VOLUME 40 NUMBER 3 July - September 2017

BANGKOK, THAILAND, ISSN 0857 -

INSIDE THIS ISSUE

•	Gathering Catch Statistics and Related	10
	Data on Inland Fisheries	

- · Setting in motion the JAIF project on 12 tropical anguillid eels
- Second TWG Planning Workshop of 14 **USAID Oceans**
- Project Evaluation and Progress Meeting 15 for Cold Chain Management in Seafood
- Regional Training Course on Specimen Preservation and its Application in HAB Monitoring and Studies
- **Experts Workshop for Securing** 17 Sustainable Small-Scale Fisheries on Human Rights-Based Approach and Gender Equitability
- Training/Workshop on risk assessment and management of neritic tunas in Southeast Asia

EDITORIAL

During the third quarter of 2017, the new project "Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia" was set into motion through a Project Planning Meeting and series of baseline surveys in Cambodia, Myanmar, and Philippines. Supported by the Japan-ASEAN Integrated Fund (JAIF), the Project is implemented by SEAFDEC Secretariat in collaboration with IFRDMD and AQD. IFRDMD also continued to promote the improvement of collecting and compiling data on inland fisheries as these had been reported to be inadequate, incomplete and not timely resulting in the minimal attention given to the sustainable development of inland fisheries.

SEAFDEC continued to arrange activities and get involved with collaborating organizations to deal with prevailing fisheries concerns in

(Continued on Page 2)

Regional Technical Consultation on fisheries statistics and information in Southeast Asia organized



Participants of the RTC on Fisheries Statistics and Information in Southeast Asia

SEAFDEC organized the "Regional representatives representing the ASEAN Technical Consultation on Fisheries Member States (AMSs), representative Statistics and Information in Southeast Asia" on 15 - 18 August 2017 in Bangkok, Thailand with the aim of improving the reporting of fishery statistics and the regional framework that had been used Departments working on fisheries data, for the compilation of regional fishery statistics. With funding support from the Japanese Trust Fund, the Consultation was attended by the members of the ASEAN Network on Fishery Statistics and/or their

from the Food and Agriculture Organization of the United Nations (FAO), Senior Officials of the SEAFDEC Secretariat. and staff of SEAFDEC Secretariat and and information collection and utilization.

During the deliberations, the requirements for improving the collection

(Continued on Page 19)

Consultation for improving utilization of RFVR database

Implementation and Utilization of the Regional Fishing Vessel Record (RFVR) for 24 meters in length and over as a Management Tool toward Combating IUU Fishing in ASEAN" from 12 to 14 September 2017 in Bangkok, Thailand. Thirty-five (35) participants comprising the RFVR National Focal Points and policy makers from Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, and Viet Nam, SEAFDEC officers and staff, and the members of the Regional Fisheries Policy Network took part in the Consultation. The Consultation

SEAFDEC/TD organized the "Regional came up with: 1) situation of AMS in Technical Consultation on Evaluation of reducing IUU fishing; 2) utilization, issues and problems of the RFVR-24m; and 3) strategies and way forward on improvement, promotion and utilization of the Database for RFVR 24 meters in length and over to prevent, deter and eliminate IUU fishing in the region.



EDITORIAL

(Continued from Page 1)

the region, and organized technical consultation meetings on fisheries statistics and information, improving utilization of the RFVR Database, and shark stock assessment. The progress of the MFRD project "Cold Chain Management for Seafood" was evaluated in a meeting attended by representatives from the ASEAN Member States, while several workshops were organized through the USAID-SEAFDEC Oceans and Fisheries Partnership" Project. SEAFDEC also joined the academe and government institutions for the planning of the "Antarctic Research" and "Micro Plastic" projects.

Numerous activities were conducted that depict the incessant extension of SEAFDEC outputs to the stakeholders. Students, teachers, and fish farmers were among the beneficiaries of internship programs, visitations, and trainings at the SEAFDEC Departments. Fish farmers in Iloilo, Philippines who were affected by typhoon Haiyan were trained by AQD scientists on the culture of seaweeds and abalone. Moreover, SEAFDEC reached out to the public through press events and exhibitions. During the 10-day exhibition at Thailand's annual national fair the "Pramong Nomklao," TD let the audience operate and control the side scan sonar and remotely operated vehicle (ROV). When AQD celebrated its 44th Anniversary in July 2017 with the theme "Continuing discovery and innovations for globally competitive and sustainable aquaculture," among the featured activities were the Farmers Forum, DKV Memorial Lecture by former AQD Chief Dr. Rolando Platon, and launching of new publications.



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You can also send your comment on our Newsletter to secretariat@seafdec.org

SEAFDEC at the National Fish Releasing Day in Lao PDR and discusses on SEAFDEC-Sweden Project



Prime Minister, H.E. Mr. Thongloun Sisoulith, during the opening ceremony of the Fish Releasing Day in Lao PDR

SEAFDEC representatives attended and Fisheries (DLF) and concurrent the National Fish Releasing Ceremony, hosted by the Ministry of Agriculture Mr. Somphanh Chanphengxay, and the and Forestry of Lao PDR, in Vientiane on 13 July 2017. The Ceremony was officiated by the Lao PDR Prime Minister, H.E. Mr. Thongloun Sisoulith. With Project activities to be undertaken in Lao the attendance of government officials, representatives from the private sector, and organizations and school children, fish fingerlings and birds were released to natural environment with a view of signifying the importance of the works on livestock and the conservation of wildlife and aquatic animals, and enhancing and sustaining food sources of the country.

During the same day, the SEAFDEC-Sweden Project Team, led by the Secretary-General, Dr. Kom Silapajarn, General of the Department of Livestock area.

SEAFDEC Council Director for Lao PDR Head of Fisheries Division Mr. Sommano Phounsavath. The discussion mainly touched upon the SEAFDEC-Sweden PDR focusing on promotion of fisheries resources management, particularly on the bilateral dialogue between Lao PDR and Cambodia and capacity building on Ecosystem Approach to Fisheries Management (EAFM) for fisheries officers of Lao PDR. SEAFDEC also provided an update on the establishment of MOU for collaboration between SEAFDEC and MRC, and sought support from Lao PDR to assure the effectiveness and coordination toward improved fishery resources management in Lao PDR and paid the courtesy call on the Director- the Mekong River Basin sub-regional

SEAFDEC participates in the 16th Session of the FAO Sub-Committee on Fish Trade

General Dr. Kaoru Ishii, accompanied of Korea on 4-8 September 2017. The by the Policy and Program Coordinator Session deliberated the issues relevant Dr. Somboon Siriraksophon, attended the to fish trade, such as the Voluntary Sixteenth Session of the Sub-Committee

SEAFDEC Deputy Secretary- on Fish Trade held in Busan, Republic

(Continued on Page 19)



SEAFDEC at the 29th Meeting of CITES Animal Committee in Geneva

SEAFDEC, represented by the Deputy Secretary-General Dr. Kaoru Ishii and the Policy and Program Coordinator Dr. Somboon Siriraksophon, took part during the Twenty-ninth Meeting of the Animal Committee of CITES in Geneva, Switzerland on 18-22 July 2017. At the plenary session of the Meeting, Dr. Ishii announced the launching of the new SEAFDEC project funded by the Japan-ASEAN Integration Fund (JAIF) "Enhancing Sustainable Utilization and Management Scheme of Tropical

Asia." The project which is for two-year at the next meeting of CITES CoP18 period from August 2017 until 2019, aims to enhance the region's capacity on development and management of eel fisheries and aquaculture.

Due to the increasing demand for eels, over-exploitation of the European and American Anguillid eels has becoming a major concern, and the issue was raised for discussion during the CITES CoP17 in 2016 in South Africa. This

Anguillid Eel Resources in Southeast issue is supposed to be discussed again to be held in 2019, and could have an impact on the sustainable utilization of tropical anguillid eels in the Southeast Asian region. Besides the issue on anguillid eels, the Animal Committee also discussed the data collection and NDFs scheme of sharks and rays as well as other aquatic species particularly the freshwater stingrays, Banggai cardinal fish, and precious corals. ×

AQD's 44th Anniversary Highlights

The partnership between SEAFDEC/ AQD and the Philippine Bureau of Fisheries and Aquatic Resources (BFAR) was highlighted during the 44th Anniversary Program of AQD held last 7 July 2017 at its Multi-Purpose Hall in Tigbauan, Iloilo, Philippines. In the keynote message of BFAR National Director Eduardo Gongona delivered by BFAR 6 Regional Director Remia Aparri, he acknowledged the work done by AQD for the past 44 years in terms of research, technology generation, and training which benefitted their common stakeholders. Acting AQD Chief Dr. Chihaya Nakayasu echoed Director Gongona in his message. "AQD has always been a proud partner of BFAR in advancing aquaculture development in the Philippines. I believe much more can be done to develop aquaculture, especially in empowering rural fisherfolk who consistently rank as the poorest of the poor in the Philippines," he said. Dr. Nakayasu also said that AQD continuously caters to institutions and individuals who wish to learn AOD's science-based technologies and in the span of 44 years, AQD already produced more than 11,000 training alumni. In the past 30 years alone, over 429 trainees were BFAR personnel and extension workers which illustrate the significance of AQD's partnership with the Bureau. Other partnerships made by the Department were also mentioned by Dr. Nakayasu, including the mud crab and soft-shell crab technologies which

were recently adopted by the private and public sectors.

Another highlight was the return of former AQD Chief, Dr. Rolando Platon to AQD to share his experience in tilapia hatchery operation using a recirculation system, as the Speaker for the 25th Dean Domiciano K. Villaluz (DKV) Memorial Lecture. Dr. Platon presented the techniques he developed in producing sex-reversed tilapia fingerlings in tanks using a recirculation system that showed a profit margin of 55% at the end of one year production but still needs intervention to further develop. Dr. *Platon* pointed out the need for assistance in resource assessment, regulations, and technology transfer mechanisms (e.g. information dissemination, seminars, demo farms and extension services).

One more highlight was the launching of new publications, including two Regional Technical Consultation Proceedings, an extension manual and seven brochures, which were then distributed to stakeholder representatives from the academe, NGOs, government, and the fisheries industry. The publications include "Addressing AHPND and Other Transboundary Diseases for Improved Aquatic Animal Health in Southeast Asia," and "Philippines: in the forefront of the mud crab industry development," and extension manual "Diseases of Juvenile and Adult Mud Crab Scylla spp. in the Philippines." Brochures on





Dr. Aparri delivers the keynote address of BFAR Director Gongona (left) and Dr. Nakayasu gives his State-of-AQD address (right)

the culture of abalone, catfish, tilapia, seaweeds, mangrove crab, and larval food were presented along with a brochure on AQD's Community-Based Resource Enhancement project in Molocaboc Island. During the event, publications which can now be freely downloaded from the SEAFDEC/AQD Institutional Repository (repository. seafdec.org.ph) were also presented. These include, "Giant Clam Hatchery, Ocean Nursery and Stock Enhancement," "Pag-aalaga ng Tilapia," "Pagpapaanak ng Tilapia," and "Recent Developments in the Genetic Improvement of the Giant Freshwater Prawn."

The anniversary program was also graced by SEAFDEC Deputy Secretary-General Dr. Kaoru Ishii who expressed his wish for AQD to continue addressing the issue of food security in the region. The program also honored the retirees and staff who served AQD for many years as well as the research staff who were given awards in various external 黑

DEPARTMENTAL ACTIVITIES

Visit of SEAFDEC executives to Japan

2017. They included the Secretary-General Dr. Kom Silapajarn, Deputy Secretary-General Dr. Kaoru Ishii, Policy and Program Coordinator Dr. Somboon Siriraksophon, Assistant Japanese Trust Fund Project Manager Mr. Isao Koya, Deputy Chief of SEAFDEC/AQD Dr. Chihaya Nakayasu, AQD Research Division Head Dr. Evelyn Grace de Jesus Avson. Chief of SEAFDEC/MFRDMD Mr. Raja Bidin Raja Hassan, and Chief of SEAFDEC/IFRDMD Dr. Arif Wibowo.

On 22-24 September, the team participated in the Japan Society for Fisheries Science (JSFS) 85th Anniversary Commemorative International Symposium "Fisheries Science for Future Generations" organized at the Tokyo University of Marine Science and

Eight executive members of SEAFDEC Technology (TUMSAT) and presented visited Japan during 21-26 September its research works and activities that have been undertaken so far. At the same time, the team led by Dr. Kom Silapajarn paid a visit to the Fisheries Agency and made a courtesy call on the Director-General Mr. Shigeto Hase. He updated Mr. Hase on the Celebration of the 50th Anniversary of SEAFDEC in scheduled on 15 November 2017 in Bangkok, Thailand. The SEAFDEC executives also visited the Ministry of Foreign Affairs (MOFA), the Fishery Research and Education Agency (FREA), TUMSAT, and the Japan International Cooperation Agency (JICA). Further at the Fisheries Agency Press Club, Dr. Kom had a chance to present the achievements from the researches and activities of SEAFDEC. The Mission's activities were capped with a Reception to celebrate the 50th Anniversary of SEAFDEC.



SEAFDEC at the JSFS 85th Anniversary-Commemorative International Symposium

Students complete high school internship program at Binangonan Station

School Diliman Campus (PSHSD) students participated in the first ever AQD Binangonan Freshwater Station (BFS) internship program for junior and senior high school students from 26 June 26 to 7 July 2017. The two-week internship program gave an opportunity for five junior and two senior high school students to experience actual aquaculture practices with the different laboratories of BFS, i.e.

A group of Philippine Science High Ecology, Genetics, Feed Development, and Natural Food Laboratory.

> Currently, BFS' research and technology thrusts are in the culture of freshwater tilapia, giant freshwater prawn, bighead carp, catfish and silver perch. The station welcomes applications for on-the-job training from students as well as internship for individuals.



Confab for fish farmers a success



Mr. Demy Catedral, AQD Senior Technical Assistant, demonstrates to participants the proper way of preparing samples for disease diagnosis

More than 100 fish farmers and other stakeholders from the academe and local government units participated in the Farmers Forum held at the AQD's Multi-Purpose Hall in Tigbauan, Iloilo, Philippines on 6 July 2017. The topics discussed were fishpond culture and management, growing single oysters, nursery of mangrove and blue swimming crabs, and biosecurity in hatcheries and in grow-out culture. The lectures were delivered by Everglory Agri-Aqua Farm Technical Manager and former AQD Researcher Mr. Eliseo Coniza, AQD experts Ms. Jocelyn Ladja, Dr. Fe Dolores Estepa, and Dr. Leobert dela Peña, respectively. Aside from the lectures, a demonstration on the collection, preparation, and transport of samples for disease diagnosis was also conducted by Senior Technical Assistant Mr. Demy Catedral.

The participants also had a chance to seek advice from AQD experts during the open forum and exchanged ideas with coparticipants. The event capped off with a tour of AQD facilities in Tigbauan. The Farmers Forum was organized as part of AQD's 44th Anniversary Celebration in pursuit of its mandate to disseminate and promote the exchange of information on aquaculture. X

SEAFDEC, TUMSAT and Chulalongkorn University cooperate on "Antarctic Research" and "Micro Plastic" Projects



SEAFDEC represented by the Deputy Secretary-General Dr. Kaoru Ishii and Fishery Oceanographer of the SEAFDEC/ TD Ms. Pontipa Luadnakrob visited the Department of Marine Science of the Faculty of Science, Chulalongkorn University on 17 August 2017.

During the visit, Dr. Ishii met Assoc. Prof. Dr. Voranop Viyakarn, Head of Reef Biology Research Group, and Department of Marine Science, and Assoc. Prof. Dr. Suchana Chavanich, Deputy Managing Director of Chula Unisearch. Dr. Ishii and Dr. Voranop discussed about the future cooperation on the "Antarctic Research" program, which SEAFDEC is joining with TUMSAT, and on the "Micro Plastic" project that SEAFDEC has agreed to work with the Science and Technology Research Partnership for Sustainable Development Programs (SATREPS); Department of Marine Science of Chulalongkorn University; Department of Marine and Coastal Resources of Ministry of Natural Resources and Environment of Thailand; and Japanese universities to conduct surveys on micro plastic debris in the ASEAN waters. Debris are dangerous objects, which cause harmful impacts to the environment and fishery resources.

The discussion was fruitful and came up with strong relationship and mutual understanding between both institutions. At the end of the visit, SEAFDEC accepted the invitation to join the Polar Science Consortium Thailand (PSCT)which was established by Dr. Voranop. He is also the present Head of the Research Group in Thailand for Asian Forum for Polar Sciences (AFOPS).

SEAFDEC conducts press event at the Training Department

On 14 September 2017, SEAFDEC led M.V. PLALUNG as prototype trawler that by the Secretary-General and Chief of the complies with the ILO Work in Fishing Training Department, Dr. Kom Silapajarn, brought 33 Thai media members to the Training Department in Samut Prakan, Thailand to learn more about SEAFDEC activities, including the on-station experimental fishway design to mitigate the impacts from cross-river obstacles, activities toward sustainable management people to have better understanding of the of anguillid eels, and modification of the oceanographic condition.

Convention C188. The media members also joined the M.V. SEAFDEC cruise to observe fishing activities at sea, training on scientific observer program conducted by the DOF Thailand onboard the M.V. SEAFDEC 2, as well as the operation of several scientific equipment that enable X



TD organizes an exhibition at Thailand's National Fair

SEAFDEC/TD ioined the Department of Fisheries of Thailand in staging a fisheries exhibition at the annual national fair "Pramong Nomklao" organized at the Future Park Department Store in Pathumthani Province, north of Bangkok which started on 30 June 2017. During the 10-day exhibition, TD presented its activities relevant to the theme of "Exploration of Marine Resources and Environment." A sample of deep sea fishery resources was presented including some exploration equipment such as side scan sonar and a remotely operated vehicle (ROV) where the audience was allowed to operate and control the ROV. Various technical publications, brochures, and fishery-related souvenirs were distributed to the audience to promote the visibility of SEAFDEC, while other souvenirs were put up for sale, the income of which would be donated to the famous Chulabhorn Research Institute for its cancer research.



New AQD auditorium inaugurated



The new Multi-Purpose Hall of AQD was inaugurated during the opening program of its 44th Anniversary Celebration on 3 July 2017. Former AQD Chief Dr. Felix Ayson, under whose term the building broke ground, and AQD Acting Chief Dr. Chihaya Nakayasu led the cutting of the ribbon to finally open the P37-million facility. Located near the AQD FishWorld, the new auditorium has state-of-the-art audio-visual facilities and can comfortably seat 500 in a banquet setup or 700 in a theater arrangement. The auditorium could also be divided into 3 smaller function rooms to host simultaneous events.



Typhoon Haiyan-affected fish farmers learn seaweed and abalone culture

As part of their community rehabilitation project, the Cooperative for Assistance & Relief Everywhere (CARE) together with Taytay Sa Kauswagan, Incorporated (TSKI) invited SEAFDEC/ AQD to provide knowledge and skills on seaweed and abalone culture to fish farmers who were affected by Typhoon Haiyan in 2013 in San Dionisio, Iloilo on 26-28 July 2017.



San Dionisio fish farmers participating in the seaweed culture practical exercises

Calatagan folks learn mud crab farming and mangrove protection

their awareness on the importance of mangroves, the Junior Chamber International – Makati Princess Urduja Incorporated (JCI-MPUI) invited AQD to conduct a training course on mud crab culture last 29 July 2017 in Calatagan, Batangas. A mangrove sanctuary called JCI-MPUI which has been promoting Pulo in an islet in Calatagan which has been maintained by the local PO, had inspired the JCI-MPUI to create a marine ecosystem project that will benefit the community and its members.



As means of creating livelihood for AQD Scientists Dr. Emilia Quinito the local people's organization (PO) and Dr. Fe Estepa gave lectures on through mud crab farming and increasing mud crab biology, nursery, and growout techniques for ponds, cages, and pens. Technical assistance in setting-up cages and pens for mud crab culture in mangrove areas would also be provided.

> The activity was spearheaded by the active citizenship by empowering young individuals, especially women in the community, for business development, responsible leadership and heroic values, and international goodwill for 37 years.

> > The activity was also in partnership with the Bayan ng Calatagan, Enrique Zobel Foundation, Climate Change Commission-Philippines, and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA). \gg

SEAFDEC participates in training on regional ocean governance framework

SEAFDEC officers Ms. Thanyalak Suasi from TD and Ms. Suwanee Sayan from the SEAFDEC Secretariat represented SEAFDEC during the "Training Programme on Regional Ocean Governance Framework, implementation of the United Nations Convention on the Law of the Sea (UNCLOS) and its related instruments in the Southeast Asian Seas and the Indian Ocean," organized in Hua Hin, Prachuap Khiri Khan from 2 to 27 July 2017 by the International Ocean Institute (IOI-Thailand) in collaboration with the Department of Marine and Coastal Resources (DMCR), Thailand. The Training Programme was aimed at building upon a holistic and integrated maritime policy following the principles enshrined in the UNCLOS, the training focused on the linkages between natural, social and economic science; development of sustainable ocean governance and



the interface of research-management; and support of technology to enable the effective achievement of ocean governance management and sustainable development.

SEAFDEC Secretary-General Dr. Kom Silapajarn served as one of the speakers who shared the information on the scope of SEAFDEC activities toward sustainable development of fisheries in Southeast Asia including the Fishery Oceanographic and

Resources Survey, Capacity Building for ASEAN Member States (AMSs), Regional Initiatives in Response to Climate Change and Food Security, Combating IUU-Fishing, Optimizing Energy, Improvements on Safety Onboard Fishing Vessels, Trawl Fisheries By-catch Management, Good Aquaculture Practices, and Traceability System for ASEAN Aquaculture Products.

(Continued on Page 7)

IFRDMD conducts in-house training on fisheries and modeling



of researchers in understanding and analyzing the variations exhibited in the catch from inland fisheries, SEAFDEC/ IFRDMD organized an in-house training on fisheries and modeling on 26-28 September 2017 in Palembang, Indonesia. The training which focused on the Chief of IFRDMD Dr. Satoshi lecure given by Dr. Ing. Widodo Setiyo Pranowo from the Centre of Marine Research of Indonesia, was attended by 16 participants comprising the researchers from IFRDMD and the Centre of Marine Research.

The training also included practical session on the aspects related to ocean

In order to enhance the capacity climate interaction and its inland fisheries impact; fish dynamics population and its recruitment; and spatial and temporal analysis for meteorology and water bodies.

> In his Opening Remarks, Deputy Honda encouraged the participants to conscientiously follow the lecture and practical sessions to be able to continue to the intermediate and advance levels. During the practical sessions, the trainees performed computation and analysis of the characteristics of the lake water and meteorological mass of Toba, Sipin Lake. and Lake Kerinci.

Students, teachers, and **National Farmers Council staff** visit TD

TD welcomed 20 students and three teachers from Walailuk University who wanted to enhance their knowledge on coastal and fisheries resources management technology. Also, ninetyfive college students from Phrasamutchedi Industrial and Community Education College visited TD to learn about vessel engine maintenance. The visitors intended to gain more experience in such aspect outside of their study room. In addition, TD hosted 12 staff of the National Farmers Council (NFC) at its premises in Samut Prakan on 9 September 2017. The visit aimed to observe the TD facilities, such as the conference room, meeting room, computer room, dormitory, and so on. During the discussion, concerned TD officers introduced the activities on coastal and fisheries resources management conducted in the region and also presented the activities of TD related to oceanographic surveys in the region. The visitors also had a chance to visit the TD facilities such as the Engineering Workshop, Fishing Workshop, and the M.V. SEAFDEC. \gg

SEAFDEC participates in training on regional ocean governance framework

(Continued from Page 6)

During the discussion, Dr. Kom elaborated on the measures developed among the AMSs with technical support from SEAFDEC in combating IUU fishing in the region and the efforts of SEAFDEC in addressing fishery issues that are of international concern. He also explained the collaborative effort between the ASEAN and SEAFDEC in combating IUU fishing which was demonstrated through the adoption by the AMSs of the "ASEAN-SEAFDEC Joint Declaration on Regional Cooperation for Combating Illegal, Unreported and Unregulated (IUU) Fishing and Enhancing the Competitiveness of ASEAN Fish and Fishery Products."

Training Course on Fishing Gear Drawing



Participatants in the training course on Fishing Gear Drawing

Fishing Gear Drawing" from 28 August to 1 Prakan with fourteen (14) participants from the Department of Fisheries of Thailand understanding of the standards of fishing work.

TD organized the "Training Course on gear in Thailand and training the participants on fishing gear drawing using the Corel September 2017 at the TD premises in Samut Draw software. At the end of the training, the participants became capable of using the Corel Draw Software to draw fishing and TD. This was aimed at building up an gear and applying what they learned in their

IFRDMD Chief attends the 147th American Fisheries Society **Annual Meeting**



Fulfilling the invitation of the American Fisheries Society, the Chief of IFRDMD Dr. Arif Wibowo attended its 147th Annual Meeting in Tampa, Florida, U.S.A. on 20-24 August 2017.

convened limited meetings with potential partners and donor agencies, e.g. ACIAR and USAID for the fish passage project in Southeast Asia. It should be noted that in addition to the current project supported by ACIAR on development of experimental fishway model, SEAFDEC also discussed with the US Department of Interior (DOI) to support initiative of the US-DOI Lower Mekong Fish Passage Initiative in Viet Nam and Cambodia.

On the sidelines of the event, Dr. Arif convened limited meetings with potential partners and donor agencies, e.g. ACIAR and USAID for the fish passage project in Southeast Asia. This meeting served as a platform for the promotion of SEAFDEC/IFRDMD's institutional and research agenda. The USAID Fish Passage Project which will be implemented in collaboration with ACIAR would be managed by SEAFDEC/IFRDMD with research pilot sites in Cambodia and Viet Nam.

Dr. Arif also made a visit to the On the sidelines of the event, Dr. Arif University of Illinois in Chicago, U.S.A. on 28-29 August 2017, more particularly, the Field Museum which maintains fish collection and display rooms for the dissemination of results. During the visit, Dr. Arif discussed with the curator of the Field Museum for potential of inter-agency collaboration, as well as other matters related to fish collection, e.g. fish preservation, cataloguing, and public data base.

AQD Scientist is Advisory Panel Member for FAO Regional Meeting on Agricultural Biotechnologies

AQD Scientist Dr. Maria Rowena Romana-Eguia was chosen to become one of the members of the Advisory Panel of the "Regional Meeting on Agricultural Biotechnologies in Sustainable Food Systems and Nutrition in Asia-Pacific" convened by the Food and Agriculture Organization of the United Nations (FAO) on 11-13 September 2017 in Kuala Lumpur, Malaysia.

Aimed to address the needs and concerns regarding biotechnologies at the regional level, a series of Meetings on Agricultural Biotechnologies would be convened by FAO in 2017 and 2018, and the September 2017 Meeting was the first of four regional meetings, where Dr. MRR Eguia presented a paper on "DNA Marker Applications in the Management of Farmed Aquatic Genetic Resources



Dr. MRR Eguia presenting a paper during the session on "Conservation, Characterization and Sustainable Use of Genetic Resources for Food and Agriculture"

in the Philippines." She also chaired the session on "Social and Economic Impact of Agricultural Biotechnologies for Communities." The succeeding three regional meetings will be held in Sub-Saharan Africa, Latin America and North Africa, respectively. ×

Philippine DA Secretary expresses enthusiasm to tap AQD expertise

Philippine Department of Agriculture Secretary Emmanuel "Manny" Piñol voiced the Philippine Government support to AQD and advised officials of the Bureau of Fisheries and Aquatic Resources (BFAR) to visit the research institution and coordinate more closely with its experts. Accompanied by Iloilo Governor Arthur Defensor and BFAR VI Regional Director Remia Aparri, Secretary Piñol visited AQD in Tigbauan, Iloilo last 9 August 2017. During a meeting with the AQD Management Committee, Secretary Piñol directed BFAR to make use of SEAFDEC expertise in fisheries and establish closer coordination with AQD. He expressed the apprehension that "there is a 'disconnect' between research and actual implementation," while also noting that research will be useless if it is not applied in the field.

Director Aparri, who has been a former trainee of AQD, suggested to Secretary Piñol that the government could make use of AQD's regularlyconducted training courses on a range of aquaculture commodities. She testified that AOD trainees completing these courses would be armed with confidence to proceed in the aquaculture business.

Secretary Piñol also affirmed his support of AQD's research thrusts, expressing his belief in research and development in the field of aquaculture. He likewise encouraged the AQD Management to coordinate with his office for funding needs, for "the name of the game now is fish farming because our fishing grounds are no longer absolutely 'fresh,'" he declared. Strongly believing in research, Secretary Piñol assured AQD that "whatever support it might need or may require, just coordinate with us. We might have a few million hidden under the pillow somewhere, for I am a firm believer of research and development," he said.

AQD library staff heads input methodology training in Malaysia

AOD Senior Information Assistant Mr. Daryl Superio conducted a Training Course on Aquatic Sciences and Fisheries Abstracts (ASFA) Inputting Methodology on 2-6 July 2017 at the Universiti Malaysia Terrengganu (UMT), Terengganu, Malaysia. Mr. Superio was invited on behalf of the ASFA Secretariat of the Food and Agriculture Organization (FAO) to train ten UMT library staff on ASFA rules on bibliographic description, data entry, database installation and record importation and exportation. AQD has been an active ASFA collaborating partner since 2013.



UMT Library staff learns about importation and exportation of ASFA records with Mr. Daryl Superio

Seven trainees complete international marine fish hatchery course



Seven participants completed the 37-day training on marine fish hatchery operations from 20 June to 26 July 2017 at AQD's Tigbauan Main Station. The trainees came from the government and private sectors based in Viet Nam (1), Myanmar (1), Malaysia (1) and the Philippines

(4). The month-long course covered marine fishes such as milkfish, sea bass, grouper, snapper, rabbitfish and pompano and discussed their biology, broodstock management, larval rearing and hatchery operations, production of natural food, feed development, health management and marketing strategies. The participants also had hands-on experience on the rearing of the said commodities. The trainees went on field trips to private hatcheries and fish farms in Oton and Dumangas in Iloilo and Roxas City, Capiz where they witnessed actual marine fish hatchery operations, and also visited AQD's Igang Marine Station and Dumangas Brackishwater Station.



Workshop on Appropriate Fishing Vessel Design

Appropriate Fishing Vessel Design" from 3 to 4 July 2017 in Bangkok, Thailand to promote and improve awareness on energy efficiency to reduction of greenhouse gas impact from fishing vessels in Southeast Asia. The Workshop made use reflecting appropriate fishing vessel of compiled information on the concepts of appropriate fishing vessel design to support fishing vessel's operational base on fuel efficiency use, safety at sea,

TD organized the "Workshop on improved working and living conditions, and reduction of manpower onboard. A total of 40 participants representing fishery associations and other stakeholders attended the Workshop which came up with a conceptual plan for fishing vessels design based on energy efficiency and safety at sea of fishing vessel operations including improved good working and living conditions onboard. X

IFRDMD researcher joins training in Gifu, Japan

The "Inland Fisheries Training Program" was organized at Gifu Prefectural Inland Fisheries Training Center in Japan from 29 August to 8 September 2017. The training was aimed at facilitating the international contribution of the technical cooperation and training for Southeast Asian countries. Researcher from IFRDMD, Ms. Sevi Sawestri, joined the training course which was also attended by participants from Malaysia, Philippines, and Thailand, which included the techniques in fishing and breeding of ayu (Plecoglossus altivelis) also known as sweetfish. This training course was also part of the Globally Important Agricultural Heritage System (GIAHS) program.



At the start of the Training Course, the Director of Gifu Prefectural Research Institute for Fisheries and Aquatic Environments and Inland Fisheries Training Center, Mr. Yutaka Nakai, introduced the GIAHS program: Ayu of the Nagara River System. In

addition, the participants were also given lectures about the various environmental conservation initiatives, fishery zone management, aquaculture dissemination techniques, and system for tourism and branding.

Aside from the knowledge gained, this Training provided the participants with the insights on how to manage the link between fisheries and cultural heritage to the forefront of development, not only because of the great heritage value of outstanding fisheries systems, but also in view of their historic, current and potential future contribution to food security and sustainable development.



SPECIAL REPORT

Gathering Catch Statistics and Related Data on Inland Fisheries

Dina Muthmainnah, Ni Komang Suryati, Sevi Sawestri and Satoshi Honda By SEAFDEC Inland Fishery Resources Development and Management Department (IFRDMD)

In 2017, IFRDMD learned and shared the experiences of Indonesia and the Philippines on gathering data and statistics of inland fisheries. Inland fishery statistics, data and information in many countries in the Southeast Asian region have been reported to be either inadequate or far from complete and not timely, which could be one of the reasons for the minimal attention given by many policy makers to inland fisheries development. Being responsible for the development of guidelines for basic data collection for routine monitoring activities of the different types of freshwater fish habitats, IFRDMD therefore launched the activity on improvement in the collection of data on inland fisheries.



Importance of Collecting Data, Information and Statistics

Statistics on catch and related information on fisheries are among the fundamental data used to determine the present situation of fisheries as well as the status of the fishery resources, and could help the decision makers in developing fisheries management policies and measures for the sustainable development and management of fisheries. In order to understand the relevance of compiling catch statistics, especially on inland capture fishes, IFRDMD studied the features of the national strategies on gathering information on inland capture fisheries that had been established in the Philippines and Indonesia.

In 2017, IFRDMD learned and shared the experiences Overview of Data and Information Gathering Systems

While the National Stock Assessment Program (NSAP) of the Philippine Bureau of Fisheries and Aquatic Resources (BFAR) is responsible for collecting national data and statistics on capture fisheries, Indonesia's One Data Policy (ODP) of the Center for Data, Statistics and Information of the Ministry of Marine Affairs and Fisheries (MMAF) of Indonesia handles such task for Indonesia. NSAP makes use of a standardized method of data collection to come up with science-based policy recommendations for the conservation and management of the fishery resources in the Philippines. For example, enforcement of the closure or banning of fishing activites of certain species in specific areas, such as the closed season for sardines fishery in Zamboanga and Visayan Seas, was based on scientific evidence compiled by NSAP. For freshwater fisheries such as in Taal Lake in Batangas Province southeast of Metro Manila, NSAP data were used as basis for the enforcement of the closed season for the freshwater sardine, Sardinella tawilis as part of the management plan of Taal Lake. NSAP also makes sure that enumerators are trained on the collection method of catch and effort data, and fish identification, among others. The methods used by NSAP to conduct surveys at landing sites start with the enumerators taking samples from at least 10% of the landed boats by gear. The data are then inputted into the NSAP Database System (NSAP DB), designed to establish efficient means of storing, managing and retrieving data for analytical purposes. The analyzed are used as primary basis for BFAR in developing fisheries policies or regulations and management strategies towards sustainable fisheries.

For Indonesia, the One Data Policy (ODP) established by the President, considers that its Highly Integrated Data is key to the integration of development, equitable welfare and inclusive sustainable economic development. The ODP is also used for the formulation of national policies, implementation policies, technical policies, regulations, planning, and in decision making. The MMAF uses data processor (or enumerators) assigned to visit the respondents, record and input the data collected. MMAF makes use of 16 templates of questionnaires each consisting of 7 lists of questionnaires and 9 transactions and/or production questionnaires for producing the ODP. In order to support the implementation of data collection, the importance of various types of fishery information and application of various information collection techniques to

specific situations in inland fisheries are needed. The systems used by Indonesia and the Philippines are compared as shown in **Box 1**.

Participation of Stakeholders in Gathering Data on Inland Fisheries

Inland capture fisheries are extremely important to the livelihoods of the Philippine and Indonesian people, and most of the households are located in the low-production groups, and utilize their production mainly for household consumption. In the Philippines

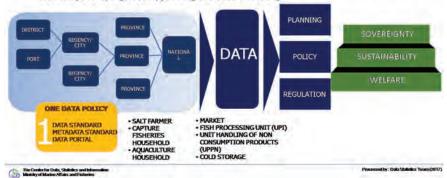
and Indonesia, the participation of the households is sought to obtain the data and information on fishing households. The data from the various sources are then combined and analyzed to determine the total inland fisheries production. Databases had been developed in the Philippines and Indonesia, where the merged data sets necessary for assessing the status of inland capture fisheries are inputted.

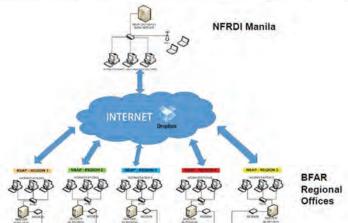
Box 1. Comparison of the systems used by the Philippines and Indonesia in collecting data from inland fisheries

Philippines	Indonesia				
Enumerator collects data through direct interview of the fishers or fishing operators and takes notes of • Total landed catch • Fishing method/fishing gear used • Fishing effort 1) Record the actual catch sampling, and determine the total weight of catch 2) Sort by species and determine total weight per species 3) Take sub-samples per species and measure length and weight 4) Record the data that contain all the important information needed	Enumerator collects the data by visiting the respondents to obtain primary data according to location and specific period Enumerators input the data into the application every three days The annually recorded data will show the number of boats per type and size, number of fishing gears, and number of fishers, collected by monthly sampling				
The data are validated by data managers and analysts	The data are validated by central government in five days for checking the relationship with completeness of data; accuracy of data and logic of data				
Only designated NSAP Coordinator per region and National NSAP Coordinator can access the data, but the result of NSAP is published and presented during the scientific review	Dissemination of data on marine and fisheries can be easily accessed by online (www.sidatik. kkp.go.id)				

IMPORTANCE OF DATA

Validated data will be used for the formulation of national policies, implementation policies, technical policies, regulations, planning and decision making.





The data sets include information on inland water bodies with geographic and time reference, and are stored together and shared with the same spatial references, hence, detailed information on production status and trends of inland capture fisheries could be more accurately presented and estimated, making these more beneficial for fishery resources management and policy formulations.

Recommendations for Improvement of Fishery Statistics

In order to improve data collection on catch statistics and related information on inland capture fisheries, some recommendations are provided as shown in **Box 2**.

Box 2. Recommendations for improving collection of catch statistics on inland capture fisheries

- In monitoring the present situation of fish stock through CPUE, data to be collected should not only be on the catch but also on fishing effort;
- Different species should be handled separately, e.g. rice-paddy eel and anguillid eel;
- Activities in inland fisheries that are highly seasonal, with the highest peak during flood receding periods or at the end of the rainy season, should be considered when collecting and analyzing the catch statistics on inlan capture fisheries; and
- Lectures should be regularly organized for fishers to understand the importance of compiling data on catch and coming up with the catch statistics.



REGIONAL PROGRAMS

SEAFDEC Meeting on Review of the JTF-VI and Consideration for JTF-VII Projects

A meeting was convened by VII Projects." The Meeting was attended

SEAFDEC on 3 August, 2017 in by officials of the SEAFDEC Secretariat, Bangkok, Thailand on the "Review of TD, MFRD, AQD, MFRDMD, and Japanese Trust Fund-VI Projects and IFRDMD, as well as the new SEAFDEC Consideration of Japanese Trust Fund- Council Director for Japan Mr. Shingo

Ota, and the National Coordinator for Japan Mr. Kiichiro Miyazawa. During the meeting, the participants reviewed the current JTF-VI projects which were implemented since 2013 that would be completed in 2019, and discussed the prospects of future JTF-VII projects expected to commence in 2020.

This is the first meeting of SEAFDEC to discuss the JTF-VII projects, while the second meeting is tentatively scheduled in October 2017, the results of which would be subsequently submitted to the forth- coming SEAFDEC Program Committee Meeting scheduled in November 2017. \gg

Setting in motion the JAIF project on tropical anguillid eels

(2017-2019) "Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia" supported by the Japan-ASEAN Integrated Fund (JAIF), a SEAFDEC mission led by SEAFDEC Deputy-Secretary General Dr. Kaoru Ishii, visited the Department of Fisheries (DOF) of Myanmar on 4 July 2017 and also paid courtesy call to the Deputy Director-General of DOF Myanmar Mr. Myint Zin Htoo. During the discussion, the DOF Myanmar was requested to support the Project activities in coordination with SEAFDEC during 2017-2019, to ensure effective and smooth project implementation of the activities in Myanmar, i.e. making arrangements for discussions on eel issues, as well as gathering and collecting catch data and other statistics on anguillid eels.

In order to reinforce the activities planned under the Project, a oneday Project Planning Meeting was

Under the new two-year project subsequently convened by the SEAFDEC Secretariat in collaboration with SEAFDEC/IFRDMD and AQD on 4 August 2017 in Bangkok, Thailand. Aimed at setting up the Project work plan, the Meeting discussed the need to improve the method of collecting eel statistics towards better understanding of the status of utilization of tropical anguillid eels, development and dissemination of aquaculture technology to increase survival of eels, and formulation of joint management system for eel resources in Southeast Asia.

> In the meantime, a series of surveys were also conducted under this project. On 14-18 July 2017, a team led by IFRDMD in collaboration with the Philippine Bureau of Fisheries and Aquatic Resources (BFAR) carried out a field survey on anguillid eel farming and industry in Tuguegarao, Cagayan Province in Northern Luzon and in the outskirts of Metro Manila, Philippines. Subsequently, from 28 August to 1 September 2017, another baseline survey



At the Planning Meeting of the JAIF project on tropical anguillid eels

was conducted in Cambodia. These surveys were aimed at obtaining clear understanding of the current situation of catadromous eel resources, fisheries and utilization in Southeast Asia for the development of management measures towards the sustainable utilization of eel resources. Findings from the surveys would not only serve as basis for the establishment of catadromous eel data collection system, but also provide fundamental information for planning of regular eel survey in the future.



Promotion of sustainable fisheries resources enhancement measures in Cambodia

SEAFDEC/TD implemented the activities under the project "Promotion of Sustainable Fisheries Resources Enhancement Measures in Critical Habitats and Fishing Grounds" with the Angkual Village of Kep Province in Cambodia as a pilot site. With initial activity on the enhancement of the blue swimming crab resources in that area, a visit to the Angkual fishing communities was made during 28-30 June 2017 to resources, and a meeting with staff of Office, was convened. Fisheries Administration (FiA) from



Meeting with Ou Karsar crab bank group and CORIN Cambodia



Meeting with Angkual Communities Fisheries (CFi) in Kep Province

obtain information on the current fishery its Head Quarters and Kep Provincial pilot site. The planned activities include:

staff of Community Fisheries (CFi) of surveillance; 4) introduction of penalties Angkual Village was organized during for fishermen operating illegally in 2 to 6 July 2017 to identify the problems the conservation area; 5) notifying related to fishery resource enhancement. fishermen of the fishery regulations The Meeting came up with the overview on conservation areas and prevention of the fisheries situation in Kep Province of catch; 6) introduction of penalties and the issues and concerns related to for fishers landing small-size crabs; 7) the swimming crab resources in Angkual establishment of micro credit fund; and Village. The information was used to 8) improvement of the administrative plan the activities towards enhancing capacity of provincial government the blue swimming crab resources in the officials.

1) introduction on technical hatching; 2) establishment of gravid crab supply As a follow-up, a meeting with the system; 3) implementation of fisheries

Technical assistance for Cambodia to develop fishing licenses database

Under the project "Promotion of (RFVR) in the near future. After the Fishing License Database System" and the Regional Fishing Vessels Record The "Introduction of the Structure of

Countermeasures to Reduce IUU database had been developed, TD the "Introduction of the Access and Fishing," TD supported and assisted in collaboration with FiA Cambodia Inputs to the Fishing License Database the Fisheries Administration (FiA) organized the "On-site Training on System" were discussed during the of Cambodia to develop their fishing Implementation of Fishing License lecture sessions of the training. The vessels licensing database system, taking Database System for FiA Cambodia" trainees also underwent the practical into account the reliable and standard in Koh Kong Province, Cambodia session on actual inputting of raw data system of sharing the information with from 31 August to 1 September 2017. into the database.



TD provides support on larvae studies for Cambodia

SEAFDEC/TD organized the training was conducted and supervised by from the Fisheries Administration (FiA) of Cambodia.

on fish larvae identification. The training Asia."

on "Fish Larvae in Cambodian Waters SEAFDEC researchers and resource and Human Resource Development on persons on fish larvae identification. This Larvae Identifications" from 1 to 31 activity is a follow-up of the "Marine August 2017 at the TD premises in Samut Fisheries Collaborative Research Prakan for two (2) potential researchers Survey" conducted in Cambodian Waters in 2016, among the collaborating partners such as the FiA of Cambodia, National Fisheries University (NFU) of Japan, and The objective of the training was to TD under the project "Offshore Fisheries enhance the capacity of the researchers Resource Exploration in Southeast



Second TWG Planning Workshop of USAID Oceans



with The United States Agency for International Development (USAID) organized the "Second Technical Group Planning Workshop" of the Oceans and Fisheries Partnership (USAID Oceans) from 12 to 14 July 2017 in Bangkok, Thailand. The Workshop was aimed at taking stock of the past year and discussing the activities for Fiscal Year 2017 (Program Year 3) with the involvement of TWG members from both learning sites in Philippines and Indonesia including the expansion sites. Learning sessions were also conducted to share the approaches used related to fisheries appraisal, value chain analysis, and Traceability System (CDT), and also intends to improve integrated gender and labor analyses at the learning sites during the past year. The Workshop came up with the draft USAID Oceans Year 3 work plan aligned with country specific tasks and related work plans of partner organizations including work the U.S. and regional efforts in Asia plan for the expansion sites.

The Oceans and Fisheries Partnership (USAID Oceans) is a collaborative project between SEAFDEC and USAID with five-year activities towards strengthening regional cooperation to combat illegal, unreported and unregulated (IUU) fishing and conserve marine biodiversity in the

SEAFDEC/TD in collaboration development of Catch Documentation Asia-Pacific region. USAID Oceans and sustainable fisheries management, focusing on priority species that are vital for food security and economic growth and under threat from IUU fishing and seafood fraud. The activity supports and the Pacific to promote sustainable fishing practices and combat fraud and the sale of fishery products from IUU fishing. The sub-purpose is to improve fisheries management standards through integration of conservation and fisheries management in at least eight (8) countries in the Asia-Pacific region by 2020.



SEAFDEC participates in CTI-CFF/USAID Inception Workshop

Two (2) representatives from SEAFDEC/TD participated in the "CTI-CFF/USAID Inception Workshop: Building-Up a Regional Catch Documentation and Traceability (CDT) System and Advancing Fisheries Management for Strengthening Food Security in Coral Triangle Region," held on 25-26 September 2017 at the Headquarters of CTI-CFF Regional Secretariat in Manado, North Sulawesi, Indonesia. The Workshop aimed to introduce the progress of CTI-CFF on the development of a traceability system, exchange information on existing traceability systems among CTI-CFF Member Countries, and build better understanding on the benefit of introducing traceability system in



fisheries management (EAFM) and in the international market.

The Workshop was attended by representatives from the CTI-CFF Member Countries, namely: Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, Timor-Leste, as well as from the USAID Oceans and Fisheries Partnership, NOAA, Indonesian Tuna Association human well-being.

ECOHUB, Sam Ratulangi University, PT. Palau Mas, and SEAFDEC.

During the Workshop, the SEAFDEC representatives introduced the electronic system of ASEAN Catch Documentation Scheme (eACDS) as a tool to prevent the entry of products from IUU fishing activities into the supply chain. The eACDS can be implemented together with many good fishing practices, such as responsible fishing practices, labor control (if required), fish handling and food safety practices which could also be linked to good governance and enhanced healthy ecosystem approach, sustainable resources management, and enhanced

USAID Oceans convenes Multi-Stakeholders Workshop in Thailand

SEAFDEC/TD in collaboration with the Department of Fisheries (DOF) of Thailand, and the Oceans and Fisheries Partnership (USAID Oceans) organized "The Multi-Stakeholders Workshop on Fisheries Management Planning Process" from 29 to 30 August 2017 in Songkhla Province. Seventy-nine (79) participants who were fishers, fisheries stakeholders, USAID Oceans Technical Working Group member from Thailand, SEAFDEC staff and USAID Oceans staff took part in the output of the Workshop

Workshop aimed at supporting the DOF of Thailand to initiate the crafting of the small pelagic fisheries management plan for Southern Thailand. The Workshop proceeded with the strengthening of the Catch Documentation and Traceability (CDT) System as effective tool for combating IUU fishing and seafood fraud. The learning site profile of Songkhla Province with the issues and challenges of small pelagic fisheries in Southern Thailand was the envisaged

Regional Gender Strategies Implementation Workshop



SEAFDEC/TD in collaboration with the USAID Oceans organized the "Regional Gender Workshop: Gender Strategies Implementation in the Oceans and Fisheries Partnership Activity" from 21 to 22 August 2017 in Bangkok, Thailand. There were 63 participants in the above-mentioned Workshop,

comprising the Technical Working Group (TWG) for Human Welfare of USAID Oceans from the SEAFDEC Member Countries, SEAFDEC and USAID Oceans staff, and relevant partners. The Workshop disseminated the results of the gender analysis on the fisheries sector at the two learning sites of USAID Oceans, namely; General Santos City, Philippines and Bitung, North Sulawesi, Indonesia. The Workshop came up with list of interventions to be provided grants under the USAID Oceans at the learning sites; proceedings with sections on gender analysis methodologies, results, gender.



Regional Workshop on **Fisheries Management Planning**



The "Regional Workshop on Fisheries Management Planning in Southeast Asia" was organized by SEAFDEC/TD in collaboration with the Oceans and Fisheries Partnership (USAID Oceans) from 23 to 25 August 2017 in Bangkok, Thailand. Eighty-nine (89) participants from the SEAFDEC Member Countries. USAID Oceans Technical Working Group members of EAFM and Human Welfare, SEAFDEC staff. USAID Oceans staff. relevant international organizations, and relevant partners took part in the Workshop. The Workshop had the main objective of building the capacity of relevant stakeholders on fisheries management planning using the concept of Ecosystem Approach to Fisheries Management (EAFM) with focus on the Gulf of Thailand, Andaman Sea and Sulu-Sulawesi Sea areas. X

Project Evaluation and Progress Meeting for Cold Chain Management in Seafood

The Project Evaluation and Progress Meeting of the SEAFDEC/MFRD Project "Cold Chain Management for Seafood" was conducted in Singapore on 25-27 July 2017, and attended by 21 participants from the government and private sectors of the 10 ASEAN-SEAFDEC Member Countries. A Post-Doctoral Scientist from Curtin University of Australia, Dr. Janet Howeison was invited to participate in the Meeting to help facilitate the discussion on the draft Guidelines on Cold Chain Management for Fish and Fishery Products. She was the expert trainer at the previous workshop on cold chain management for seafood held in 2015.



At the Meeting, the participants presented updates on the cold chain pilot trials conducted in Member Countries. as well as discussed and evaluated the results of the pilot trials including issues and challenges encountered during implementation and national activities conducted. The Meeting also discussed

the preliminary draft of the Guidelines on Cold Chain Management for Fish and Fishery Products. Following the Meeting, the draft will be sent to all Member Countries for further comments before finalization and endorsement during the End-of-Project Meeting planned by the end of 2017. X

Regional Training Course on Specimen Preservation and its Application in HAB Monitoring and Studies



Fund, SEAFDEC/MFRD organized the "Regional Training Course on Specimen Preservation and its Application in Harmful Algal Bloom (HAB) Monitoring and Studies" in collaboration with the Institute of Ocean & Earth Science (IOES), University of Malaya (UM) at its Bachok Marine Research Station on the course, indicating that it was well (BMRS) in Kelantan, Malaysia from 10 to 13 July 2017. The training course was run by 2 expert trainers from IOES-UM and 1 Japanese expert. A total of 22 participants from the 9 ASEAN-SEAFDEC Member Countries (except and toxin characterization techniques.

Supported by the Japanese Trust Myanmar) participated in the training course that included both lectures and practical sessions on specimen preservation methods and techniques, use of fluorescence and electron microscopy, as well as flow cytometry.

> While providing positive feedback conducted and beneficial to their work, the participants also suggested that the next training course to be conducted in 2018 could include primer and probe designs for PCR, HAB species culture



SEAFDEC participates in the FAO SSF Guidelines Workshop

Committee on Fisheries (COFI) endorsed SEAFDEC in the said Workshop which the Voluntary Guidelines for Securing brought together experts and key actors Sustainable Small-Scale Fisheries in the of organizations to discuss and provide Context of Food Security and Poverty recommendations on the scope, key Eradication (SSF Guidelines) in 2014, indicators and participatory principles a sequence of follow-up events had to form the basis of the SSF Guidelines been organized at global, regional and implementation monitoring system. national levels.

Workshop on Securing Sustainable Small-Progress of the Implementation of the Small-Scale Fisheries Guidelines" Officer (concurrently SEAFDEC- workshop participants.

Since the 31th Session of the FAO Sweden Project Manager) represented

In the monitoring framework The most recent was the "Expert initiated by FAO, States and other actors are provided with useful information, Scale Fisheries: Towards Monitoring tools and systems for tracking the progress of implementation of the SSF Guidelines in line with other international convened by FAO on 5-7 September commitments (i.e. SDGs, Aichi Targets, 2017 at the Rockefeller Foundation etc.). During the Workshop, experiences Bellagio Center, Italy. Ms. Pattaratjit on monitoring the SSF Guidelines Kaewnuratchadasorn, Senior Policy implementation were shared among the

Inception Workshop between SEAFDEC and MRC

Following-up on the Memorandum of Understanding (MOU) signed between SEAFDEC and the Mekong River Commission (MRC) in July 2017 for "the Promotion of Sustainable Development of Fisheries and Aquaculture in Lower Mekong Basin and Southeast Asia," an Inception Workshop was convened on 1 September 2017 at MRC Secretariat in Vientiane, Lao PDR. The Workshop was aimed at setting up the priority plan of activities based on the MOU and discussing the possible assistance as requested by the Member Countries, from the MRC and/or SEAFDEC.



SEAFDEC promotes eACDS at the Coral Triangle Fishers Forum

Two representatives from SEAFDEC/TD attended the "Third Coral Triangle Fishers Forum" organized by the Ecosystem Approach to Fisheries Management (EAFM) Working Group of the Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security (CTI-CFF) from 4 to 6 July 2017 in Iloilo, Philippines. Supported by the World Wild Fund for Nature (WWF) and the CTI-CFF Regional Secretariat, the Forum discussed sustainable coastal fisheries through local innovations: scaling up of effective models for IUU fishing reduction, catch documentation and traceability in support of sustainable local fisheries. The Forum was attended by CTI-CFF Member Countries, namely: Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, Timor-Leste, Oceans and Fisheries Partnership, WWF, Pacific Community (SPC), and SEAFDEC. During the Forum, the SEAFDEC representatives took the opportunity to introduce the electronic system of the ASEAN Catch Documentation Scheme (eACDS) at the Plenary and Demonstration Session to promote the activities of SEAFDEC in reducing IUU fishing through innovative technology which could be applied locally. X

Cooperation in Mekong River Basin Sub-region and **Comparative Study of Laws** and Legislations of Cambodia and Lao PDR

Through the effort of the SEAFDEC-Sweden Project on strengthening the cooperation between Cambodia and Lao PDR, a Memorandum of Agreement (MOA) for continued collaboration was developed and signed by the concerned agencies of these two countries in 2014. As an upshot, the SEAFDEC-Sweden Project facilitated the initial comparative study carried out by national consultants and officers, on the legal and institutional arrangements relevant to fisheries in areas bordering the two countries. The final output is a "Comparative Study of Laws and Legislations of Cambodia and Lao PDR: Trans-boundary areas between Champasak in Lao PDR and Stung Treng in Cambodia." Results of the study could be used as tool for raising the awareness of concerned stakeholders on the rules and regulations relevant to fisheries and habitat management in each country.

In this connection, the SEAFDEC-Sweden Project Team participated in the Joint Workshop on Transboundary Fisheries Management on the Mekong and Sekong Rivers in Cambodia and Lao PDR, hosted by Mekong River Commission (MRC) under the Mekong Integrated Water Resources Management Project (M-IWRMP) on 24 August 2017 in Pakse, Champasak, Lao PDR. The Project Team shared the experiences to serve as basis for working towards common targets to improve fisheries management in the area and in support of the effort to strengthen the capacity of relevant line agencies.



Experts Workshop for Securing Sustainable Small-Scale Fisheries on Human Rights-Based Approach and Gender Equitability



The SEAFDEC-Sweden Project and research institutions, the Embassy organized the "Experts Workshop of Sweden in Bangkok, and from local on Regional Approach for the development agencies and programs, Implementation of FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries: Human Rights-Based Approach and Gender Equitability" on 26-28 September 2017 in Bangkok, Thailand. The Workshop aimed to discuss and clarify the basic elements, such as human rights-based and gender equality approaches, in the Small-Scale Fisheries Voluntary Guidelines (SSFVG) in support of food security and poverty eradication in ASEAN Member States. Approximately forty (40) participants comprising experts and policymakers on small-scale fisheries from government and international organizations such as FAO, USAID Oceans, and the Mekong River Commission, as well the region. as representatives from the academic

attended the Workshop.

During the Workshop, the experts provided valuable contributions for the development of a draft policy brief on "Applying Human Rights-Based and Gender Equality Approaches to Small-Scale Fisheries in Southeast Asia." The policy brief incorporated the outcomes of the Workshop with regards to the applicability, relevance and importance of mainstreaming the "human rightsbased approach" and "gender-equitable small-scale fisheries perspective" to secure sustainable small-scale fisheries and the ways to develop a common understanding among the countries of

Meeting on shark stock assessment

SEAFDEC/TD organized the "Technical Consultation Meeting on Shark Stock Assessment and Improvement of Data Collection in the Southeast Asian Region" from 18 to 20 September 2017 in Bangkok, Thailand. The Consultation was aimed at providing the necessary skills in stock assessment to researchers from the Southeast Asian countries, determining the appropriate model for shark stock assessment, and developing the work plan for the proposed stock assessment training Indonesia, Malaysia, Thailand, Viet workshop to promote the said model to the SEAFDEC Member Countries. Consultation.



Twenty-two (22) participants from Nam, and SEAFDEC attended the

FUTURE ACTIVITIES

Date	Venue	Title 2017	Organizer(s)
11 Sep-16 Dec	Online	Distance Learning Course on Principles of Health Management in Aquaculture (AquaHealth Online)	AQD
12-14 September	Bangkok, Thailand	Regional Technical Consultation on Evaluation of Implementation and Utilization of the RFVR 24 Meters in Length and Over to Reduce IUU Fishing in ASEAN	TD
13-14 September	Thailand	Training of Trainers on Ecosystem Approach for Fisheries Management (EAFM) for DOF Thailand	TD
2-14 September	Kuala Lumpur, Malaysia	Core Expert Meeting on Purse Seine Fisheries	MFRDMD
8-27 September	Iloilo, Philippines	Training Course on Mangrove Crab Nursery & Grow-out Operations	AQD
25-26 September	Manado, Indonesia	CTI-CFF/USAID Inception Workshop: Building-up Regional Catch Documentation and Traceability (CDT) System and Advancing Fisheries Management for Strengthening Food Security in Coral Triangle Region	CTI-CFF and USAID-Oceans
26-28 September	Bangkok, Thailand	Experts Workshop on Regional Approach for the implementation of FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries: Human rights-based approach and gender equitability	Secretariat
26-29 September	Vung Tau, Viet Nam	On-Site Training on Elasmobranch Taxonomy and Biology	MFRDMD
10-12 October	Singapore	18 th Meeting of Information Staff Program (ISP)	Sec & MFRD
15-20 October	Brunei Darussalam	2 nd Training Course on electronic ASEAN Catch Documentation Scheme (eACDS)	Secretariat
17-18 October	Phnom Penh, Cambodia	Technical Meeting of the Joint Working Team for Fisheries Management between Cambodia and Viet Nam	Secretariat
23-27 October	Binangonan, Philippines	Training Course on Catfish Hatchery & Grow-out Operations	AQD
24-27 October	Rome, Italy	9 th Session of the FAO Sub-Committee on Aquaculture	FAO
31 Oct -2 Nov	Pattaya, Thailand	Sub-regional Consultation on the Development of MCS in the Gulf of Thailand	Secretariat
5 November	Kuala Terengganu, Malaysia	25 th Anniversary of SEAFDEC Marine Fishery Resources Development and Management Department (MFRDMD)	MFRDMD
6-11 November	Ranong Province, Thailand	Regional Training Course on Essential Ecosystem Approach to Fisheries Management (E-EAFM)	TD
7-9 November	Kuala Lumpur, Malaysia	4 th Scientific Working Group on Neritic Tunas Stock Assessment and Advance Training Course on Risk Assessment of Longtail Tuna and Kawakawa in the Southeast Asian Waters	MFRDMD & Secretariat
14-16 November	Bangkok, Thailand	APFIC/FAO Regional Consultation "Building Climate Resilient Fisheries and Aquaculture in the Asia-Pacific Region"	APFIC
15 November	Bangkok, Thailand	50 th SEAFDEC Anniversary Event	SEAFDEC
16-17 November	Bangkok, Thailand	3 rd Sub-regional Consultative Workshop of the Northern Andaman Sea/Myeik Archipelago	Secretariat
21-22 November	Bangkok, Thailand	Sub-regional Consultative Meeting on the Joint Fisheries Management Around the Southern Andaman Sea	Secretariat
21-23 November	Kuala Lumpur, Malaysia	2 nd Regional Technical Consultation on Promotion of the ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain	MFRDMD
21-24 November	Myanmar	Workshop on Development of the Fisheries Management Plan for Thahton Township, Mon State, Myanmar	TD
21-30 November	Binangonan, Philippines	Training Course on Community-Based Freshwater Aquaculture for Remote Rural Areas of Southeast Asia	AQD
27-29 November	Bangkok, Thailand	40 th Meeting of SEAFDEC Program Committee (PCM)	Sec & MFRD
30 Nov-1 Dec	Bangkok, Thailand	20 th Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (FCG/ASSP)	Secretariat
2 December	Bangkok, Thailand	SEAFDEC Department Chiefs' Meeting	Secretariat
4-6 December	Bokeo, Lao PDR	Training on Ecosystem Approach to Fisheries Management (EAFM) in Lao PDR	TD
18-22 December	Kampot, Cambodia	Training on Ecosystem Approach to Fisheries Management (EAFM) in Cambodia	TD

SEAFDEC participates in the 16th Session of the FAO Sub-Committee on Fish Trade

(Continued from Page 2)

Guidelines for Catch Documentation Schemes (CDS); reduction of fish food loss and waste; food quality, safety and market access; CITES related activities; impacts of the Marine Protected Areas (MPAs) on livelihoods, trade, food fish supply and consumption; impacts of climate change on future fish supply, trade and consumption, etc. In addition, updates on fish trade-related activities of FAO and monitoring the implementation of the post-harvest practices and trade of the Code of Conduct for Responsible Fisheries (CCRF) were also introduced for further consideration by the Sub-Committee.

CITES-related activities were among the important issues that took long deliberation due to the complexity of implementing CITES requirements. In this connection, SEAFDEC informed the Sub-Committee on the support it had extended to the Southeast Asian region, in particular, increasing the awareness and capacity building of relevent stakeholders as well as research works on sharks and anguillid eels. The Meeting was also informed on the progress of development of the ASEAN Catch Documentation Scheme and its electronic system (eACDS) as a tool to prevent the entry of fish and fishery products from IUU fishing activities into the supply chain in the ASEAN region, as well as to enhance the effectiveness of fisheries management and the intra-regional and international trade.

Regional Technical Consultation on fisheries statistics and information in Southeast Asia organized

(Continued from Page 1)

and reporting of the statistics for regional compilation were identified. The updated International Standard Statistical Classification of Fishing Gears (ISSCFG), ongoing works on the revision of the International Standard Statistical Classification of Aquatic Animal and Plants (ISSCAAP), and the new standard questionnaires on aquaculture statistics proposed by the Coordinating Working Party on Fishery Statistics (CWP) were also discussed for future improvement of the Regional Framework. The Consultation also agreed that in the future, the statistics on fish trade and fish processing would be included in the Fishery Statistical Bulletin of Southeast Asia based on the revised Regional Framework.

The Consultation also came up with policy support in order to strengthen the collection of fishery statistics by the AMSs and encourage policy makers of the AMSs to give more priority to collection of fishery statistics. The Consultation also agreed that after the adoption of the new CWP standard questionnaires on aquaculture, SEAFDEC will organize a Meeting to revise the Regional Framework for Fishery Statistics of Southeast Asia, possibly in 2020.

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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Training/Workshop on risk assessment and management of neritic tunas in Southeast Asia

With support from the SEAFDEC-Sweden Project, SEAFDEC/MFRDMD organized the "Training/Workshop on Risk Assessments and Fisheries Management Framework/Measures of Longtail Tuna and Kawakawa in Southeast Asia" on 6-10 August 2017 at the MFRDMD premises in Kuala Terengganu, Malaysia. Attended by representatives from Brunei Darussalam, Indonesia, Malaysia, Philippines, Viet Nam and Thailand, as well as staff from MFRDMD, TD, and SEAFDEC Secretariat, the Training/Workshop was part of the process of promoting the sustainable utilization of neritic tunas in Southeast Asia through regional cooperation.

At the start of the Training/Workshop, the Senior Director of Fisheries Research Institute from the Department of Fisheries Malaysia, Mr. Abu Talib Ahmad provided some insights and introduced the concept of Risk Assessment. The participants were then able to practice the software for analyzing the stock assessments of longtail tuna and kawakawa including CPUE standardization, stock assessments and management procedures based on the stock assessment results. Furthermore, the participants reported on the status of development of national management frameworks for sustainable tuna fisheries in their respective countries, based on the Regional Plan of Action for the Sustainable Utilization of Neritic Tunas in Southeast Asia.

After gaining knowledge on risk assessment and skills in stock assessment methods, especially for longtail tuna and kawakawa, the participants were encouraged to further transfer the methods learned from the Workshop to national scientists in their respective countries. It was also announced that the 4th Scientific Working Group on Neritic Tunas Stock Assessment Meeting will be convened in Kuala Lumpur, Malaysia in November 2017. \mathbb{X}



SEAFDEC convenes sub-regional technical meeting between Malaysia and Thailand

Since 2013, the SEAFDEC-Sweden technical discussion between Malaysia Project has made effort in strengthening cooperation among countries bordering the Gulf of Thailand (Cambodia, Malaysia, Thailand, and Viet Nam), with emphasis on the integration of fisheries and habitat management, managing fishing capacity, monitoring catch landings across boundaries, and combating illegal and destructive fishing for long-term utilization of the coastal and marine fisheries resources in the Gulf of Thailand Sub-region. In May 2014, the Project successfully facilitated the

and Thailand, and came up with action plans between the two countries for cooperation on management of fisheries and habitats, including the management of fishing capacity, landing across boundaries, and combating illegal fishing.

To follow-up on such initiative, the SEAFDEC-Sweden Project organized the "Second Sub-regional Technical Meeting on Effective Fisheries Management

between Malaysia and Thailand" on 25-26 July 2017 in Bangkok, Thailand.

The main task of this Meeting was to update on the progress made in line with the activity plans developed during the first Sub-regional Technical Meeting conducted in 2014. This Second Subregional Meeting also served as an opportunity for the two countries to provide updates on the development of their respective legal frameworks relevant to marine capture fisheries, sharing of information on system on landing of catch across the borders, and update the progress of work on management of transboundary resources (i.e. anchovy, Indo-Pacific mackerel and blue swimming crab (AIB) species and neritic tunas). During the discussion, the Meeting revised the action plans and came up with the way forward to further enhance the cooperation between Malaysia and Thailand in support of the bilateral cooperation on fisheries and habitat management in Southwestern Gulf of Thailand.