18th Meeting of SEAFDEC Information Staff Program (ISP), the Meeting expressed the view that since IFRDMD is now developing its new Departmental Website, the experiences of the other Departments (AQD, TD, and the Secretariat) in developing their websites should be mobilized to support IFRDMD. SEAFDEC Secretariat therefore organized on-the-job training on Website Improvement for IFRDMD on 18-22 December 2017 in Palembang,

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AQD boosts the seaweed industry using tissue culture technology



Farmers harvest seaweeds from the sea

SEAFDEC/AQD has developed a technology of producing seaweeds cultivars by micropropagation, a method of tissue culture. The technology is currently being disseminated through training and on-site demonstration. Additionally, the cultivars were tested on farms in different provinces in the Philippines. Farm trial results show remarkably high growth rates of *Kappaphycus* plantlets from tissue culture ranging from 6-10%

per day. This technology is now ready for commercialization to enhance the seaweed industry.

Decline in the seaweed production in the last decade was mainly due to poor quality of seedlings and diseases. This could be due to continuous cutting of seedlings since seaweed farming started. Production of fast-growing seedlings became a challenge but the widespread adoption of the micropropagation technology developed by AQD is seen to boost the industry once more.

Seaweed production is mainly composed of red seaweeds *Kappaphycus* and *Euचेuma*, which are a good source of carrageenan. Aside from its usage as a thickener, binder, stabilizer, and suspension agent in food products, carrageenan also has biomedical and industrial applications. ❖

Students visit TD



SEAFDEC/TD welcomed students and lecturers from the Faculty of Fisheries, Kasetsart University (Bangkhen and Kamphheang Saen Campuses) on 7 October 2017, and the Faculty of Animal Sciences and Agricultural Technology, Silpakorn University, Phechaburi Information Technology Campus on 1 December 2017. The objectives of the visits were to increase the knowledge and experience of the students outside the study room. The lecture on “Fisheries Technology in the ASEAN” including the roles and activities of TD was delivered to students. Moreover, the students had the chance to observe TD facilities such as fishing and marine engineering workshop and the M.V. SEAFDEC. ❖

Private company and Fisheries Committee from Myanmar pay a visit to TD



Two staff from International TRUST Business Consultancy Co., Ltd and nine members from National Parliament Fishery Committee from Myanmar visited SEAFDEC/TD on 27 December 2017. The objective of the visit was to study and discuss the fishing activities of SEAFDEC. TD introduced its roles and activities in promoting sustainable development of fisheries in the region and discussed on countermeasures to prevent IUU fishing in Southeast Asia. Moreover, the visitors also visited TD facilities such as fishing and marine engineering workshop and the M.V. SEAFDEC. ❖

Japan continues to fund CBRE projects, to replicate project in Bicol region



AQD technician harvests abalone from the community resource enhancement site at Molocaboc Island in Sagay City, Philippines

Satisfied with the success of the Community-based Resource Enhancement (CBRE) project in Sagay City in the Philippines, Japan will continue its funding and even the project’s replication in the Bicol region next year. The ongoing project in Molocaboc Island, Sagay City will be continued until 2019 to work on the establishment of a solar-powered abalone hatchery to supply the seedstock requirements for stock enhancement and sea ranching or culture. The project will also fine-tune project exit strategies during the period.

On the other hand, Japan through the Japan International Research Center for Agricultural Sciences (JIRCAS) is also funding the Integrated Multi-Trophic Aquaculture (IMTA) project – an integrated culture of milkfish, seaweeds, and sandfish – in Pandaraonan, Guimaras, Philippines. The IMTA project aims to sustain the economic benefits and entrepreneurial skills of fisherfolk, including women. The project gained positive feedback from the fisherfolk. *Dr. Nerissa Salayo*, the main proponent of the project said that the project will enable the fisherfolk and the women sector in fisheries to be trained to become less dependent on government support and services.

Recognizing the importance of aquaculture as a major source of food fish, AQD takes a pro-active role in addressing the needs of the fisheries industry. ❖

SEAFDEC/IFRDMD bids farewell to Deputy Chief Dr. Honda

SEAFDEC/IFRDMD held a farewell ceremony for its Deputy Chief, *Dr. Satoshi Honda* after serving for two years and nine months. The Chief of IFRDMD, *Dr. Arif Wibowo* expressed his gratitude and deep appreciation



Dr. Arif Wibowo (left), Dr. Satoshi Honda, and his wife during the farewell ceremony

for what *Dr. Honda* has done for the advancement of IFRDMD. In response, *Dr. Honda* expressed his gratitude for the support of all IFRDMD staff during his time as the Deputy Chief. He reiterated that IFRDMD is a new Department of SEAFDEC and establishing it from zero was a great challenge, but he is delighted that all staff worked together efficiently.

In this connection, the Government of Japan nominated *Dr. Takuro Shibuno* to be the new Deputy Chief of SEAFDEC/IFRDMD and Japanese Trust Fund Co-Manager for IFRDMD to serve a two-year term starting January 2018. ☒

Youths from Indonesia gain experience at TD

SEAFDEC/TD welcomed 95 young Indonesians from the Youth Center to Act for Nation on 11 October 2017. The purpose of the visit to TD was to build the capacity of the youths in Indonesia. Lecture on “Fisheries Development Strategy in Thailand in Order to Achieve Sustainable Development Goals” was rendered to the visitors to inform them of the roles and activities of TD in the Southeast Asian region. Furthermore, the youths explored the TD facilities such



as the fishing and marine engineering workshop, library, and the M.V. SEAFDEC 2. ☒

TD promotes fisheries co-management in Lao PDR

SEAFDEC/TD conducted some activities to promote community-based resources management/co-management in Banmai Namprakan Village, Hinboon District, Khammouane Province, which is a pilot site in Lao PDR. As part of the activities, monitoring of the established Fisheries Management Committee

(FMC) and survey on fish markets were conducted from 2 to 6 October 2017. In addition, a meeting on declaration and announcement of rules and regulations on fisheries conservation area in the pilot site was also conducted with the local people and stakeholders in attendance. ☒



Burapha University students explore TD facilities



Students from Burapha University practice net and knot repair during visit to TD

Forty-nine marine technology students and one lecturer from Burapha University, Chanthaburi Campus were warmly welcomed at SEAFDEC/TD on 18 November 2017. The goal of the visit was to enhance their knowledge and experience outside the study room. The students were informed about the role of TD and its activities conducted in the Southeast Asian region as well as the role of SEAFDEC in resolving fisheries issues such as IUU fishing in the region. Moreover, the students also practiced net and knot repair and toured around TD facilities such as the M.V. SEAFDEC and fishing and marine engineering workshop. ☒

Training on website improvement for IFRDMD organized

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Indonesia. Supported by the Japanese Trust Fund, the Training was attended by seven IT staff from the Secretariat and Departments. The objectives of the Training were to improve IFRDMD website and also to harmonize the websites among SEAFDEC Departments in order to portray the unity and make them user-friendly. In order to enhance the visibility SEAFDEC, the participants agreed to customize the respective Departmental websites, such as having a uniform SEAFDEC logo, layout, and font type. Moreover, the content management system (CMS) software was introduced during the training. The participants practiced on developing the website using the CMS software on the demo server. ☒

SPECIAL REPORT

Resolution on the Future of SEAFDEC: Vision, Mission, and Strategies Towards 2030

In conjunction with the celebration of its Golden Jubilee on 15 November 2017, SEAFDEC organized the Special Meeting of the SEAFDEC Council to consider and adopt the “Resolution on the Future of SEAFDEC,” including the “Vision, Mission, and Strategies Towards 2030.” The Resolution set forth the six strategies and actions that should be undertaken by SEAFDEC beyond its 50th year in order to achieve its vision of “Sustainable management and development of fisheries and aquaculture to contribute to food security, poverty alleviation and livelihood of people in the Southeast Asian region.”

We, the Council Directors of SEAFDEC, on the occasion of the Special Meeting of the SEAFDEC Council in Bangkok, Thailand on 15 November 2017, organized in conjunction with the 50th Anniversary of SEAFDEC,

Recognizing that provisions in various international instruments such as the United Nations Convention on the Law of the Sea (UNCLOS, 1982), the UN Sustainable Development Goals (SDG, 2015), the FAO Code of Conduct for Responsible Fisheries (CCRF, 1995), and relevant International Plans of Action are crucial for the development of programs and activities towards enhancing the practices for sustainable fisheries development in the Southeast Asian region;

Affirming the need to implement actions in line with regional fisheries policy frameworks, particularly the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region adopted by the ASEAN-SEAFDEC Ministers and Senior Officials responsible for fisheries during the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 “Fish for the People 2020: Adaptation to a Changing Environment” in June 2011;

Also affirming the need to support the Member Countries of SEAFDEC in the implementation of regional guidelines and policy recommendations developed by the SEAFDEC in collaboration with the Member Countries;

Bearing in mind the need to enhance cooperation with ASEAN under the ASEAN-SEAFDEC Strategic Partnership (ASSP) framework, support the implementation of activities under the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) mechanism, and take into consideration the “Strategic Plan of Action on ASEAN Cooperation in Fisheries (2016-2020)”; and

Recognizing the need for SEAFDEC to continue playing an active role in enhancing the collaboration among the Member Countries, as well as partnerships with prominent regional, international organizations and donor agencies towards the sustainability of fisheries and aquaculture in the Southeast Asian region;

Being aware of the fact that regional guidelines and policy recommendations and frameworks developed under different organizations, mechanisms and arrangements beyond Southeast Asian region need to be taken into account; and

Resolved to adopt the Vision, Mission, and Strategies of SEAFDEC towards 2030, as follows:

I. VISION

“Sustainable management and development of fisheries and aquaculture to contribute to food security, poverty alleviation and livelihood of people in the Southeast Asian region”

II. MISSION

“To promote and facilitate concerted actions among the Member Countries to ensure the sustainability of fisheries and aquaculture in Southeast Asia” through:

- i. **Research and development** in fisheries, aquaculture, post harvest, processing, marketing of fish and fishery products, socio-economics, and the ecosystem to provide reliable scientific data and information.
- ii. **Formulation and provision of policy guidelines** based on the available scientific data and information, local knowledge, regional consultations and prevailing international measures.
- iii. **Technology transfer and capacity building** to enhance the capacity of Member Countries in the application of technologies, and implementation of fisheries policies and management tools for the sustainable utilization of fishery resources and aquaculture.
- iv. **Monitoring and evaluation** of the implementation of the regional fisheries policies and management frameworks adopted under the ASEAN-SEAFDEC collaborative mechanism, and the emerging international fisheries-related issues including their impacts on fisheries, food security and socio-economics of the region.

III. STRATEGIES

1. **Securing the sustainability of fisheries to contribute to food security, poverty alleviation and livelihood of people in the region:**

- Assessment of important marine fish stocks in the region and development of guidelines on management measures for such fish stocks;
- Assessment of the status of inland fisheries, and compilation of baseline information on policies and regulations related to inland fisheries in the Member Countries;

- Compilation of scientific data and information including local knowledge on both inland and marine fisheries to support policy formulation and management for sustainable fisheries;
- Development and promotion of regional measures and tools for combating IUU fishing;
- Development of innovative management tools and concepts that are applicable for fisheries in the region;
- Development and promotion of responsible fishing technologies, including energy optimization, carbon reduction and reduction of post-harvest losses onboard fishing vessels; and
- Integration of habitat and fisheries management, and provision of support for the conservation of important fishery resources.



Council Directors and Head Delegates during the Special Meeting of the SEAFDEC Council in 2017

2. Supporting the sustainable growth of aquaculture to complement fisheries and contribute to food security, poverty alleviation and livelihood of people in the region:

- Development, verification and promotion of responsible and sustainable aquaculture technologies, to improve the quality of broodstocks and technologies on seed production;
- Finding alternatives to fish meal in feed formulation and promoting the economical use of feeds;
- Development of practical fish health management strategies including the establishment of early warning system for aquatic animal diseases;
- Generation of appropriate technologies for rural aquaculture to provide livelihood and alleviate poverty; and
- Compilation of scientific data and information including local knowledge to support policy on sustainable aquaculture.

3. Ensuring the food safety and quality of fish and fishery products for the Southeast Asian region:

- Development and promotion of technology to produce high quality, healthy and safe fish and fishery products to meet the international standards;
- Improving endogenous processing technologies to standard or acceptable levels;
- Regular monitoring of chemical and biological contaminants to ensure seafood safety; and
- Promotion of seafood quality assurance systems for fish processing establishments in the region.

4. Enhancing trade and compliance of the region's fish and fishery products with market requirements:

- Strengthening the cooperation among Member Countries to implement international standards in trade of fish and fishery products within the ASEAN region;
- Development of regional standards, policies and guidelines to enhance intra-regional/international trade; and
- Development and promotion of traceability system for fish and fishery products in the region.

5. Addressing cross-cutting issues, such as labor, gender and climate change, where related to international fisheries

- Provision of platforms for monitoring and evaluating the impacts of emerging international fisheries-related issues on the fisheries and economic sectors in the region;
- Organizing fora to enhance the awareness of Member Countries on international fisheries-related issues and coordinating the development of the ASEAN Common Positions to address the regional concerns on the issues;
- Monitoring of the possible impacts of and raising awareness on climate change to fisheries and aquaculture, and development of adaptation and mitigation measures in response to such impacts;
- Development of regional initiatives to promote the consideration of environmental and biodiversity conservation issues in fisheries and aquaculture management; and
- Recognition of the importance of small-scale fisheries, welfare of labor in fisheries, safety at sea, and gender equality in the fisheries and aquaculture sector.

6. Empowering SEAFDEC to strengthen its roles in the region and to improve its services to Member Countries:

- Strengthening SEAFDEC's capacity to support the ASEAN's efforts to adopt and implement regional policies and guidelines, as well as ASEAN's efforts to monitor the implementation of such regional policies and guidelines;
- Enhancing the human resource capability of the Member Countries to support, adopt and nationalize regional policies and guidelines;
- Expanding the network with prominent organizations in relevant fields and engaging actively in international fisheries fora;
- Enhancing human resources within the SEAFDEC organization and pooling expertise in the region to improve the performance of SEAFDEC; and
- Promoting SEAFDEC to wider international communities to gain more support from organizations, governments and donors.



REGIONAL PROGRAMS

IFRDMD researcher joins Training on Molecular Genetics Data Analysis



Research Center for Bioinformatics and Bioscience, Yokohama, Japan

Based on the study visit program under the Business Consignment Agreement signed by Marino Forum-21 and SEAFDEC, the “Training on Molecular Genetics Data Analysis (Bioinformatics)” was organized from 5 November to 28 December 2017 at Nagoya City University and the Research Center for Bioinformatics and Bioscience (RCBB). The Training aimed to enhance the knowledge and capacity of fishery officers from SEAFDEC Member Countries on the techniques for analyzing molecular data. Separated into two parts, the first part of the Training was held in Nagoya City University from 5 November to 6 December 2017, while the second part at the RCBB on 7-28 December 2017. A researcher from SEAFDEC/IFRDMD, *Dwi Atminarso*, joined the Training.

The Training at Nagoya City University was supervised by *Prof. Yoshinori*



Laboratory facilities in Nagoya City University

Kumazawa and *Wahyu Endra Kusuma* from 6 November to 4 December, 2017. The Training aimed to publish a paper from the data on complete mitochondrial DNA of *Pectenocypris* sp. In the beginning of the Training, the participants obtained the basic understanding of DNA structure, transcription to RNA, and translation to protein. After the basic understanding of DNA, the Training continued to analyze the complete mitochondrial data using several softwares. In the last 2 weeks, the training focused on preparing the manuscript which was revised by *Prof. Kumazawa*. The paper will be submitted to mitochondrial DNA part B Journal in January 2018.

For the second part of the Training, at the beginning, *Dr. Masaya Katoh*, Director of RCBB showed the facilities of the research center. The Training was divided into several phases, such as: species identification (multiplex and



Graduate School of Natural Science, Nagoya City University



Director of RCBB (left) and Dr. Takuro Shibuno, nominated by Japan to serve as Deputy Chief of IFRDMD in January 2018 (right)

DNA barcoding), environmental DNA, population structure, and bioinformatics (gene expression).

One of the resource persons, *Dr. Seinen Chow* has more than 35 years of experience on species identification using multiplex technique and DNA barcoding. Besides species identification, the participants also conducted some laboratory work to determine the best temperature for annealing crustacean samples using a thermal cycle machine. Environmental DNA as second material for the training was supervised by *Dr. Satoshi Nagai* and *Dr. Yuki Hongo*. Field sampling was conducted to collect marine water samples and the DNA was extracted in the laboratory. *Dr. Nagai* discussed about environmental DNA analysis through his publication, while *Dr. Hongo* introduced qPCR real time PCR analyses. *Dr. Masashi Sekino* and *Dr. Reiichiro Nakamichi* discussed about analysis of population structure using the arlequin software. *Dr. Nakamichi* introduced the R software to analyze some environmental factors and determine which is the highest influencing factor. *Dr. Motoshige Yasuike* determined the highly gene expression using the blast go software. In the last training in Yokohama the participants visited Yokosuka Laboratory in Yokosuka city accompanied by *Dr. Katoh* and *Dr. Niwa*. ☒

MFRDMD hosts the Fourth SWG Meeting on Neritic Tuna Stock Assessment

With funding support from the SEAFDEC-Sweden Project, SEAFDEC Marine Fishery Resources Development and Management Department (MFRDMD) organized the “Fourth Meeting of the Scientific Working Group (SWG) on Neritic Tuna Stock Assessment in Southeast Asian Waters” from 7 to 9 November 2017 in Kuala Lumpur, Malaysia. The Meeting was attended by the SWG members from Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam. A resource person from the National Fisheries Research Institute of Far Seas Fisheries (NRIFSF) of Japan also participated in the Meeting. Other participants included the senior officers and staff of SEAFDEC Secretariat, TD and MFRDMD.

With the overall objective of enhancing regional cooperation in managing neritic tuna resources within the ASEAN Member States (AMSs),



the Meeting discussed the updates of the activities recommended during the last SWG Meeting in 2016, reviewed the results Stock and Risk Assessment of Longtail Tuna (LOT) and Kawakawa (KAW), discussed the genetic results for neritic tuna species in the region and management measures, and identified capacity building requirements to improve stock assessment at country level.

The Meeting was also held back to back with “Advance Training Course

on Risk Assessment of Longtail Tuna (LOT) and Kawakawa (KAW) in the Southeast Asian Waters.” The aim of the training was to transfer the methods on risk assessment to the researchers. The resource person of the training was *Dr. Tsutomu (Tom) Nishida* from NRIFSF. The three-day meeting and training had reached its goal whereby the participating Member Countries agreed to manage the existing data collection of LOT and KAW for further analysis in order to come up with one final stock and risk assessment at regional level. ✖

Second joint Cambodia-Viet Nam technical meeting on fisheries management convened

To follow-up on the Memorandum of Agreement (MoA) signed between Cambodia and Viet Nam in 2014, the SEAFDEC-Sweden Project organized the “Second Technical Meeting of the Joint Working Team for Fisheries Management between Cambodia and Viet Nam” on 17-18 October 2017 in Phnom Penh, Cambodia, to define the priority actions and joint work plans for the continued implementation of activities in the Gulf of Thailand sub-region. Following the first technical meeting in 2014, this subsequent bilateral/transboundary joint Cambodia-Viet Nam technical meeting was part of the regional approach to strengthen cooperation for improved fisheries management of the four Gulf of Thailand countries (Cambodia, Malaysia, Thailand and Viet Nam).

A total of 24 participants from Cambodia’s Fisheries Administration, Viet Nam’s D-Fish, and SEAFDEC-Sweden project attended the Meeting.

The Cambodian delegation was led by *Dr. Kao Sochivi*, Deputy Director General of Fisheries Administration; and the Viet Nam delegation by *Ms. Nguyen Thi Trang Nhung*, Deputy Director of Science, Technology and International Corporation Department, Directorate of Fisheries (D-Fish). Discussions at the meeting were cordial, constructive and forward looking, with reference to the three defined components: 1) Legal framework; 2) Management measures of transboundary species; and 3) Management of marine capture fisheries, combating IUU and destructive fishing, together with the cross-cutting priority issues to facilitate capacity building.

The dedicated working groups under the MoA 2014 have implemented key activities in seeking joint solutions between the two countries, such as mobilizing the mechanisms of information sharing, awareness raising and enforcement on fisheries management in Kampot-Kep



(Cambodia) and Kien Giang (Viet Nam); conducting comparative studies on Law and Regulations between Cambodia and Viet Nam; initiating a mechanism for joint management plan for important species, such as anchovy and blue swimming crab; and enhancing institutional capacity building through a series of trainings, such as EAFM, data collection, stock assessment, and so on. The Meeting also agreed to commence discussion on the action plan for 2018 and the ways forward for deepening the identified sub-regional cooperation on fisheries and habitat management between Cambodia and Viet Nam. ✖

Collaboration established between SEAFDEC, IUCN, and SEI on Regional Gender Study

The SEAFDEC-Sweden Project in collaboration with the International Union for Conservation of Nature (IUCN) through the Mangrove for the Future (MFF) and the Stock Environmental Institute (SEI) has been jointly undertaking a regional study on gender in fisheries. The study aims to explore gender patterns in coastal and marine resources management in order to improve understanding on the state of women and men in environmental decision-making and structural challenges preventing equitable opportunities for men and women in relation to the coastal, marine, and fisheries sectors in Southeast and South Asia. Two study sites were selected, the first of which is in Trat Province, Thailand; and another site in Kep Province, Cambodia. It is expected that the study, which is scheduled to complete by mid of 2018, would generate information and in-depth understanding on the prevailing gender dynamics and on how the resources are being

accessed, used, and shared among coastal communities throughout the region.

In Thailand, gender study was conducted in Trat Province on 10-21 October 2017 by SEAFDEC/TD in cooperation with the Sustainable Development Foundation (SDF). To follow-up on the study, TD also organized the “Meeting on Data Validation of Gender Analysis” on 7-9 December 2017 in Trat Province, Thailand. Meeting was participated in by 53 fishers and stakeholders from four villages in Mairood Sub-district. Local government staff also joined the Meeting, which discussed the result of the gender study previously conducted in October. From the Meeting, it is expected that the community will gain knowledge on gender equality concept, and how to utilize information obtained from the study to develop plan for the community.



Gender assessment in Kep, Cambodia

For another site in Cambodia, data collection was undertaken in Kep Province from 26 November to 1 December 2017. The surveys were conducted in collaboration with partner agencies, namely: SDF, CORIN-Asia Cambodia, and Fisheries Administration of Cambodia, using the “standardized gender survey tool” based on a structured questionnaire designed to gather data from key informants.

It is anticipated that after the completion of the research work, SEAFDEC and partner organizations will gain knowledge and awareness on the gender integrated planning process, obtain capacity and skills through the practical hands-on experience of conducting GA, and able to apply results of the GA to develop gender-responsive objectives and activities in the project planning process in the future. ✦



Conduct of gender assessment (left) and Meeting on Data Validation of Gender Analysis (right) at Mairood Sub-district in Trat Province, Thailand

Capacity building on fish handling techniques for SEAFDEC Member Countries organized

The “Regional Training Course on Fish Handling Techniques Applicable to Various Fishing Operations in Southeast Asia” was conducted from 11 to 15 December 2017 at SEAFDEC/TD, Samut Prakan, Thailand. Fourteen participants from SEAFDEC Member Countries joined the Training. The Training focused on demonstration and practical exercises and aimed to transfer appropriate hygienic environment and

user-friendly fish handling tools and simple techniques to maintain the quality of the catch. Moreover, exchange of ideas on practical skills and concepts related to reduction of fisheries post-harvest losses in the region was encouraged to promote food safety and minimize post-harvest losses in the catching, storing, and transportation processes of the fish catch. ✦



Participants observing the demonstration on simple techniques to maintain the quality of catch

Strengthening the capacity of national fishery stakeholders to collaborate and work on EAFM

In order to achieve the objective of “building the capacity for integration of habitat and fisheries management, and adaptation to climate change in the Gulf of Thailand, Andaman Sea, and Mekong River Basin sub-regions under the SEAFDEC-Sweden Project framework,” SEAFDEC/TD conducted a series of “On-site Trainings on the Essential-Ecosystem Approach for Fisheries Management (E-EAFM)” in different venues, namely: Ranong, Thailand on 4-11 November 2017 for the Andaman Sea sub-region; Bokeo, Lao PDR on 4-8 December 2017 for the Mekong River Basin; and Kampot, Cambodia on 18-22 December 2017 for the Gulf of Thailand sub-region.

The total of 60 participants comprised the central and local government fisheries officers and relevant stakeholders. The Training aimed to provide understanding



On-site Training in Bokeo, Lao PDR

on the concept and need for an EAFM and acquire skills and knowledge to develop, implement, and monitor an “EAFM plan” for better fisheries management. The E-EAFM course component equipped the trainees to: 1) manage fisheries more holistically; 2) reduce user group conflicts; 3) unlock financial resources; 4) cooperate with other stakeholders; and 5) resolve fisheries issues and challenges. The course was designed to



On-site Training in Kampot, Cambodia

be highly participatory to complement inputs from trainers where participants worked in pairs, groups, and individually on specifically designed exercises. The trainees were able to understand the principles of co-management and foster cross-sector coordination as well as practice the crucial skills on effective communication, facilitation, and conflict management. ❖

HRD on fisheries management plan for Myanmar organized



SEAFDEC/TD through the project on Human Resources Development on Sustainable Fisheries, organized the “Workshop on Development of the Fisheries Management Plan for Thahton Township, Mon State, Myanmar” from 20 to 25 November 2017 in Surat Thani Province, Thailand with five participants from Myanmar. The Workshop aimed to strengthen the understanding on the process to develop a management plan and came up with a draft of Fisheries Management Plan. Moreover, the participants visited mud crab culture facilities at fishing communities in Surat Thani Province and observed the activities to increase income. The experience and knowledge gained will be adapted in Thahton Township in Myanmar. ❖

Sub-regional Consultative Meeting on Effective Fisheries Management around the Southern Andaman Sea convened

On 21-22 November 2017, the SEAFDEC-Sweden Project organized the “Sub-regional Consultation Meeting on Effective Fisheries Management around the Southern Andaman Sea” in Bangkok, Thailand. Representatives from Indonesia, Malaysia, and Thailand, as well as staff from MFRDMD, TD, and Secretariat joined the event. The purpose of the Meeting was to provide opportunity for the three Countries and SEAFDEC to provide an update of the progress of the implementation of activities on development and management of fishery resources in the sub-region. The trilateral cooperation on fisheries and habitat management on trans-boundary fish species, management of fishing capacity, monitoring, control and surveillance (MCS), and combating IUU fishing was emphasized. Throughout the Meeting, the participants discussed the implementation of MCS network, improvement of vessel registration, and exchange mechanism. The Meeting enhanced the participants’ understanding




Participant discuss during the Meeting on the implementation of MCS network

and willingness on the collaborative actions towards effective management of fisheries, habitats, and fishing capacity in the Southern Andaman Sea sub-region. The Meeting also agreed on the directions on priority trans-boundary thematic areas and action points to take into consideration in planning to support the future action in 2018 to 2019. ❖

The Third Sub-regional Consultative Workshop of the Northern Andaman Sea/Myeik Archipelago convened


SEAFDEC-Sweden Project organized the “Third Sub-regional Consultative Workshop of the Northern Andaman Sea/Myeik Archipelago” on 16-17 November 2017 in Bangkok, Thailand participated by Myanmar and Thailand. The Myanmar delegation was led by *Mr. Khin Maung Maw*, Director-General of Department of Fisheries; while the Thailand delegation was led by *Dr. Chumnarn Pongsri*, Deputy Director-General of the Department of Fisheries.

Following-up on the MOU on Fishery Cooperation, which was recently signed by Thailand and Myanmar in 2017, the Workshop aimed to update on the progress of implementation of transboundary fisheries management with focus on capacity building on the integration of fisheries and habitat management, and transboundary fish species and management of fishing capacity by taking into consideration the human aspects of fisheries around

the Northern Andaman Sea. During the discussion, the participants shared their experiences and identified areas of cooperation on the joint activities to be implemented in the year 2018 including: 1) Transboundary aquatic resources management; 2) Monitoring and control of fishing effort and MCS network; and 3) Human dimension and social development to further enhance the cooperation between Myanmar and Thailand. 

SEAFDEC participates in the Meeting on Labor Inspection and Enforcement in Fishing and Seafood Sectors

The “Technical Meeting on Labour Inspection and Enforcement in Fishing and Seafood Sectors” was organized by the International Labour Organization (ILO) on 21-22 November 2017 in Bangkok, Thailand. *Ms. Suntree Pumpuang*, Project Officer of the SEAFDEC-Sweden Project attended the Meeting together with concerned labor officials from Indonesia, Myanmar, Philippines, Thailand, and Viet Nam as well as the Department of Labour Protection and Welfare (DLPW) of Thailand, representatives from the provinces along the Gulf of Thailand and the Andaman Sea, Command Center for Combating Illegal Fishing (CCCIF), Marine Division, Department of Fisheries, Thailand, donor from European Union, fishing industry, and NGOs (Stella Maris, Rak Thai Foundation, and Environmental Justice Foundation).

The Meeting aimed to enhance the capacity of government officers, including the labor inspectors, to effectively identify and take action against forced labor and other labor rights abuses in the fishing and seafood sectors. The Meeting discussed the aspect on combating unacceptable forms of work in Thai fishing and seafood sectors, labor inspection and enforcement in fishing and seafood sector, requirements of the Work in Fishing Convention 2007 (No. 188), SEA Fisheries Project Strengthened Coordination to Combat Labour Exploitation and Trafficking in Fisheries in Southeast Asia and Work in Fishing Convention 2007 (No. 188), and inspection of fishing vessels. In addition, the Meeting provided an exercise for participants to gather information on the gaps or issues on labor in fisheries and the solutions from their experiences to find out the appropriate way forward for future actions. 

SEAFDEC and MRC organize two regional consultations



SEAFDEC through the SEAFDEC-Sweden Project in collaboration with the Mekong River Commission (MRC) hosted two regional events, the “Regional Consultation on Formulation of Project Based Action Plan under the MRC Environment Management Division” and the “High Level Consultation on the Ecosystem Based Approach to Fisheries Management for Leaders, Executives and Decision Makers (EAFM LEAD) in Lower Mekong Basin” on 19-20 December 2017 in Bangkok, Thailand.

The first event was organized by the MRC-Environment Management Division (MRC-ED) and the SEAFDEC-Sweden Project on 19 December 2017 to discuss and identify priority needs and issues on inland capture fisheries management and development in the Lower Mekong Basin, as a follow-up after the endorsement of the Basin Wide Fisheries Strategy.

The second event on 20 December 2017 was organized by SEAFDEC and MRC. The *(Continued on Page 17)*



Participants of the Technical Meeting on Labour Inspection and Enforcement in Fishing and Seafood Sectors

Capacity building on skipjack otolith collection



SEAFDEC/TD in collaboration with SEAFDEC Secretariat and the National Research Institute of Far Seas Fisheries (NRIFSF), Fisheries Research Agency of Japan organized the “Training Workshop on the Standard Methodology for Skipjack Otolith Collection” on 5-6 November 2017 in Samut Pakan, Thailand. The Training Workshop was an activity under the joint program on tuna research in Sulu and Sulawesi Seas. Nine researchers from Indonesia and TD participated in the Training. The lecturers from NRIFSF taught the trainees the standard methodology and techniques to collect otolith from the skipjack samples, and also discussed on the framework for the study on skipjack growth analysis based on the examination of the intervals between the rings in the otolith samples. ❖

SEAFDEC and MRC organize two regional consultations

(Continued from Page 16)

objective of the EAFM LEAD consultation meeting was to provide information to leaders, executives, and decision-makers to enable them to understand and support EAFM in achieving sustainable fisheries through improved planning and implementation, as well as to encourage them to support their staff and agency and influence their leaders and leaders of other sectors to develop capacity in EAFM. In this connection, SEAFDEC Secretary-General, *Dr. Kom Silapajarn*, emphasized in his opening remarks the MOU which was signed in 2017 and intended to strengthen the cooperation between SEAFDEC and MRC on the sustainable use of fisheries and aquatic resources in the Lower Mekong Basin. ❖

Sub-regional MCS network in the Gulf of Thailand established

To strengthen the Gulf of Thailand (GoT) sub-regional cooperation, the SEAFDEC-Sweden Project organized the first “Sub-regional Consultation on the Development of Monitoring, Control, and Surveillance (MCS) in the Gulf of Thailand” from 31 October to 2 November 2017 in Chonburi Province, Thailand. The Meeting aimed to enhance the sub-regional cooperation and identify priorities to establish MCS network for improving trans-boundary fisheries management in the Gulf of Thailand sub-region.

This Consultation was initiated to address one of today’s challenges of overfishing, degraded coastal and marine environment, increasing demand for land and coastal areas, and negative impacts of climate change, which are of main concern that countries in the Gulf of Thailand needs immediate action. It was attended by more than 30 participants, representing policy makers from national agencies

responsible for fisheries of four Gulf of Thailand countries, namely: Cambodia, Malaysia, Thailand, and Viet Nam.

The MCS networking would focus on strengthening the enforcement of MCS practices and combating IUU fishing through a coordination of existing national mechanisms. The development of sub-regional MCS network as a major force to keep track of the implementation of fisheries management plans could positively reduce long-term damages on fish stocks and the marine ecosystems.

During the Consultation, the key steps and priorities to be undertaken were discussed and put in expected timeline. The participating countries’ representatives agreed to collaborate with responsible agencies to secure the mandate and approach for the establishment of the sub-regional MCS network to be linked with the existing national networks which would be put into motion starting in mid of 2018. ❖

Meeting for DNA Study on Stock Structure of Indo-Pacific Mackerel in the Gulf of Thailand organized

The SEAFDEC-Sweden Project organized the “Inception Meeting for DNA Study on Stock Structure of Indo-Pacific Mackerel (*Rastrelliger brachysoma*) in the Gulf of Thailand” on 13-14 December 2017 in Rayong Province, Thailand. The Meeting was attended by the national focal points who are representatives from countries around the Gulf of Thailand (GOT) namely: Cambodia, Malaysia, Thailand, and Viet Nam, together with members of the Regional Fisheries Policy Network (RFPN) and staff from SEAFDEC/TD and Secretariat.

The aim of the Meeting was to follow-up on the implementation of a series of activities of the GOT sub-regional initiative on management of transboundary fishery resources and to



RFPN members and SEAFDEC staff attending the Meeting

kick-off the activity on the process of DNA sampling of *R. brachysoma*. The national focal points finalized the plans on the DNA sampling activity as well as the standard operating procedure on collecting DNA samples and tissue sampling in their respective countries. Afterwards, it was agreed that the duration of the activity will be for approximately 10 months. ❖

FUTURE ACTIVITIES

Date	Venue	Title	Organizer(s)
2018			
15 Jan-25 Mar	Andaman Sea and Indian Ocean	Fisheries Resources Survey in Andaman Sea and Bay of Bengal Using the M.V. SEAFDEC	TD
16-18 January	Bitung, Indonesia	Consultation Meeting on the Framework for Study on Skipjack Growth Analysis based on the Examination of Intervals between the Daily Rings in the Otolith Samples Collected in Sulu-Sulawesi Seas and Practical Workshop for the Standard Methodology for Skipjack Otolith	TD
23-25 January	Binh Dinh, Viet Nam	On-site Training Course on Proper Fish Handling Techniques Applicable to Local Fishing Vessels	TD
25 January	Bangkok, Thailand	1 st Regional Meeting for the Project on Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia (JAIF Project)	Secretariat
4-11 February	Bokeo, Lao PDR	2 nd Fishing Gear Survey in Lao PDR	Secretariat
5-9 February	Rizal, Philippines	Training Course on Freshwater Prawn Hatchery and Grow-out Operations	AQD
6-9 February	Thailand	Workshop on Gender Analysis in Fishery Management in Coastal Communities in Cambodia, Myanmar and Thailand	TD
7-9 February	Rome, Italy	FIRMS-Global Record of Stocks and Fisheries (GRSF) Technical Working Group Meeting	FAO/FIRMS
19-23 February	Rizal, Philippines	Training Course on Catfish Hatchery and Grow-out Operations	AQD
20-23 February	Bangkok, Thailand	Regional Training on Port State Measures Implementation in Southeast Asia	TD
21-24 February	Kota Kinabalu, Malaysia	Practical Workshop on Tuna Stock Assessment for Yellowfin Tuna, Bigeye Tuna and Skipjack Tuna Resources in Sulu-Sulawesi Seas by CPUE Standardization, ASPIC, and Kobe Plot (Stock Status Trajectory Plot)	TD
12-16 March	Rizal, Philippines	Training Course on Tilapia Hatchery and Grow-out Operations	AQD
13-14 March	Bangkok, Thailand	Technical Experts Meeting on Management of Transboundary Species for the Norther Andaman Sea	Secretariat
13-14 March	Bangkok, Thailand	ASEAN Regional Forum on Sustainable Fisheries Management and Food Security in Southeast Asia	Thailand & ASEAN
19-23 March	Denarau, Fiji	27 th Session of the Asia and Pacific Commission on Agricultural Statistics	FAO/RAP
20-22 March	Brunei Darussalam	Terminal RTC for the Project on Enhancing Coastal Community Resilience for Sustainable Livelihood and Coastal Resources Management	MFRDMD & IDB
21-22 March	Bangkok, Thailand	8 th Meeting of the ASEAN Shrimp Alliance (ASA)	Thailand & ASEAN
26-30 March	Siem Reap, Cambodia	50 th Meeting of the SEAFDEC Council	SEAFDEC
26 Mar-4 Apr	Gulf of Thailand	Fisheries Resources Survey in the Gulf of Thailand Using the M.V. SEAFDEC	TD
4-5 April	Louangphrabang, Lao PDR	14 th Meeting of the ASEAN Working Group on the Convention on International Trade in Endangered Species of Wild Fauna and Flora	Lao PDR & ASEAN
4-5 April	Bangkok, Thailand	Technical Experts Meeting on Management of Transboundary Species for the Southern Andaman Sea	Secretariat
5-20 April	Iloilo, Philippines	Training Course on Sandfish <i>Holothuria scabra</i> Seed Production, Nursery and Management	AQD
9-13 April	Nadi, Fiji	34 th FAO Regional Conference for Asia and the Pacific	FAO/RAP
16-20 April	Rizal, Philippines	Training Course on Carp Hatchery and Grow-out Operations	AQD
18-19 April	Singapore	End-of-Project Meeting on Cold Chain Management of Seafood	MFRD
24-25 April	Da Nang, Vietnam	Bilateral Technical Meeting on Effective Fisheries Management between Thailand and Viet Nam	Secretariat
24-26 April	Bangkok, Thailand	SEAFDEC Inter-Departmental Information Workshop	Secretariat
14-18 May	Rizal, Philippines	Training Course on Freshwater Prawn Hatchery and Grow-out Operations	AQD
18-22 June	Rizal, Philippines	Training Course on Tilapia Hatchery and Grow-out Operations	AQD
19 June-25 July	Iloilo, Philippines	Training Course on Marine Fish Hatchery	AQD
13-17 August	Rizal, Philippines	Training Course on Tilapia Hatchery and Grow-out Operations	AQD

Stakeholders Meeting on Electronic System of ASEAN Catch Documentation Scheme for Marine Capture Fisheries of Viet Nam

SEAFDEC organized the Stakeholders Meeting to introduce the electronic system of the ASEAN Catch Documentation Scheme (eACDS) in Nha Trang City, Viet Nam on 28 October 2017 with support from the Japanese Trust Fund (JTF). Through the efforts of the Deputy Director of Department of Science, Technology and International Cooperation of Viet Nam *Ms. Nguyen Thi Trang Nhung*, representatives from the public and private sectors involved in the fisheries industries and in trading of fish and fishery products representing the 23 provinces of Viet Nam attended the Meeting. The SEAFDEC Deputy Secretary-General *Dr. Kaoru Ishii* together with SEAFDEC Policy and Program Coordinator and Project Leader of the eACDS *Dr. Somboon Siriraksophon*, and the Advisor to the Fish Marketing Organization (FMO) of Thailand *Mr. Pramuan Rugjai*, also attended the Meeting.

The eACDS was developed by SEAFDEC in collaboration with the FMO of Thailand to serve as an effective management tool for enhancing the traceability of marine capture fisheries and preventing the entry of fish and fishery products from IUU fishing activities into the supply chain. The system requires several good practices of Monitoring, Control, Surveillance (MCS) and good governance, as well as several Key Data Elements (KDEs) in the database modules to enhance the efficiency of eACDS as a user friendly tool.

After the Meeting, the representatives from the private sector showed interest in the eACDS implying that it is a possible approach to enhance the traceability system for marine fish and fishery products from Viet Nam, while ensuring that such products do not come from IUU fishing activities.



Participants in the Stakeholders Meeting to introduce of the electronic system of the ASEAN Catch Documentation Scheme (eACDS) in Nha Trang City, Viet Nam

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)

2 Perahu Road, Off Lim Chu Kang Road,
Singapore 718915
Tel: +65 6790 7973 Fax: +65 6861 3196
E-mail: ava_mfrd@ava.go.sg
<http://www.seafdec.org>

AQUACULTURE DEPARTMENT (AQD)

Main Office: Tigbauan, 5021 Iloilo, Philippines
Tel: +63 33 330 7000, 511 9171
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: aqdchief@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:

Kom Silapajarn
Secretary-General and TD Chief
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Deputy Secretary-General and TD Deputy Chief
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Dan D. Baliao, *AQD Chief*
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SEAFDEC staff joins TUMSAT cruise survey in the Antarctic Ocean

SEAFDEC and the Tokyo University of Marine Science and Technology (TUMSAT) have pursued close and active cooperative relationship for years based on the Arrangement for Academic and Educational Cooperation. This includes the conduct of academic seminar when TUMSAT's research vessel – the Umitaka-maru – visited SEAFDEC Training Department, and provision of scientific advice from TUMSAT to SEAFDEC.

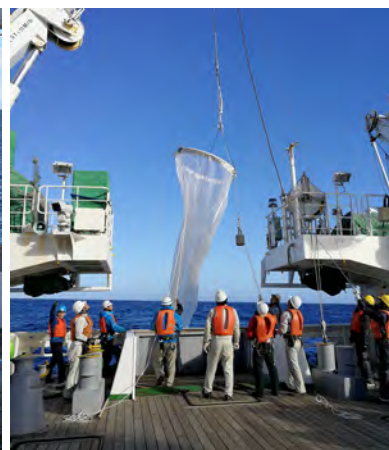
As part of such cooperative relationship, a Fishery Oceanographer of SEAFDEC/TD, *Ms. Pontipa Luadnakrob*, participated in the 53rd cruise survey of the Umitaka-maru that includes KARE21 cruise for the Antarctic Ocean from 28 December 2017 to 23 January 2018. During the cruise, *Ms. Pontipa* made observations of, and support the Umitaka-maru's research activities including conductivity, temperature and depth profiler (CTD),

as well as in the conduct of plankton and microplastic samplings.

It is anticipated that her participation in this cruise survey would enhance the experience and capacity of SEAFDEC and strengthen closer cooperative relationship between SEAFDEC and TUMSAT. This would also secure collaboration between the two organizations in conducting cruise survey activities in the future. ☒



Researchers arrived at Antarctica



ORI net for collecting zooplankton and fish larvae



SEAFDEC Staff Ms. Pontipa Luadnakrob joined the survey in Antarctica

Second baseline survey on eels conducted

SEAFDEC conducted the second baseline survey on eels under the ongoing JAIF Project “Enhancing Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia” in Indonesia on 9-13 October 2017 and in Myanmar on 23-28 October 2017. The aim of the second survey was to understand the current situation of the Anguillid eel resources, fisheries, farming, and catch in the said

countries. The survey team consisted of staff from SEAFDEC Secretariat and IFRDMD as well as experts from Japan.

In Indonesia, the survey team went to Cilacap Regency and Yogyakarta (Central Java) to interview the local fisheries officers, fishers and farmers, and to collect general information and data such as production, fishing gear as well as fishing activities. Based on previous information, Cilacap Regency is a good site for collecting data on yellow eel fishing.

In Myanmar, Myeik and Mandalay were the selected survey areas based on the information from the officers of DOF and consolidators in Yangon. Myeik, a city in Tanintharyi Region (southern part of Myanmar), was identified as the largest consolidator. Thaninthayri River in Myeik is an important fishing ground where the main catch is shrimp, while



Interview with government officers and eel consolidator in Myeik, Myanmar



Interview with local fisheries officers and farmers in Cilacap, Indonesia

eels are caught incidentally. The survey team interviewed the local officers and consolidator to investigate the current situation of Anguillid eel resources, fisheries, distribution, and farming. In Mandalay Province in the northern part of Myanmar, eel farm owned by a private company was located. This farm was the only eel farm in Mandalay Province and in Myanmar. The product from this farm is exported to China. ☒