

**REPORT OF
THE FIFTY-SECOND MEETING OF THE COUNCIL
OF
THE SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER**

**Teleconference Session on 19 May 2020
and *Ad Referendum* Session**



**THE SECRETARIAT
SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER**

PREPARATION AND DISTRIBUTION OF THIS DOCUMENT

Report of the Fifty-second Meeting of the Council of the Southeast Asian Fisheries Development Center was prepared by Secretariat of the Southeast Asian Fisheries Development Center, in collaboration with its Departments namely, the Training Department (TD), the Marine Fisheries Research Department (MFRD), the Aquaculture Department (AQD), the Marine Fishery Resources Development and Management Department (MFRDMD), and the Inland Fishery Resources Development and Management Department (IFRDMD). The document is distributed to the SEAFDEC Member Countries and its Departments.

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REPORT OF THE FIFTY-SECOND MEETING OF THE COUNCIL OF THE SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER

(Teleconference Session on 19 May 2020 and Ad Referendum Session)

INTRODUCTION

1. The Fifty-second Meeting of the Council of the Southeast Asian Fisheries Development Center (SEAFDEC) was convened through unconventional procedures due to the unusual situation brought about by the onslaught of the coronavirus (COVID-19) pandemic that impeded the gathering of the SEAFDEC Council of Directors. The Meeting was therefore arranged to comprise the *Teleconference Session*, which was held on 19 May 2020 at 09.00-11.00 hrs (UTC+7) in order to obtain the Council's views and directives for Agenda items that require urgent consideration, and the *Ad Referendum Session*, which was subsequently convened to obtain the Council's views and directives for the remaining Agenda items.
2. The Teleconference Session was participated by the SEAFDEC Council Directors for Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Philippines, Singapore, Thailand, and Viet Nam together with their respective delegations, as well as the SEAFDEC Secretary-General, Deputy Secretary-General and the senior officials from the SEAFDEC Secretariat and Departments. The List of Participants of the Teleconference Session appears as **Annex 1**. The views and directives of the Council Director for Myanmar, who was unable to join the Teleconference Session due to technical constraints, were provided to the SEAFDEC Secretariat prior to the Teleconference Session for inclusion in the Report of the Meeting.
3. Subsequent to the discussions during the Teleconference Session, the views and directives of all SEAFDEC Council of Directors on the remaining Agenda items were sought *ad referendum* through the Reply Form provided by the SEAFDEC Secretariat.

I. PROCEDURAL MATTERS

1.1 Opening of the Meeting

4. The Chairman of the Agency for Marine and Fisheries Research and Human Resources of the Ministry of Marine Affairs and Fisheries (MMAF) and current Alternate Council Director for Indonesia, *Prof. Sjarief Widjaja*, in his capacity as the Chairperson of the Council for 2019-2020 welcomed the participants to the Teleconference Session. He expressed regrets for convening the Fifty-second Meeting of the SEAFDEC Council on-line instead of a face-to-face meeting, the first time in the history of SEAFDEC, as it is being called for during this period of crisis brought about by the coronavirus (COVID-19) pandemic.
5. Citing that one of the most affected sectors of the impacts of the pandemic is the fisheries sector, specifically the fishers whose socio-economic conditions have been affected, *Prof. Widjaja* suggested that it would be imperatively necessary during this time of crisis, to pool collaboration and support towards the implementation of the programs of SEAFDEC that endeavor to help the fishers cope with the difficulties. After thanking SEAFDEC and the Member Countries for their support and commitments during his stint as the Chairperson of the SEAFDEC Council, he expressed the hope for a much strengthened cooperation among all concerned for the realization of SEAFDEC role in assisting the fisheries sector to enable the fishers to recover from the impacts of the pandemic. His Statement appears as **Annex 2**.

1.2 Election of the Chairperson for the Year 2020-2021

6. The SEAFDEC Council Director for Japan, *Mr. Shingo Ota* was unanimously elected as the Chairperson of the SEAFDEC Council for 2020-2021, in accordance with Article 5, Paragraph 4 of the Agreement Establishing SEAFDEC.

7. In his Statement, *Mr. Ota* extended his sympathy to those affected by the COVID-19 and expressed the gratitude to medical personnel and all concerned people who have been in the frontline for combating this pandemic. He also expressed the appreciation to the SEAFDEC Secretariat for facilitating the conduct of this Teleconference Session of the Fifty-second Meeting of the Council despite the difficult situation due to the pandemic, for although the Meeting was originally planned to be convened in Fukuoka, Japan in April 2020, it was necessary to postpone the Meeting for the safety of the delegations. Nevertheless, he expressed the hope that this COVID-19 situation would be overcome soon so that the activities of SEAFDEC could be pursued for the benefit of fisheries sector in the region, and confirmed the commitment of the Government of Japan to sustain its assistance to the ASEAN Member States through SEAFDEC. He then urged the Council Directors to exchange views and ideas on the Agenda items tabled for discussions at this Session of the Meeting that require urgent consideration, as these are fundamental for the function of SEAFDEC in promoting the sustainable development of fisheries in our region. His Statement appears as **Annex 3**.

1.3 Adoption of the Agenda and Arrangements for the Meeting

8. The Council was informed by the representative from the SEAFDEC Secretariat of proposed procedures in proceeding with the discussion of the Agenda of the 52nd Meeting of the SEAFDEC Council. Specifically, the Agenda items that require urgent consideration and approval of the Council would be discussed during the Teleconference Session. For the remaining Agenda (except Agenda 8 on the Future Direction of SEAFDEC), the *ad referendum* consideration and directives of the SEAFDEC Council would be sought by the SEAFDEC Secretariat using the email or other similar platforms.

9. After careful consideration, the Council adopted the Agenda of the 52nd Meeting of the SEAFDEC Council, which would be conducted through Teleconference Session and *Ad Referendum Session*, as shown in **Annex 4**.

II. REPORT OF THE SECRETARY-GENERAL

10. The Council Director for Myanmar expressed the appreciation to SEAFDEC for implementing various programs and activities in 2019, particularly in promoting sustainable fisheries and aquaculture development for food security, livelihood and economic benefit, as well as in sustaining its impressive role as technical arm for regional fisheries development on various issues. However, he also urged SEAFDEC to consider putting more efforts in exploring the appropriate management measures and technologies that support the fisheries sector in adapting to the changing situation in the region, as well as the promotion of practical works that support fisheries at the community level.

11. The Council Director for Malaysia suggested that for projects that are scheduled to be completed in 2020 but the activities could not be undertaken due to the COVID-19 situation, SEAFDEC should consider describing its plan on how to carry out the remaining activities under the section on “SEAFDEC Programs for 2020” of Annual Report 2019.

12. In response to the suggestion of the Council Director for Malaysia, the SEAFDEC Secretariat informed the Council that there are two regional projects that are scheduled to be completed in 2020. The first is the “Establishment and Operation of a Regional System of Fisheries *Refugia* in the South China Sea and Gulf of Thailand,” which may be extended for two more years although this is still being discussed through consultation with concerned countries before the final agreement is reached. For the second project “Strengthening the Effective Management Scheme with GIS & RS Technology for Inland Fisheries and Aquaculture,” some of the project activities scheduled for implementation in 2020 may be re-scheduled, and this project would still be completed in 2020 as planned. Nevertheless, considering that the Annual Report 2019 covers the period from 1 January 2019 until the end of 2019, while the need for program adjustment in response to the COVID-19 emerged after 2019, the SEAFDEC Secretariat would appropriately accommodate the adjusted workplans in the forthcoming SEAFDEC Annual Report 2020.

13. After considering the draft Annual Report 2019 prepared by the SEAFDEC Secretariat, the Council approved the Draft SEAFDEC Annual Report 2019 for publication and dissemination to the Member Countries, relevant organizations and the public.

III. NOTE OF THE CHAIRPERSON OF THE SEAFDEC PROGRAM COMMITTEE ON THE RESULTS OF THE FORTY-SECOND MEETING

14. The Council took note of the results of the Forty-second Meeting of the Program Committee of SEAFDEC (**Annex 5**) which was held from 11 to 13 November 2019, in Chiang Mai, Thailand, as presented by the Secretary-General, *Ms. Malinee Smithrithee* in her capacity as the Chairperson of the SEAFDEC Program Committee.

15. The Council Director for Viet Nam congratulated *Ms. Malinee* for being the first woman to serve as the Secretary-General of SEAFDEC. While expressing the appreciation to SEAFDEC for the its continued effort in the implementation of the activities in 2019, she also suggested that the ways and means of implementing the programs of activities planned for 2020 should be explored by SEAFDEC, amidst the situation of the COVID-19 pandemic.

16. In responding to the concern raised by the Council Director for Viet Nam, and after expressing the appreciation for the continued support and cooperation of the Member Countries to SEAFDEC in 2019, the SEAFDEC Secretary-General stated that SEAFDEC is presently exploring the possibility of conducting its training sessions and other capacity building activities in 2020 through the on-line platform in order that the implementation of such activities could be still pursued.

17. The Secretariat received and delivered the written suggestion from the Council Director for Myanmar that proposed that SEAFDEC should consider the establishment of *refugia* for neritic tuna in Southeast Asia, and the application of GIS mapping technology to support fisheries co-management in the inshore areas of the region.

18. After the discussion, the Council approved the progress of the programs implemented by SEAFDEC in 2019 and the proposed programs for 2020, as well as recommendations of the SEAFDEC Program Committee. The Council then requested SEAFDEC to consider incorporating the recommendations of the Council at this Meeting in its future programs.

IV. NOTE OF THE CHAIRPERSON OF THE FISHERIES CONSULTATIVE GROUP (FCG) OF THE ASEAN-SEAFDEC STRATEGIC PARTNERSHIP (ASSP) ON THE RESULTS OF THE TWENTY-SECOND MEETING

19. After taking into consideration the recommendations made during the Twenty-second Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (22FCG/ASSP) on 14-15 November 2019 in Chiang Mai, Thailand (**Annex 6**) as presented by the representative from Viet Nam, *Ms. Nguyen Mai Huong* on behalf of the ASEAN Co-chair for the 22FCG/ASSP Meeting, the Council endorsed the Report of the Twenty-second Meeting of the FCG/ASSP.

20. With regards to the updating of the Database of Regional Fishing Vessels Record (RFVR) for vessels 24 meters in length, in a written statement received by the Secretariat, the Council Director for Myanmar confirmed that Myanmar would submit the country's inputs for the Database in July 2020. As for the establishment of the database for vessels less than 24 meters in length, he expressed the apprehension that preparation of the required data set would need more time. He also requested SEAFDEC to continue providing capacity building to the staff of the Department of Fisheries of Myanmar through the planned training courses of SEAFDEC, and expressed the commitment of Myanmar to support and collaborate with the other ASEAN Member States (AMSs) on the establishment of the regional and sub-regional Monitoring, Control and Surveillance (MCS) Network.

V. POLICY CONSIDERATION ON IMPORTANT ISSUES

5.1 Issues on Combating IUU Fishing

5.1.1 ASEAN Guidelines to Prevent the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain

21. The Council noted and considered the summary of the progress made by MFRDMD in promoting to the ASEAN Member States (AMSs) the implementation of the ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain as well as the updated results of the self-evaluation by the AMSs on the implementation of the Guidelines (**Annex 7**).
22. While expressing the view that the self-evaluation of the implementation of the ASEAN Guidelines is useful, the Council Director for Myanmar suggested that the evaluation should be conducted annually as a regular procedure. Along line with such a suggestion, the Council Director for Malaysia agreed that the self-evaluation of the implementation of the Guidelines should be conducted annually.
23. The Council Director for Japan reiterated his suggestion during the 51st Meeting of the SEAFDEC Council, that MFRDMD should consider finding alternative methods of externally evaluating the progress made by each country in the implementation of the Guidelines, *e.g.* to conduct surveys every few years.
24. The Council Director for Indonesia suggested that MFRDMD should consider developing a methodology and reformulating the evaluation form, which should not only assess the effectiveness of the AMSs in the implementation of the Guidelines, but should also serve as means of identifying the challenges and required capacity to address the gaps of each AMSs that hinder the implementation of the Guidelines, the result of which would serve as basis for SEAFDEC to provide further assistance to the respective AMSs in the future.
25. The Council Director for Thailand expressed the view that since the Guidelines serves as an effective tool for the AMSs in combating IUU fishing, regular monitoring of the progress made by the AMSs in the implementation of the Guidelines is necessary. He also suggested that the results of the self-evaluation of the AMSs should be submitted to SEAFDEC to serve as the basis for reviewing and updating the Guidelines as appropriate. Moreover, as the self-evaluation exercise also serves as a platform to facilitate sharing of information among the AMSs on their efforts in combating IUU-fishing, he also suggested that the AMSs should consider incorporating such exercise as part of the ASEAN Network for Combating IUU Fishing (AN-IUU).
26. In connection with the directives of the Council, the Chief of MFRDMD agreed that the self-evaluation should be conducted regularly by the respective AMSs. However, as the project that supported this activity has already been completed in 2019, some forms of assistance would be necessary to enable MFRDMD to sustain its support for the AMSs to continue the self-evaluation or to conduct an external evaluation, which could be considered only upon official request from the concerned country and when additional funding support is allocated to MFRDMD. In such a case, the result of the self-evaluation shall be presented during relevant SEAFDEC meetings. The Chief of MFRDMD added that the AMSs had been informed during the project terminal meeting in Kuala Lumpur in September 2019 on the IUU Fishing Index developed by external organizations, which could be applied to the region. Nonetheless, MFRDMD is also willing to develop a methodology and reformulate the evaluation form subject to allocation of additional funding support. MFRDMD also agreed with the suggestion of the Council Director for Thailand to support and cooperate with the AN-IUU as necessary, in the future.

5.1.2 Regional Fishing Vessels Record

27. The Council considered the document that summarizes the progress of works undertaken by TD on the Regional Fishing Vessels Record (RFVR) (**Annex 8**). Specifically, the Council was also informed of the results of the discussions during the “Meeting on Regional Fishing Vessels Record in Southeast Asia” organized on 13-14 May 2019 in Seoul, the Republic of Korea as side event during the FAO’s “Fifth Meeting of the Global Record Informal Open-Ended Technical and Advisory Workshop Group (GRWG5),” as well as the agreed schedule for the AMSs to provide the updated information for the RFVR Database for vessels 24 meters in length and over.
28. With regards to the existing Database of the RFVR for vessels 24 meters in length and over, and the efforts of Indonesia to regularly provide its updated data twice a year through its focal point, the Council Director for Indonesia encouraged the other Member Countries to also actively provide updated data for the Database, as this serves as a tool to combat IUU fishing activities in the region.

29. The Council Director for Myanmar informed the Meeting on the period of effectivity of fishing licenses in Myanmar, which is from 1 September to 31 August of the following year. In this regard, he reiterated that his country's fishing vessels data for the 2018-2019 fishing season (1 September 2018 - 31 August 2019) is being checked and relevant data will be submitted to SEAFDEC in due course. He added that while the data for 2019-2020 fishing season (1 September 2019 - 31 August 2020) will be prepared soon, the necessary data would be provided to SEAFDEC as soon as this is available.

30. The Council Director for Japan also reiterated the importance for all the AMSs to submit their respective updated data based on the agreed schedule, to enable SEAFDEC to update the RFVR Database, as this would to promote improved utilization of the RFVR Database.

31. Regarding the schedule for the AMSs to provide data for the RFVR Database, the Council Director for Thailand expressed the view that the AMSs should not only update their data twice a year but should also consider more frequent updating of their inputs in order that the Database could provide more trustworthy and accurate data anytime.

32. The Council Director for Malaysia also suggested that in the future, the RFVR Database should be updated by the respective AMSs in order to enhance the effectiveness of the Database as a tool to support fishing vessel inspectors' efforts to combat IUU fishing and its consequences.

33. The Council Director for Indonesia also suggested that SEAFDEC should consider developing a system that could enhance the utilization of the RFVR Database and strengthen the collaboration and data sharing with other related regional fisheries bodies in the future. He also suggested that access to the RFVR Database could also be provided to additional officers of a country, in addition to the focal point who provides the data, considering that there are also personalities other than the data provider, who might need to access the Database for their assigned tasks.

34. The Chief of TD expressed the gratitude to the AMSs for providing their data for the RFVR Database. While acknowledging that the AMSs would be able to provide updated data this year, TD could provide the usernames and passwords to the AMSs upon request, to enable their concerned staff to access the Database. Moreover, TD is also planning to promote the utilization of the RFVR Database in close cooperation with potential direct users, such as Port State inspectors, local fisheries officers, local custom officers, local immigration officers, *etc.*, to enhance the utilization of the RFVR Database for combatting IUU fishing. TD also informed the Council that a "Teleworkshop on Development and Improvement of Regional Tools for Combating IUU Fishing in Southeast Asia" would be organized by TD on 28 August 2020 to discuss with the focal points and experts from the AMSs on the ways and means of submitting the required data in the future, and promoting and improving the utilization of the RFVR Database for 24 meters in length and over.

35. With regards to the proposed development of the RFVR for vessels less than 24 meters in length, the Council Director for Malaysia expressed the view that the minimum length of these vessels should be determined, *i.e.* from 18 meters in length, considering that vessels of this size range have the higher possibility of encroaching into the waters of the other AMSs.

36. Considering that most of the vessels that are engaged in IUU fishing activities are less than 24 meters in length, the Council Director for Thailand also suggested that SEAFDEC should conduct a series of workshops to discuss the development of RFVR Database for vessels less than 24 meters in length.

37. The Council Director for Japan also expressed the view that the inclusion of vessels less than 24 meters in length (*i.e.* 18-23.99 meters) in the RFVR Database would enhance the effectiveness of the RFVR in combating IUU fishing considering that the number of vessels in this size range is significantly larger than those of 24 meters and over. Nevertheless, he also suggested that SEAFDEC should consider enhancing the understanding and support of the AMSs by advocating the registration of fishing vessels less than 24 meters in length.

38. The Council Director for Indonesia however suggested that the Council should carefully consider again the benefits of expanding the RFVR Database to cover vessels less than 24 meters in length, considering that small-scale fishers usually do not operate very far from the coastal areas. In addition, the expansion of the RFVR to cover smaller vessels would create much burden and in view of its complexity, such effort would require considerable amount of resources from the respective countries to be able to provide the required data compared with the benefits that could be derived from such efforts.

39. With regards to the proposed development of the RFVR Database for vessels less than 24 meters, the Chief of TD informed the Council that there are not many vessels in the size range of 18.0 to 23.9 meters in the region, so the burden of providing the necessary data would therefore be not much. Nevertheless, considering that a large number of such vessels could possibly be engaged in IUU fishing activities, the development of such RFVR would considerably help in enhancing the capability of the AMSs to cope with IUU fishing. In this connection, TD is also planning to incorporate the possible development of RFVR Database for vessels less than 24 meters in the discussion during the Teleworkshop scheduled on 28 August 2020.

40. With regards to the development of the IUU Watchlist, the Council Director for Indonesia suggested that SEAFDEC could consider collaborating with agencies that have already established mechanisms on listing and delisting of IUU fishing vessels, *e.g.* RPOA-IUU. He also suggested that SEAFDEC should collaborate with FAO on the Global Fishing Vessel Record, to reduce the burden of the countries in providing fishing vessels data to both regional and international organizations.

41. The Chief of TD informed the Council that SEAFDEC would collaborate with the RPOA-IUU as it has already established the mechanisms for listing and delisting of IUU fishing vessels that cover almost the same areas as that of SEAFDEC. In addition, SEAFDEC would also collaborate with FAO on the Global Fishing Vessel Record, although the Global Record focuses on vessels with IMO Numbers which could be very limited in the Southeast Asian region. Nonetheless, SEAFDEC had already adjusted the features in the RFVR Database to align with the Global Record by adopting the categories of fishing vessels and fishing gears based on the FAO International Standard Statistical Classification of Fishery Vessels (ISSCFV) and the International Standard Classification of Fishing Gears (ISSCFG).

5.1.3 ASEAN Catch Documentation Scheme

42. The Council took note of the document that summarizes the progress made by TD in the implementation of the ASEAN Catch Documentation Scheme (ACDS) for marine capture fisheries (**Annex 9**), particularly the efforts to pilot test the electronic system of the ACDS (eACDS) in Brunei Darussalam, Viet Nam, Myanmar, and Malaysia, as well as the introduction of eACDS in Cambodia.

43. While providing the updated information on the progress of implementation of the eACDS in Myanmar, the Council Director for Myanmar also mentioned that the required key data elements (KDEs) from the two pilot sites of the country had already been submitted to SEAFDEC in May 2020. Nevertheless, in order to ensure that the application of the electronic format of the ACDS is beneficial to the country, he requested SEAFDEC to provide more capacity building activities on the use of the application for the staff of DOF Myanmar and relevant stakeholders.

44. The Council Director for Indonesia also concurred that the eACDS should serve as a tool not only for preventing the IUU fishing products from entering the supply chain but also for enhancing intra- and international trade of fish and fishery products. Furthermore, the eACDS should also be beneficial for the country that obtained assistance from SEAFDEC, as well as the other countries that have not yet implemented the scheme. He also suggested that the eACDS should also fulfill the requirements of market States so that the AMSs do not need to apply several different schemes in the future.

45. Moreover, the Council Director for Indonesia also informed the Council that Indonesia has adopted the Certificate of Catching Fishes (SHTI) for the country's tuna products to be exported to the European Union (EU), to ensure that all tuna products from Indonesia are free from IUU fishing, while the electronic logbook has been initiated since 2018. In this connection, he sought the possible assistance of SEAFDEC

to ensure that this current scheme being promoted in the country would meet the requirements of the market States such as the EU.

46. The Council Director for Indonesia also shared the information on the recent traceability measures that is being developed by the EU, which is the electronic catch certificate system or the e-Catch, which is paperless and will be applied to countries outside of the EU. The US is also adopting traceability measures through the NOAA Seafood Import Monitoring Programme (SIMP). He therefore requested SEAFDEC to consider harmonizing the eACDS with e-Catch system of EU. Furthermore, he also requested SEAFDEC to provide technical assistance to some AMSs for the improvement of their own traceability systems that are already being applied, such as Indonesia which already applied the key elements of the ACDS at the national level.

47. In response to the query of the Council Director for Indonesia, the Council was assured that all necessary KDEs required by market States, such as the EU and the USA, have been incorporated in the ACDS. In addition, TD has improved the eACDS application to ensure that the relevant authorities of EU and other market States could verify the information throughout the seafood supply chain and the products could be traced back to their sources of origin. Being aware of the electronic catch certificate system or the e-Catch that was recently developed by the EU for some commercial fishery products exported to the EU and which would be introduced to other countries, SEAFDEC would make sure that the eACDS would be harmonized with the requirements of the e-Catch and other traceability systems, as appropriate.

48. Although the eACDS has not yet been implemented in Thailand, the Council Director for Thailand expressed the willingness of the country to be part of this project in order to catch up with the recent status on the eACDS implementation in the region, and at the same time for the country to be kept updated with the recent developments and implementation of the eACDS. Specifically, Thailand is willing to nominate its representatives to participate in relevant fora of SEAFDEC and share the country's experiences, *e.g.* on catch documentation, traceability, and fishery management system.

49. While recognizing that the eACDS serves as effective tool for combating IUU fishing, the Council Director for Japan indicated that the Fisheries Agency of Japan will endeavor to maintain the country's financial support to the eACDS related activities of SEAFDEC. He also suggested that SEAFDEC should also consider seeking other sources of funds to support the wider adoption of the eACDS related activities in the other SEAFDEC Member Countries.

50. TD informed the Council that despite the COVID-19 situation, TD would exert efforts to provide as much as possible, capacity building on the eACDS through meetings and workshops, as well as practical training using the televisual applications. TD also plans to organize a training workshop on ACDS in 2021 to share the information on eACDS and other electronic traceability tools, as well as the recent developments on this aspect, to enhance the capacity of the concerned officers from the AMSs.

5.1.4 Regional Cooperation to Support the Implementation of the Port State Measures in ASEAN Region

51. The Council took note of the progress made by TD in the implementation of the Regional Cooperation to Support the Implementation of the Port State Measures (PSM) in the ASEAN region (**Annex 10**).

52. The Council Director for Japan suggested that SEAFDEC should consider mobilizing the relevant expertise of other organizations, *e.g.* the Indian Ocean Tuna Commission (IOTC), during the conduct of its planned "Regional Technical Consultation on Development and Improvement of Regional Tools for Combating IUU Fishing in Southeast Asia" and training courses on PSM. He also suggested that SEAFDEC should maintain and strengthen its cooperative relationship with FAO in order to support the AMSs in the implementation of the FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA).

53. The Council Director for Thailand also indicated the willingness of Thailand to nominate their representatives as technical persons to participate in meetings, workshops and training programs of

SEAFDEC in order to share with the other AMSs the experiences of Thailand in the implementation of PSM in the country.

54. The Council Director for Indonesia expressed the appreciation to SEAFDEC for extending the capacity building activities to the AMSs through the “Regional Training on Port State Measures Implementation for Inspectors in Southeast Asia” in 2019, and suggested that SEAFDEC should consider providing continued assistance and capacity building to the AMSs in the future. He mentioned that Indonesia has already ratified the PSMA and has designated specific ports to implement the PSMA. In this connection, he encouraged the other AMSs to also ratify the PSMA and enhance collaboration among the AMSs to work together in the implementation of the PSMA in the region. Specifically, he requested SEAFDEC to develop a platform to support the exchange of information among the AMSs regarding the implementation of PSMA, which could include allowing each national focal point of the PSMA to access the RFVR Database.

55. The Council Director for Myanmar also mentioned some relevant activities in his country, *e.g.* training course on port inspection of fishing vessels organized by FAO in collaboration with the Ocean Mind and the Asia-Pacific Fisheries Commission (APFIC) on 2-6 December 2019 in Myanmar, as well as the established cooperation between Myanmar and Thailand to promote the PSM under bilateral agreement between the two countries. He then requested SEAFDEC to provide the opportunity for Myanmar to participate in the future training courses of SEAFDEC on PSM implementation.

56. While noting the comments of the Council Directors for Japan and Indonesia, the Chief of TD expressed the gratitude to Thailand for the willingness to share the country’s experiences with the other AMSs on the implementation of PSM. Moreover, TD would continue to provide assistance to enhance information exchange and capacity building on the implementation of PSM in the AMSs, and maintain cooperative relationship with FAO and other organizations on this aspect. Specifically, the “Teleworkshop on Development and Improvement of Regional Tools for Combating IUU Fishing in Southeast Asia” scheduled in August 2020, would also facilitate exchanging of information and discussion about PSM implementation among the focal points and experts from the AMSs. In addition, TD would organize the “Regional Training on Port State Measures Implementation for Inspectors in Southeast Asia” in 2021 with the cooperation of partners, *e.g.* FAO, NOAA, DOF Thailand.

5.1.5 Regional Plan of Action for Management of Fishing Capacity

57. The Council took note of the progress made by SEAFDEC in developing and supporting the implementation of the Regional Plan of Action for Management of Fishing Capacity (RPOA-Capacity) (**Annex 11**), including the effort of MFRDMD in developing a concept proposal for the project “Implementation and Assessment of Fishing Capacity and Zoning System for Southeast Asia” which was presented to the SEAFDEC Program Committee Meetings (PCM) in 2018 and 2019, however the funding support for this project could not be secured until the present.

58. While noting the progress made by SEAFDEC on the development of the RPOA-Capacity, the Council Director for Thailand suggested that although funding support for the aforementioned project proposal is not yet available at the present, SEAFDEC should include this project in its Pipeline Projects, and explore the prospective donors that could provide the necessary funding support for this project in the future.

59. The Council Director for Indonesia reported on the implementation of the RPOA-Capacity in Indonesia, *i.e.* application of national regulation regarding catch estimation and harvest strategy in Indonesian waters. As for SEAFDEC, he proposed that the activities to be undertaken could emphasize on the assessment of fishing capacity focusing on migratory species, considering that management of fishing capacity for coastal and demersal species should be under the purview of the respective AMSs. Nevertheless, while noting that the implementation of the RPOA-Capacity in the region is limited, he suggested that SEAFDEC should also consider providing assistance for the AMSs to improve and manage fishing capacity in their respective waters.

60. In response to the recommendations of the Council, the Chief of MFRDMD agreed to include the proposal on “Implementation and Assessment of Fishing Capacity and Zoning System for Southeast Asia”

as a Pipeline Project and to explore the prospective funding sources and report any progress on this proposal to the PCM at its next meeting. He also agreed to consider incorporating the suggestions of Indonesia on the management of fishing capacity in the future activities of MFRDMD, subject to financial support from potential donors.

5.2 Regional Cooperation to Promote Sustainable Fisheries and Aquaculture in the ASEAN Region

5.2.1 Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region

61. The Council took note of the progress made by SEAFDEC in supporting the implementation of the Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region (RPOA-Neritic Tunas), and the proposed revision of the Terms of Reference (TOR) of the Scientific Working Group (SWG) for Stock Assessment on Neritic Tunas in the Southeast Asian Region which appears as **Annex 12**.

62. While expressing the support to the revision of the TOR of the SWG to also cover other important pelagic species, the Council Director for Japan expressed the concern that if the revised TOR covers important pelagic fishes as proposed, this could also include the highly migratory fish species and would possibly result in an overlap of the mandate between the SWG and relevant RFMOs, *i.e.* the Indian Ocean Tuna Commission (IOTC) and the Western and Central Pacific Fisheries Commission (WCPFC). Such duplication of works would not only be inappropriate in terms of the effective use of limited financial resources, but also leads to the possibility of creating confusion in the Member Countries if the SWG and the RFMOs come up with different scientific recommendations on the same fish species. He therefore suggested that MFRDMD should strengthen its cooperative relationship and coordination with the IOTC and WCPFC so that the future projects of MFRDMD under the revised TOR would complement with the works of IOTC and WCPFC, and thus avoid any duplication of works.

63. While taking note of the progress of the RPOA-Neritic Tunas and supporting the revised TOR of the SWG, the Council Director for Thailand requested SEAFDEC to explore the possibility of organizing training course(s) on stock assessment of neritic tunas that would also cover the economically important small pelagic species, making use of the stock assessment handbook and software previously developed by SEAFDEC. Moreover, he also expressed the need for enhancing the knowledge on environmental factors that affect the abundance of small pelagic species in the Southeast Asian waters. He also suggested that SEAFDEC should consider accommodating in its relevant projects as appropriate, the improvement and development of fishing gears targeting small pelagic species and post-harvest technologies to reduce the fishing crew onboard fishing vessels.

64. While noting the progress of the promotion of the RPOA-Neritic Tunas, the Council Director for Indonesia reiterated that during the past years MFRDMD in collaboration with the AMSs undertook genetic study of two neritic tuna species, namely longtail tuna (*Thunnus tonggol*) and kawakawa (*Euthynus affinis*). He then suggested that the future works under the RPOA-Neritic Tunas should continue to focus on these two species. On the proposed revision of the TOR of the SWG, he suggested some modifications of the proposed revised TOR, *i.e.*: in Part I on Introduction and Rationale – to change the term “shared stock” to “species”; and in Part II on Scope of Work – to change the term “Southeast Asian waters” to “Southeast Asian region.”

65. The Council Director for Philippines, while supporting the revision of the TOR of the SWG-Neritic Tunas, informed the Meeting that *Mr. Noel Barut*, who was appointed as one of the Standing Members of the SWG, has already retired from the service of the National Fisheries Research and Development Institute (NFRDI). He therefore requested SEAFDEC to remove the name of *Mr. Noel Barut* from the List of Standing Members, and Philippines will further nominate the new person in due course.

66. In response to the recommendations of the Council, the Chief of MFRDMD assured the Council that the preliminary findings on neritic tuna (KAW and LOT) stock assessments based on ASPIC and Kobe Plot Models would be shared with the IOTC and WCPFC. Moreover, MFRDMD in collaboration with the SEAFDEC Secretariat organized a special training on neritic tuna stock and risk assessments in February

2020 at the premises of TD, and would incorporate in its future work, the activities toward enhancing knowledge on environmental factors that affect the abundance of small pelagic species in the Southeast Asian waters. Furthermore, he agreed to continue the activities under the RPOA-Neritic Tunas that focus on longtail tuna and kawakawa, including the genetic study on kawakawa species from AMSs, which is now being undertaken by MFRDMD with support from the JTF.

67. Based on the suggestion of the Council Director for Indonesia, the SEAFDEC Secretariat revised the corrected texts on the TOR of the SWG, and the revised TOR which is shown as **Annex 13** was approved by the Council.

5.2.2 ASEAN Guidelines on Aquatic Emergency Preparedness and Response Systems for Effective Management of Transboundary Disease Outbreak in Southeast Asia

68. The Council was informed of the progress undertaken by AQD on the development of the ASEAN Regional Technical Guidelines on Early Warning System for Aquatic Animal Health Emergencies (**Annex 14**). The Council noted that this Guidelines was endorsed by the by 41st Meeting of the ASEAN Ministers on Agriculture and Forestry (AMAF) held in August 2019.

69. On the follow-up actions after the endorsement of the Guidelines as proposed by AQD, the Council Director for Thailand requested for more detailed information on Phase 2 and Phase 3 of the project since little information had been provided in the document. He also suggested that assessment and follow-up activities should be conducted to monitor the implementation of the Guidelines by the respective the AMSs.

70. The Council Director for Indonesia supported the proposed follow-up actions that include the conduct of workshops where the AMSs could share information and lessons learned on aquatic animal health issues, especially those related to transboundary disease outbreaks in the region.

71. The Council Director for Myanmar expressed the appreciation to AQD for the development of the Guidelines, which could be applied nation-wide by the fish farmers in Myanmar. He added that as Myanmar is importing fish and marine shrimp seeds from neighboring countries, the implementation of the Guidelines would be very helpful in assuring that the imported seeds are of good quality and are disease free. He also expressed the willingness of Myanmar to learn from the other AMSs their experiences in the implementation of the Guidelines in the future.

72. The Council was informed that AQD is currently discussing internally the activities to be undertaken in Phase 2 of the project. The proposal which would include all the necessary details is currently being drafted by AQD, taking into consideration all the comments and suggestions of the Council of Directors.

5.2.3 Proposed Assessment of Aquaculture Research and Development Updates in Southeast Asia

73. The Council took note of the Proposed Assessment of Aquaculture Research and Development Updates in Southeast Asia (**Annex 15**) by AQD. The Council also noted the proposed conduct of the Seminar-Workshop on Aquaculture Development in Southeast Asia (ADSEA) including the objectives and suggested topics as part of AQD's activity from 2020 to 2021.

74. While agreeing to the proposed conduct of the ADSEA Seminar-Workshop, the Council Director for Myanmar also mentioned that the ADSEA would address the requirements for timely assessment and updating of information on aquaculture research and development in Southeast Asia, and for sharing of the information and technologies among the Member Countries.

75. The Council Director for Indonesia also suggested that the ADSEA Seminar-Workshop should come up with the information on the status of aquaculture in each Member Country, and identify the gaps that need to be addressed with respect to the sustainable development of aquaculture in the region.

76. The Council Director for Singapore suggested that as part of the review exercise, AQD should also include a review of the adoption of technologies developed by AQD in the past. Furthermore, in the planning of its future research, AQD should also include the proposed steps and the strategies to facilitate the adoption of such technologies by the aquaculture industry in the region.

77. The Council Director for Japan emphasized the importance of the aquaculture sub-sector that accounted for approximately 55 percent of the world's fishery production, and its importance has been increasing recently. Under such circumstances, he supported that it is timely for AQD to organize the ADSEA Seminar-Workshop for further development of responsible and sustainable aquaculture in Southeast Asia. In this connection, he expressed the willingness of Japan to contribute to the development of sustainable aquaculture in the region through the dispatch of expert(s) to serve as resource persons during the ADSEA Seminar-Workshop.

78. The Council Director for Thailand expressed the view that the proposed conduct of the ADSEA Seminar-Workshop should have been scrutinized by the SEAFDEC Program Committee Meeting prior proposing it to the Council Meeting.

79. AQD expressed the appreciation to the Council for their comments and suggestions which AQD had duly noted, specifically the comments of the Council Director for Thailand. In this regard, AQD will present the details of the seminar-workshop during the next Program Committee Meeting for endorsement.

5.2.4 Progress on Regional Guidelines on Cold Chain Management for Seafood

80. The Council was informed of the progress undertaken by MFRD in the development of the Regional Guidelines on Cold Chain Management for Fisheries and Fishery Products in the ASEAN Region (**Annex 16**), and that the Guidelines was endorsed by the by 41st Meeting of the ASEAN Ministers on Agriculture and Forestry (AMAF) held in August 2019. The Council also noted that in order to follow-up the adoption of the Guidelines, the activity to support information sharing on the implementation of the Guidelines was proposed as part of the new "ASEAN-JICA Food Value Chain Project."

81. The Council Director for Myanmar expressed the country's willingness to adopt the Guidelines through the conduct of training on cold chain management to build up the capacity of the country's relevant public and private sectors. He therefore requested MFRD to continue supporting Myanmar toward the implementation of the cold chain management for seafood in the future.

82. The Council Director for Japan expressed the support to the proposed activity under the ASEAN-JICA Food Value Chain Project considering that this would help in facilitating information sharing among the AMSs on the implementation of the Guidelines.

83. While expressing the support to the ASEAN-JICA Food Value Chain Project considering that this would facilitate the implementation of the Guidelines by the AMSs, the Council Director for Indonesia offered Indonesia as a study case to implement the Guidelines, especially for products that are produced from small-scale fisheries.

84. The Council Director for Thailand requested SEAFDEC to provide more detailed information once it is available, on the document on the ASEAN-JICA Food Value Chain for further consideration by the Member Countries. He also expressed the willingness of Thailand to share its experiences on the implementation of the Guidelines during the relevant activities to be conducted by SEAFDEC in the future.

5.2.5 Regional Action Plan for Management of Transboundary Species: Indo-pacific Mackerel in the Gulf of Thailand Sub-region

85. After noting the progress on the development of the Regional Action Plan (RAP) for Management of Transboundary Species: Indo-Pacific Mackerel in the Gulf of Thailand Sub-region (**Annex 17**), the Council approved and endorsed the RAP for submission to the ASEAN mechanism for consideration and support.

86. The Council Director for Thailand expressed the view that the RAP would be beneficial to AMSs, especially for Thailand, as this comprises the most appropriate tool that takes into account the legal frameworks, social, and environmental aspects in management of transboundary species in the Gulf of Thailand.

5.3 Other Matters

5.3.1 Project Concept Note: Enhance Healthy Ocean Ecosystems through the Best Practice in Trawl Fisheries and Innovation

87. The Council was informed of the proposed Project Concept Note on Enhanced Healthy Ocean Ecosystems through the Best Practice in Trawl Fisheries and Innovation (**Annex 18**), which was prepared by SEAFDEC for possible funding from the Green Climate Funds (GCF) and/or Global Environment Facilities (GEF) through the support of the UNEP.

88. The Council Director for Indonesia recalled that the previous project under the collaboration between FAO/GEF and SEAFDEC on the “Strategies for Trawl Fisheries By-catch Management” or REBYC-II CTI also focused on trawl fisheries. He cited that Indonesia is banning the utilization of trawls in all fisheries activities due to its drastic impact to the aquatic habitat and the environment. He therefore expressed some concerns about this new project and requested for more time to carefully consider this Concept Note, to be able to provide the country’s feedback on this matter.

89. The Council Director for Japan cited the Agreement Establishing the Southeast Fisheries Development Center (Article 13) stating that “The Center may, by a two-thirds majority vote of the total number of the Directors of the Council, receive assistance from governments and organizations external to the Center as well as other international organizations...” He therefore suggested that after the full project document is prepared, approval by the SEAFDEC Council in accordance with Article 13 is required. Nevertheless, as the full project document will probably contain technical aspects that need further explanation from the SEAFDEC Secretariat, he also suggested that this matter should be discussed and decided at an annual Council Meeting rather than through *ad referendum* vote of the Council.

90. After reviewing the Concept Note, the Council Director for Myanmar suggested that both single and multi-species management should be considered under the Concept Note, through the development and promotion of appropriate technical measures.

91. SEAFDEC assured the Council that once the full proposal of this project is available, SEAFDEC would seek the comments of the SEAFDEC Program Committee and approval of the Council in accordance with Article 13 of the Agreement Establishing the Southeast Fisheries Development Center. Furthermore, the suggestions of the Council would be considered in finalizing the project proposal, as appropriate.

5.3.2 Project Concept Note: Ocean Relief through Seaweed Aquaculture

92. The Council was informed that in the Project Concept Note on Ocean Relief through Seaweed Aquaculture (**Annex 19**) developed by the World Wildlife Fund-US (WWF-US) for possible funding support from GEF Trust Fund, SEAFDEC was asked to be involved in the project implementation as two target participating countries, namely: the Philippines and Viet Nam are its Member Countries. The Council also noted that this proposal is still subject to further discussion between SEAFDEC and the WWF-US.

93. The Council Director for Myanmar expressed the strong support to this Project Concept Note considering that Myanmar is located in the tropical region and possesses very good environment to farm seaweeds. Specifically, he requested for the possibility of including Myanmar in the regional capacity building on seaweed aquaculture. Furthermore, he also indicated that through this Project, Myanmar could acquire reliable technologies and experience in seaweeds culture, and support the local farmers of Myanmar by sharing of the project outcomes.

94. While expressing full support to the Project Concept Note, the Council Director for Indonesia suggested that all AMSs should be involved in the project activities.

95. The Council was informed that SEAFDEC would consult with WWF-US on the possibility of disseminating the results of the project implementation in two pilot countries, to the other AMSs.

5.3.3 Project Concept Note: Regional Collaborative Research and Capacity Building for Monitoring and Reducing Marine Debris from Fisheries in Southeast Asia

96. The Council reviewed the Project Concept Note on Regional Collaborative Research and Capacity Building for Monitoring and Reducing Marine Debris from Fisheries in Southeast Asia (**Annex 20**) which was developed by SEAFDEC for possible funding support from the Japan-ASEAN Integration Fund (JAIF).

97. The Council Director for Japan expressed the view that addressing the issues on marine debris is important considering that the Asia-Pacific Economic Cooperation (APEC) during its Third Senior Officials' Meeting in August 2019 already adopted the APEC Roadmap on Marine Debris, and that SEAFDEC should continue working with the potential donors on this aspect. Specifically on the proposed project activity 4-1 "Development of methods on marking of fishing gears and promotion on marking of fishing gears," he mentioned that as FAO already produced in 2018 the Voluntary Guidelines on the Marking of Fishing Gear, the implementation of this activity by SEAFDEC should be with a view to combating, minimizing and eliminating the occurrence of abandoned, lost or otherwise discarded fishing gear (ALDFG) and in a manner that is consistent with the FAO Voluntary Guidelines.

98. SEAFDEC assured the Council that this project would be developed in harmony with the ASEAN Framework of Action on Marine Debris and that any duplication with the FAO initiatives would be avoided. TD also informed the Council that with the collaboration of MFRDMD, research studies that stem from the pilot study of FAO on testing the means and methods of marking various fishing gear in accordance with the FAO Voluntary Guidelines, would be carried out by TD. Moreover, TD would also collaborate with the Fishing Operations and Technology Branch (FIAO) of FAO to ensure that the activities under this project would be consistent with the FAO Voluntary Guidelines, and that TD plans to simplify the Voluntary Guidelines into a user-friendly manual to facilitate its implementation in the AMSs.

99. With regard to marine debris, the Council Director for Indonesia shared the view that there are three components that need to be addressed in this activity, namely: marine plastics; abandoned, lost or otherwise discarded fishing gear; and land waste in fishing ports.

100. The Council Director for Myanmar also shared the view with respect to the Project's Component 2 "Research, Innovation and Capacity Building" that the activities should aim not only to evaluate the microplastics but also map the occurrence of microplastics at sea in different parts of the region, as well as describe the associated neustonic communities in order to understand the presence of microplastic particles with plankton in filter feeders. Specifically, he also suggested that an investigation of the ratio of microplastics to zooplankton in the neustonic micro-layer of the waters in the region is necessary and thus should also be included as part of the activities. Furthermore, the standard techniques should also be improved to ensure that the data to be collected from the Southeast Asian countries in the future, are comparable.

101. In response to the query of the Council Director for Myanmar, TD assured the Council that the scientific study on microplastics would include among others, mapping of the occurrence of microplastics at sea in different parts of the region, analysis of the microplastic particles with plankton in filter feeders, and determining of the ratio of microplastics to zooplankton in the neustonic micro-layer of the waters. In addition, the development of standard techniques for microplastic surveys would be considered by the regional network of microplastic experts through appropriate platform.

5.3.4 Project Concept Note: SEAFDEC Capacity Development through USAID Sustainable Fish Asia Activity

102. The Council was informed of the Project Concept Note on SEAFDEC Capacity Development through USAID Sustainable Fish Asia Activity (**Annex 21**) with the USAID as prospective funding source. This Concept Note is part of the USAID Sustainable Fish Asia (USAID SuFIA) Support Program, and has

the objective of providing SEAFDEC with organizational development, institutional capacity building, and further strengthening of the organization's role as regional fisheries platform to carry on international fisheries development projects, policies, and activities.

103. The Council Director for Indonesia expressed the view that SEAFDEC could take this project as an opportunity to improve human resources in the SEAFDEC Departments.

5.3.5 Others

104. The Council Director for Indonesia suggested that SEAFDEC should consider formulating new projects related to the adaptations carried out by the region's small-scale fisheries in response to the impacts of the COVID-19 pandemic.

VI. COOPERATION WITH INTERNATIONAL/REGIONAL ORGANIZATIONS AND NON-MEMBER GOVERNMENTS

105. The Council noted the Statement of the Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific (FAO/RAP) (**Annex 22**), in which the issue on COVID-19 pandemic was raised as this has severely affected the food security and livelihoods of millions of people in the fisheries and aquaculture supply chain in Asia, creating much impact on the fisheries sector. As several measures had been established to manage the pandemic, FAO encouraged SEAFDEC to advocate among its Member Countries so that the fisheries and aquaculture sector would not be left behind in availing of the relevant relief and assistance schemes. The Council also took note of the two important areas of cooperation between SEAFDEC and FAO in the near future, *i.e.* SEAFDEC serving as executing partner for the BOBLME II and GoTFish Projects of FAO, and SEAFDEC supporting the implementation of the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) in the region. The Council also acknowledged the wish of FAO for SEAFDEC to affirm its commitment as a longstanding partner in supporting the welfare of its Member Countries in the Southeast Asian region.

106. The Council also noted the Statement of the Mekong River Commission (MRC) (**Annex 23**) which reiterated the past cooperation between SEAFDEC and MRC through the MOU signed in 2017, particularly on the development of a Project-Based Action Plan (PBAP) for implementing the Basin-wide Fisheries Management and Development Strategy (BFMS). Subsequently a series of the PBAP were developed and finalized for endorsement by the MRC Joint Committee in 2020. The MRC has also started to develop technical guidelines for transboundary fisheries management, and for restoring and enhancing fish stocks in key important habitats to secure ecological health system along transboundary areas in the Mekong River Basin, and is also updating its 20-year old fisheries monitoring programmes. The Council also recognized that BFMS and its PBAP are regional cooperation frameworks that aim to facilitate, support, and strengthen coordination and collaboration among the MRC, SEAFDEC and other relevant regional and international organizations for sustainable inland fisheries and aquatic resources development and management in the Mekong River Basin.

107. While expressing the gratitude to SEAFDEC for its efforts in promoting sustainable fisheries and aquaculture development in the region through the collaborative arrangements with various international/regional organizations and non-member governments, the Council Director for Myanmar reiterated that such collaboration is necessary as it has significantly contributed to the region's fisheries sector development, through the delivery of the suitable practices and modes developed by those organizations and non-member Governments as well as works and experiences, and financial support.

VII. OTHER MATTERS

7.1 Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030

108. The representative from the SEAFDEC Secretariat informed the Council on the progress made by the SEAFDEC Secretariat with support from the Member Countries, in revising the Resolution and Plan of

Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 (RES&POA-2020) and in coming up with the 5th draft of the Resolution and Plan of Action Towards 2030 (RES&POA-2030), including the timeline for submission of the document to the ASEAN mechanism (**Annex 24**).

109. The Council Director for Thailand expressed his support to the draft RES&POA-2030 as this would serve as a framework for the development of programs, projects and activities for sustainable fisheries for food security towards 2030. He also emphasized that since the RES&POA-2030 touches upon a number of regional and international frameworks related to sustainable fisheries, climate change, as well as on human well-being, livelihood and welfare, implementation of the activities in line with the RES&POA-2030 would be beneficial for the AMSs to achieve its goal while moving together towards 2030.

110. While also expressing support to the adoption of the RES&POA-2030 as it would serve as important guidance for long-term fisheries development in the region, the Council Director for Indonesia commended the SEAFDEC Secretariat for exerting significant efforts to come up with the final version of the RES&POA-2030 after a series of consultations with the Member Countries. He added that the adopted RES&POA-2030 would ensure that relevant activities would be implemented by the respective Member Countries for the sustainability of fisheries in the region.

111. After the discussion, the Council endorsed the 5th draft of the RES&POA-2030 for subsequent submission to the ASEAN mechanism.

7.2 Preparation of Southeast Asian State of Fisheries and Aquaculture (SEASOFIA) 2022

112. While noting the proposal of the SEAFDEC Secretariat related to the preparation of the Southeast Asian State of Fisheries and Aquaculture (SEASOFIA 2022) which appears as **Annex 25**, the Council also supported the proposed frequency of production of future SEASOFIA which is every 5 years.

113. After expressing the support to the preparation of SEASOFIA 2022, the Council Director for Japan requested SEAFDEC to consider minimizing the cost of production and enhancing the dissemination through electronic format. In addition, he suggested that two (2) topics could be included in this current publication, namely: 1) Damages caused by COVID-19 on fisheries industries (including fish processing industries) in the Southeast Asian region; and 2) Policies of the ASEAN Member States in coping up and recovering from the damages. Moreover, if it is preferred that the future SEASOFIA would be published more frequently than every 5 years, he suggested that SEAFDEC should consider conducting a survey on the utilization the SEASOFIA and submit the results of the said survey to the 53rd Meeting of the SEAFDEC Council.

114. On the frequency of production of future SEASOFIA, the Council Director for Thailand supported the suggestion that the future SEASOFIA should be produced every 5 years and should be published both as hard copy and in electronic format, and should be accessible through the SEAFDEC website.

115. The Council Director for Indonesia expressed the view that since SEASOFIA will be produced every 5 years, SEAFDEC should ensure that the data and information in the publication are harmonized with the State of Fisheries and Aquaculture (SOFIA) which is produced by FAO every two years. He also asked SEAFDEC to circulate the draft of SEASOFIA 2022 to the Member Countries for consideration prior to its final printing.

116. The Council Director for Myanmar commended SEAFDEC for coming up with the SEASOFIA as it has provided good reference, especially in terms of the historical status of fisheries in the region. Such information could be used to support the formulation of the next 5-year Strategic Action Plan (SAP), and specific Annual Work Plan (AWP) under the respective priority areas.

7.3 Revision of Regional Framework for Fishery Statistics of Southeast Asia

117. The Council took note and approved the proposed plan for revising the Regional Framework for Fishery Statistics of Southeast Asia (**Annex 26**), as submitted by the SEAFDEC Secretariat.

118. While expressing the appreciation to SEAFDEC for its efforts in compiling the fishery data and statistics of the Southeast Asian region, the Council Director for Japan shared the view that the accuracy and timeliness of data could be challenging. He therefore expressed the hope that the revision of the Framework would lead to improved utilization of the fishery statistics in the AMSs.

VIII. FUTURE DIRECTION OF SEAFDEC

119. With regards to Agenda 8 on the Future Direction of SEAFDEC, the Council agreed that items of discussion among the Council Directors and the Secretary-General under this Agenda are very important and should be confirmed in advance before having another teleconference session. In addition, considering the limited time for preparing such session and the issues that need to be discussed prior to the timeline for the adoption of the Report of the 52nd Meeting of the SEAFDEC Council, the Council suggested that such discussion could be conducted separately as a Special Meeting of the SEAFDEC Council tentatively in August or September 2020. In this connection, the Chairperson requested the SEAFDEC Secretariat to communicate with the Council Directors to provide their respective proposal on important issues including brief description on the issues, and prepare the Agenda of the Special Meeting to facilitate advance preparation of the Council.

IX. MANAGEMENT OF THE CENTER

9.1 Operation of SEAFDEC Training and Research Vessels

120. The Council was informed of the Operation of the SEAFDEC Training and Research Vessels in 2019 and the proposed plans for the year 2020 (**Annex 27**), as well as the results of the review of the countries' interests in conducting their respective fishery resources surveys during 2020-2023 using the SEAFDEC vessels, which was reported by the representative from the SEAFDEC Training Department (TD).

121. While expressing the appreciation to TD for its efforts in maximizing the utilization of the two vessels, the Council Director for Japan raised the concern regarding the low operational days at sea of these vessels during the recent years. Nevertheless, considering that the facilities and equipment of the M.V. SEAFDEC 2 had been improved in 2019 with the support from the Japan International Cooperation Agency (JICA), he encouraged the other Member Countries to consider maximizing the operational utilization of the M.V. SEAFDEC 2 in the future, in order that the Government of Japan would also consider continuing its support to the activities that involve the utilization of the vessels.

122. The Council Director for the Philippines commended SEAFDEC for considering the request of the Philippines during the 42PCM, to use the M.V. SEAFDEC 2 for hydroacoustic survey of small pelagic fishing grounds in Philippine waters in 2020. Nevertheless, as the implementation of such survey is being confronted with difficulties due to the COVID-19 situation necessitating its postponement, it was therefore proposed that the Philippines would pursue the utilization of the M.V. SEAFDEC 2 in 2021 once the situation has improved.

123. While also noting the utilization of the M.V. SEAFDEC 2 in 2019 and the proposed plan for 2020, the Council Director for Viet Nam explained that although Viet Nam has already sent an official request to SEAFDEC for supporting the conduct of a national survey of large pelagic and demersal species in the country's waters, and that the technical cooperation discussion had already been convened between the technical staff of the Research Institute for Marine Fisheries (RIMF) of Viet Nam and TD for such a plan, the possibility of adjusting the plan might be necessary depending on the policy of the Government of Viet Nam towards bracing the impact of the COVID-19 crisis.

124. The Chief of MFRDMD recognized the need to conduct pelagic fishery resources surveys in the respective waters of the Member Countries as indicated in the results of the review of the countries' interest in the conduct of fishery resources surveys during 2020-2023. However, he suggested that the SEAFDEC vessels should be equipped with proper equipment, particularly the scientific echo sounder, which is necessary for the conduct of such surveys. Although the representative from TD explained that in 2019, TD tested the set of scientific equipment onboard M.V. SEAFDEC 2 (Simrad eco-sounder model EK60 of the

Department of Fisheries (DOF) of Thailand connected with the transducer of RIMF of Viet Nam), the result of which showed that the CPU system of the echo sounder of DOF Thailand is compatible and could be linked with transducer of RIMF Viet Nam; the Chief of MFRDMD continued to propose that TD should consider acquiring its own scientific equipment for installation in the SEAFDEC vessels in the future.

125. After the deliberation, the Council approved the proposed operational plan of the M.V. SEAFDEC 2 for the year 2020 with a note that the proposed plan might be adjusted in accordance with the respective policies of the AMSs in addressing the COVID-19 situation.

9.2 Collaborative Arrangements between SEAFDEC and Other Organizations

126. The Council noted the collaborative arrangements which were signed between SEAFDEC and other international/organizations, donors, and agencies of non-Member Countries during the period after the Fifty-first Meeting until this Fifty-second Meeting of the SEAFDEC Council (**Annex 28**).

127. The Council Director for Indonesia expressed the hope that the existing arrangements between SEAFDEC and other organizations would provide benefits to the Member Countries, including the aspects of capacity improvement, and in raising the awareness toward sustainable fisheries.

9.3 Procedures for Establishment of Cooperation between SEAFDEC and Other Organizations

128. The Council took note of the proposed Procedures for Establishment of Cooperation between SEAFDEC and Other Organizations (**Annex 29**) as prepared by the Secretariat.

129. The Council Director for Singapore suggested that approval of the Council should be required for the extension and renewal of arrangements between SEAFDEC and other organizations even if there are no changes in the circumstances and in the nature of the cooperation. This is to allow the Council to determine whether such projects are still relevant or changes in the scope would be required to better serve the purpose of SEAFDEC.

130. In this regard, the Council Director for Indonesia suggested that all cooperation between SEAFDEC and other organizations should be communicated with the Council Directors for appropriate direction and approval.

131. With regards to the suggestion of the Council Director for Singapore that SEAFDEC should seek prior approval of the Council for extension and renewal of arrangements, the SEAFDEC Secretariat informed the Council that, in the future, the list of arrangements that will be extended and renewed in the coming years without any change in the activities or nature of the arrangements, would be compiled by the SEAFDEC Secretariat for approval of the Council which would be sought at its forthcoming annual meetings. Nevertheless, as the new text for some of the arrangements might not yet be available during the annual meetings of the Council, the SEAFDEC Secretariat would provide a copy of the current arrangements for information of the Council. Nonetheless, once these arrangements are signed, the SEAFDEC Secretariat will send a copy of the signed arrangements to the Council Directors for their information.

132. Taking into consideration the aforementioned recommendations, the SEAFDEC Secretariat revised the Procedures for Establishment of Cooperation between SEAFDEC and Other Organizations, and the revised Procedures shown in **Annex 30** was approved by the Council.

9.4 Monitoring the Implementation of Gender Strategy

133. The Council noted the progress made by the SEAFDEC Secretariat and Departments in the implementation of the Gender Strategy in 2019 (**Annex 31**).

134. The Council Director for Japan suggested that the SEAFDEC Secretariat should consider providing the report of the progress in the implementation of the Gender Strategy at each annual meeting of the SEAFDEC Council in the future. This would facilitate better understanding of the Member Countries on the importance of this matter.

135. In response to the suggestion of the Council Director for Japan, the Secretariat assured the Council that the progress in the implementation of the Gender Strategy would be accommodated in the SEAFDEC Annual Report and in the future reports under the Agenda on Report of the Secretary-General at each annual meeting of the Council.

136. While acknowledging the progress of the implementation of SEAFDEC Gender Strategy, the Council Director for Indonesia mentioned that Indonesia has also been implementing the gender strategy in the fisheries sector through the increased involvement of women in the upstream and downstream sectors.

137. The Council Director for Myanmar shared the view that the country's Gender Strategy will be developed in the future, especially mainstreaming it in the research programs for developing fisheries technologies, farming systems, and policies, to support the role of rural women in improving fisheries productivity and their livelihoods. Moreover, incorporating in these efforts are the steps to assess and analyze gender inequalities and needs, collection of information and disaggregated data on the target groups, identification of the existing gender inequalities and their underlying causes, direct consultations with the target groups, and drawing of conclusions and additional resources, will also be considered to form part of the strategies.

9.5 Outlines of 5-Year Achievement of IFRDMD

138. The Council took note of the 5-Year Achievement of IFRDMD (**Annex 32**) which was reflected through its two regional projects and concluded during the Workshop on 5-year of IFRDMD's Achievement organized in 2019. The Workshop also identified the challenges or key recommendations for consideration during the planning of the future projects and activities of IFRDMD.

139. The Council Director for Indonesia encouraged IFRDMD to continue improving the region's capacity in research and data collection on inland fisheries, especially for the tropical anguillid eel which has high economic potentials.

140. While conforming to the validity of the key challenges and recommendations described in the document, the Council Director for Japan encouraged IFRDMD to address such challenges in an appropriate manner. He also emphasized that the role of IFRDMD in the sustainable development of inland fisheries has been increasingly important considering that the amount of the world's catch from freshwater has been increasing since 2014.

141. The Council Director for Myanmar expressed the gratitude to the Government of Indonesia for hosting IFRDMD, and to the personalities involved in the establishment and operation of IFRDMD to support inland fisheries development and its sustainability. He also mentioned that Myanmar is one of the countries endowed with the vast inland fisheries areas that support the livelihood and food security of fisheries dependent communities. He therefore looked forward to enhancing its close collaboration with IFRDMD for the sustainable development of inland fisheries in Myanmar, specifically in terms of reflecting in the planning process of IFRDMD, the need to improve the capacity of Myanmar in inland fisheries species identification and composition as well as in enhancing the data collection systems in inland fisheries of Myanmar in the future.

9.6 SEAFDEC Regional Fisheries Policy Network (RFPN)

142. The Council was informed of the proposed adjustment of the number and the timeframes of the Regional Fisheries Policy Network (RFPN) in 2021, and the proposed adjustment of the scopes of work for the RFPN Members in the year 2022 and onwards (**Annex 33**) as raised by the SEAFDEC Secretariat.

143. With regard to the proposed adjustment of the number of RFPN members in 2021, which should cover 8 countries and to be seconded to the SEAFDEC Secretariat for 6 months, although the Council approved such proposed adjustment, the Council Director for Thailand shared the view that this practice should only be for certain periods of time when funding is insufficient. He suggested that SEAFDEC should consider enhancing its efforts in securing funds to support the full RFPN members for one-year period

assignment, as originally practiced in order that close networking among the Southeast Asian countries could be fostered.

144. The Council Director for Indonesia supported the continuation of the RFPN program as this is beneficial in facilitating the effective and smooth implementation of the SEAFDEC programs, while also supporting the human resources development for the SEAFDEC Member Countries. He also proposed that the secondment of RFPN members should be for a period of 1 year, as a 6-month period secondment is inadequate.

145. The Council Director for Myanmar while agreeing with the proposed revision of the framework of the RFPN (2022 and onward), shared the view that the 6-month secondment of RFPN would not be sufficient for the RFPN Members to gain knowledge and experience. He added that SEAFDEC should consider looking for potential donors to support the RFPN program in order that this could be continued with 8-country representation on 1-year basis as originally practiced.

146. On the proposed adjustment of the RFPN frameworks for 2022 and onwards, the Council Director for Thailand expressed the view that the role of the RFPN members should be focused on regional policy matters and that they should be stationed at SEAFDEC Secretariat. As for their capacity building on technical fisheries matters at any technical department of SEAFDEC, this could be undertaken through other appropriate mechanism, *e.g.* tailor-made training, etc.

147. While requesting the SEAFDEC Secretariat to provide a more concrete picture of the adjustment of scope of works for the RFPN members in the year 2022 and onward, the Council Director for Japan also suggested that the SEAFDEC Secretariat should consider preparing a draft revision of the Terms of Reference of the RFPN for consideration by the Council at its 53rd Meeting, and on such revision the Council could make the necessary decision.

148. In response to the suggestion of the Council on the proposed revision of the framework for RFPN for 2022 and onwards, the SEAFDEC Secretariat agreed to develop the draft revision of the Terms of Reference of the RFPN for consideration by the Council at its 53rd Meeting, and would consult with the prospective donors, *e.g.* Japanese Trust Fund and others, to seek their consideration on the possibility of accommodating the full members of RFPN under their respective programs, as appropriate.

X. FINANCIAL MATTERS

10.1 Adoption of Audited Financial Report for the Year 2018

149. In accordance with Article 6, Paragraph 2 (ii) of the Agreement Establishing the Center, the Council approved the Audited Consolidated Financial Statements of the Center for the year ended 31 December 2018 including that of the Secretariat and the four Departments for the Year 2018 (**Annex 34**) as audited by the official auditors of the Center, Mr. Pongsakorn Suwansaksin from P. Polymaths Auditing Co., Ltd., Thailand.

10.2 Un-audited Financial Report for the Year 2019, and Status of the Financial Situation for the Year 2020

150. The Council took note of the Un-audited Consolidated Financial Report for the Year 2019 (**Annex 35**), which comprised the Un-audited Balance Sheet as of 31 December 2019, the Un-audited Statements of Income and Expenditures for the Year 2019, and the Un-audited Fund Balances as of 31 December 2019.

151. The Council Director for Japan confirmed the commitment of the Government of Japan to contribute the budget of 1,830,357 USD in 2021 as Japanese Trust Fund (JTF) allocation to SEAFDEC, the amount of which is the same as that allocated for 2020. He also gave the assurance that Japan would continue its financial support to SEAFDEC activities through the JTF in 2022 and thereafter.

152. The Council Director for Indonesia suggested that due to the COVID-19 situation which resulted in limitations of in-person activities in 2020, SEAFDEC should consider reformulating its budgetary requirements in 2020.

153. SEAFDEC informed the Council that the budgetary requirements in 2020 was prepared by SEAFDEC Secretariat and Departments based on the programs of activities approved by the 42nd Meeting of PCM in 2019. Nevertheless, the actual budget utilization corresponding to the activities in 2020 would be recorded in the Financial Report for consideration during the forthcoming Council Meeting.

10.3 Proposed Budgetary Requirements of the Center for the Year 2020

154. The Council approved the proposed budgetary requirements of the Center for the Year 2020 as shown in **Annex 36**. Subsequently, the SEAFDEC Secretary-General expressed the gratitude of SEAFDEC to the Council for endorsing the proposed budgetary requirements of the Center for the Year 2021.

XI. OTHERS

155. Considering that the current COVID-19 pandemic poses the need for SEAFDEC to conduct its activities, such as consultations, workshops, trainings, etc. through teleconference or televisual facilities, the Council Director for Indonesia suggested that the SEAFDEC Secretariat should consider formulating appropriate protocols that could serve as reference for the conduct of such activities in the future, as necessary.

156. The Council Director for Indonesia also expressed the concern over the situation brought about by the COVID-19 pandemic which could possibly impact on the workplan of SEAFDEC in 2020. In this regard, he requested the SEAFDEC Secretariat and Departments to identify the activities that could be conducted virtually and those that need to be conducted in-person, as well as to explore new mechanisms and systems of conducting the activities during the pandemic situation, as appropriate.

157. In response to the concern of the Council Director for Indonesia, SEAFDEC assured the Council that the workplan of the SEAFDEC Secretariat and Departments in 2020 would be adjusted, including the mode of conducting the activities, *i.e.* virtually or in-person, where applicable.

158. The Council Director for Myanmar expressed the support of Myanmar to SEAFDEC for conducting the Fifty-second Meeting of the SEAFDEC Council through teleconference as this has become necessary when the region is being confronted with the COVID-19 in 2020, and which for that matter could also be adopted in case similar disease outbreaks occur in the future. However, when the situation would have already improved, SEAFDEC should consider continuing with the usual practice of organizing the Council Meeting with the actual participation of the Council Directors considering that the SEAFDEC Council Meeting is one of the most important events for sharing and discussing the important and emerging issues of fisheries in the region.

XII. CONCLUDING MATTERS

12.1 Adoption of the Meeting Report

159. The SEAFDEC Secretariat consolidated the views and directives of the SEAFDEC Council given through the Teleconference and *Ad Referendum Sessions* into the Report of the 52nd Meeting of the SEAFDEC Council, which was adopted by the Council *ad referendum*.

12.2 Date and Venue of the Fifty-third Meeting of the Council

160. In considering the date and venue of the Fifty-third Meeting of the Council, the SEAFDEC Alternate Council Director for Lao PDR, *Mr. Chanthaboun Sirimanotham* on behalf of the Council Director for Lao PDR informed the Council that the Government of Lao PDR would accept the responsibility of hosting the next Council Meeting in Lao PDR in 2021.

161. The Council expressed the appreciation for the offer of Lao PDR to host the next Council Meeting in Lao PDR, and requested the Secretary-General to discuss with the Council Director for Lao PDR the exact date and venue of the next meeting of the SEAFDEC Council.

XIII. CLOSING OF THE MEETING

162. The Chairperson expressed the appreciation to the SEAFDEC Council of Directors for their active participation during the Teleconference and *Ad referendum sessions* of the Fifty-second Meeting of the SEAFDEC Council. He also thanked the SEAFDEC Secretariat and Departments for the cooperation and arrangements for the Meeting despite various limitations. While recognizing that this year's Council Meeting was very challenging due to the coronavirus pandemic, he commended the SEAFDEC Secretariat for successfully reconciling the different views expressed by the Council of Directors during the live-streaming session as well as those sent via e-mail. After commending SEAFDEC for the success of the Fifty-second Meeting of the SEAFDEC Council, he declared the Meeting closed.

Annex 1

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OPENING REMARKS

By Prof. Sjarief Widjaja

*Chairman for the Agency of Marine and Fisheries Research and Human Resources of Indonesia
and SEAFDEC Alternate Council Director for Indonesia*

Her Excellency, *Mrs Malinee Smithrithee*, Secretary General of SEAFDEC,
Your Excellencies SEAFDEC Council Directors,
Esteemed Chief of SEAFDEC Departments,
SEAFDEC Secretariat,
SEAFDEC Member Countries delegates,
Ladies and Gentlemen,

Good morning,

I am pleased to welcome you all at the 52nd Council Directors Meeting which sadly must be organized online as we are unable to meet in person for the first time in over fifty years. Indeed, this is a trying time for all countries in the world as we struggle to cope with a pandemic of an unprecedented scale in the last 100 years. The Covid 19 poses not only health crises but also social and economic crises as people are forced to leave their jobs and normal lives into quarantine. Therefore, our collaboration through SEAFDEC has become even more important than ever to help our fishery industry and community recover from the devastating impact of the Covid-19.

Ladies and gentlemen,

For over 50 years SEAFDEC has sustained its support in delivering the sustainable development of fisheries among Member Countries in the South East Asia and the surrounding region. All our collective efforts in capacity building, research, and development, as well as engagement with stakeholders, regionally and globally, have been crucial to better improve our management of fisheries resources for the benefits of community today and in the future.

I would like to take this opportunity to highlight some significant achievement of our implemented activities in 2019 facilitated by SEAFDEC. There are 36 projects in total which categorized into 1) Program under Fisheries Consultative Group ASEAN-SEAFDEC Strategic Partnership (23 Projects), 2) Departmental Programs (12 Projects), and 3) Other program (1 Project). These all activity are aligned with SEAFDEC Strategies Towards 2030 which has been adopted by the Council in 2017.

Throughout 2019, SEAFDEC continued to support ASEAN Member States in sustainable fisheries management which among other things, includes improvement of Member Countries governance and capacity to combat IUU Fishing. Also, in 2019, SEAFDEC has adopted the SEAFDEC Gender Strategy in Fisheries Sector. We understand the central role of woman in fisheries sector from upstream to downstream. Indonesia particularly has seen woman participation in a wide range of fishing activities as well as processing activities. Therefore, it is crucial to provide framework to encourage more equitable participation in fisheries sectors. However, the effect of this strategy can only be significantly felt if it is implemented continuedly by all Member Countries.

Excellencies, Distinguished Delegates, Ladies and Gentlemen,

As we all are aware that the framework and mandate of SEAFDEC is to promote the sustainable development of fisheries in our region that will improve the livelihood dependent to fisheries resources. As the member of community and policy maker, we have the same concern on several un-responsible practices that still being implemented and damage the sustainability of our fisheries resources. On this matter, I would like to reiterate that SEAFDEC cooperation, partnership and consultation with international and regional organizations, national agencies of the Member Countries, as well as non-member governments are becoming increasingly more important. SEAFDEC needs to work harder in informing guidelines and recommendation to all fishery



related parties including educating private sectors to fully comply with the national and global fisheries best practices regulations, to ensure the achievement of not only sustainable fisheries but also the protection our fisherman and those working in fishing industry from illegal and inhumane practices. Only then we can claim that our hard work is contributing to the people prosperity in the southeast asian region.

Lastly, on behalf of the Government of Indonesia, I would like to close this report by thanking all Member Countries and SEAFDEC Secretariat for the sustained support and commitment. It has been an honor to hold the chairmanship for the period of 2019-2020 and I hope despite our not being able to see each other in person this year, we will continue to work even closer because SEAFDEC role will be more central in the region especially in midst of our effort to help fishery community recuperate from this global ordeal.

Thank you.

Annex 3

REMARKS

By Mr. Shingo Ota

*Councilor of Resource Management Department, Fisheries Agency, Ministry of Agriculture,
Forestry and Fisheries and Chairperson of SEAFDEC Council for the Year 2019-2020*

Thank you for nominating me for the Chair of the 52nd Council Meeting.
I would like to give a few remarks as the Chair as well as the Council Director for Japan.

My Colleagues SEAFDEC Council Directors,
Delegates from the SEAFDEC Member Countries,
SEAFDEC Secretary-General,
Officials from SEAFDEC Secretariat and Departments,

It is my great honor to chair the SEAFDEC Council meeting.

Let me begin by expressing my deepest condolences to the victims of coronavirus and their families. Also, I would like to express my sincere gratitude to medical staffs and all concerned persons who have been combatting the coronavirus pandemic.

Today, we will have the first and challenging Teleconference of the Council meeting. I would like to thank the Secretariat, Departments, and all SEAFDEC Member Countries for preparing for this Teleconference under the unprecedented and difficult circumstances.

This year's Council meeting was originally scheduled to be held in Fukuoka, Japan, but due to the outbreak of the coronavirus, it has become impossible. Therefore, my statement is no longer a welcome statement by the host country, but I am still highly positive to have a meeting with all of you through the Internet. I sincerely hope that human being will overcome the coronavirus as early as possible and we will have a face-to-face meeting for enabling the smooth operation of SEAFDEC and effective implementation of SEAFDEC programs.

As ASEAN Member Countries make up more than 20% of the world's capture fishery production, my colleagues Council Directors, you are significant players in global fisheries production. SEAFDEC plays a vital role as a technical support organization in expanding sustainable fisheries in the Southeast Asian region. Japan will continue to do its best for assisting ASEAN Member Countries through SEAFDEC.

At this teleconference, we will discuss the agenda items that require urgent consideration such as this year's programs, the 2021 budget and the "Draft of Resolution and Action Plans", which are fundamental for the function of the organization.

As the chairperson, I will devote my best efforts for facilitating smooth operation of the meeting, and I hope that we will have fruitful exchange of views and ideas.

Thank you for your attention.

Annex 4

AGENDA

Agenda	Session
Agenda 1: Procedural Matters	
1.1 Opening of the Meeting by the Chairperson of SEAFDEC Council for the Year 2019-2020	Teleconference
1.2 Election of Chairperson for the Year 2020-2021	Teleconference
1.3 Adoption of the Agenda and Arrangements for the Meeting	Teleconference
Agenda 2: Report of the Secretary-General	<i>Ad referendum</i>
Agenda 3: Note of the Chairperson of the SEAFDEC Program Committee on the Results of the Forty-second Meeting	Teleconference
Agenda 4: Note of the Chairperson of the Fisheries Consultative Group (FCG) of the ASEAN-SEAFDEC Strategic Partnership (ASSP) on the Results of the Twenty-second Meeting of FCG/ASSP	Teleconference
Agenda 5: Policy Consideration on Important Issues	
5.1 Issues on Combating IUU Fishing	
5.1.1 ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain	<i>Ad referendum</i>
5.1.2 Regional Fishing Vessels Record	<i>Ad referendum</i>
5.1.3 ASEAN Catch Documentation Scheme	<i>Ad referendum</i>
5.1.4 Regional Cooperation to Support the Implementation of the Port State Measures in ASEAN Region	<i>Ad referendum</i>
5.1.5 Regional Plan of Action for Management of Fishing Capacity	<i>Ad referendum</i>
5.2 Regional Cooperation to Promote Sustainable Fisheries and Aquaculture in the ASEAN Region	
5.2.1 Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region	<i>Ad referendum</i>
5.2.2 ASEAN Guidelines on Aquatic Emergency Preparedness and Response Systems for Effective Management of Transboundary Disease Outbreak in Southeast Asia	<i>Ad referendum</i>
5.2.3 Proposed Assessment of Aquaculture Research and Development Updates in Southeast Asia	<i>Ad referendum</i>
5.2.4 Progress on Regional Guidelines on Cold Chain Management for Seafood	<i>Ad referendum</i>
5.2.5 Regional Action Plan for Management of Transboundary Species: Indo-pacific Mackerel in the Gulf of Thailand Sub-region	<i>Ad referendum</i>
5.3 Other Matters	
5.3.1 Project Concept Note: Enhance Healthy Ocean Ecosystems through the Best Practice in Trawl Fisheries and Innovation	<i>Ad referendum</i>
5.3.2 Project Concept Note: Ocean Relief through Seaweed Aquaculture	<i>Ad referendum</i>
5.3.3 Project Concept Note: Regional Collaborative Research and Capacity Building for Monitoring and Reducing Marine Debris from Fisheries in Southeast Asia	<i>Ad referendum</i>
5.3.4 Project Concept Note: SEAFDEC Capacity Development through USAID Sustainable Fish Asia Activity	<i>Ad referendum</i>
5.3.5 Others	<i>Ad referendum</i>
Agenda 6: Cooperation with International/Regional Organizations and Non-member Governments	<i>Ad referendum</i>

Agenda	Session
Agenda 7: Other Matters	
7.1 Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030	Teleconference
7.2 Preparation of Southeast Asian State of Fisheries and Aquaculture (SEASOFIA) 2022	<i>Ad referendum</i>
7.3 Revision of Regional Framework for Fishery Statistics of Southeast Asia	<i>Ad referendum</i>
Agenda 8: Future Direction Requested by the Council	
Agenda 9: Management of the Center	
9.1 Operation of SEAFDEC Training and Research Vessels	Teleconference
9.2 Collaborative Arrangements between SEAFDEC and Other Organizations	<i>Ad referendum</i>
9.3 Procedures for Establishment of Cooperation between SEAFDEC and Other Organizations	<i>Ad referendum</i>
9.4 Monitoring the Implementation of Gender Strategy	<i>Ad referendum</i>
9.5 Outlines of 5-Year Achievement of IFRDMD	<i>Ad referendum</i>
9.6 SEAFDEC Regional Fisheries Policy Network (RFPN)	<i>Ad referendum</i>
Agenda 10: Financial Matters	
10.1 Adoption of Audited Financial Report for the Year 2018	<i>Ad referendum</i>
10.2 Un-audited Financial Report for the Year 2019, and Status of the Financial Situation for the Year 2020	<i>Ad referendum</i>
10.3 Proposed Budgetary Requirements of the Center for the Year 2021	Teleconference
Agenda 11: Others	<i>Ad referendum</i>
Agenda 12: Concluding Matters	
12.1 Adoption of the Meeting Report	Teleconference
12.2 Date and Venue of the Fifty-third Meeting of the Council	Teleconference
Agenda 13: Closing of the Meeting	Teleconference

EXECUTIVE SUMMARY OF THE FORTY-SECOND MEETING OF THE PROGRAM COMMITTEE

The Forty-second Meeting of the Program Committee of the Southeast Asian Fisheries Development Center (SEAFDEC) was held in Chiang Mai, Thailand from 11 to 13 November 2019 and hosted by the SEAFDEC Training Department (TD). The Secretary-General of SEAFDEC, in her capacity as the Chairperson of SEAFDEC Program Committee, chaired the Meeting which reviewed the programs implemented by SEAFDEC in 2019 and scrutinized the programs to be implemented in 2020 to ensure that these have been formulated and implemented in line with the priorities and needs of the Member Countries. The list of SEAFDEC Programs and Projects for 2019-2020 appears in **Appendix 1**.

For the **Programs under the FCG/ASSP Mechanism**, which comprise twenty-one (21) projects that have been categorized under the six (6) SEAFDEC Strategies: 1) Securing the sustainability of fisheries to contribute to food security, poverty alleviation and livelihood of people in the region; 2) Supporting the sustainable growth of aquaculture to complement fisheries and contribute to food security, poverty alleviation and livelihood of people in the region; 3) Ensuring the food safety and quality of fish and fishery products for the Southeast Asian region; 4) Enhancing trade and compliance of the region's fish and fishery products with market requirements; 5) Addressing cross-cutting issues, such as labor, gender and climate change, where related to international fisheries; and 6) Empowering SEAFDEC to strengthen its roles in the region and to improve its services to Member Countries; and two (2) Special Projects, the Program Committee noted that 20 projects would be completed in 2019, while three (3) projects would be continued in 2020. The Program Committee also reviewed the thirteen (13) new projects under the FCG/ASSP Mechanism that are scheduled to commence in 2020, and the five (5) Pipeline Projects, of which SEAFDEC is securing the necessary funding for their implementation. The Program Committee then approved the implementation of the projects in 2019-2020, and provided recommendations that are summarized as follows:

Strategy I: Securing the sustainability of fisheries to contribute to food security, poverty alleviation and livelihood of people in the region

- (1) Human Resource Development for Sustainable Fisheries**
 - SEAFDEC to consider developing performance indicators in relation to the project objectives to facilitate effective and efficient review of the projects by the Program Committee Members
 - TD to consider expanding the project activities in the future to cover inland fisheries
 - TD to introduce the EAFM concept in Myanmar through the training of trainers (TOTs)
 - TD to expand the activities related to the promotion of EAFM in other areas of Lao PDR in the future
- (2) Optimizing Energy Use/Improving Safety Onboard in Fishing Activities**
 - TD to package and disseminate the purse seine vessel modification technique through appropriate information materials for dissemination to the Member Countries
- (3) Promotion of Sustainable Fishery Resources Enhancement Measures in Critical Habitats/Fishing Grounds in Southeast Asia**
 - TD to develop maps of important fishing grounds and critical habitats of relevant species in the region based on data collected from SEAFDEC programs, which could serve as platform for information sharing on resource enhancement activities
 - TD to establish pilot sites in the region to determine the benefits of the project and conduct relevant regional training programs
 - TD to develop protocols for rehabilitation of depleted stocks of different wild species, *e.g.* blue swimming crab, dog conch, and others, and enhance cooperation with AQD in mobilizing the technologies on seed production of such species

- (4) **Enhancement of the Sustainability of Catadromous Eel Resources in Southeast Asia**
 - SEAFDEC to continue supporting the Philippines in improving data collection and management of catadromous eel resource in the country
- (5) **Promotion of Responsible Utilization of Inland Fisheries in Southeast Asia**
 - The 42PCM took note of the progress of the project in 2019.
- (6) **Promotion of Countermeasures to Reduce IUU Fishing Activities**
 - TD to consider synthesizing the data in the RFVR Database for dissemination to the Member Countries
 - TD to find the ways of improving the existing RFVR Database prior to expanding the database to cover small fishing vessels, taking into account the relevant economic, livelihood, and political considerations in designing the specific activities in the future
 - Should the development of database for the vessels less than 24 meters in length be considered, TD to determine the appropriate approaches for inputting the necessary data, for example by importing the data from the countries' databases, considering the large number of small-scale fishing vessels in the region
- (7) **Establishment and Operation of a Regional System of Fisheries *Refugia* in the South China Sea and Gulf of Thailand¹**
 - Project to incorporate the establishment of *refugia* sites and development of management measures toward the sustainability of various species (*e.g.* squid) that are economically important for the Southeast Asian region
- (8) **Offshore Fisheries Resources Exploration in Southeast Asia**
 - TD to continue providing capacity building to the Member Countries on stock assessment
 - In future development of project documents, TD to ensure that the titles of project documents reflect the actual activities being proposed
- (9) **Enhancing the Compilation and Utilization of Fishery Statistics and Information for Sustainable Development and Management of Fisheries in the Southeast Asian Region**
 - The 42PCM took note of the progress of the project in 2019.
- (10) **Comparative Studies for Management of Purse Seine Fisheries in the Southeast Asian Region**
 - MFRDMD to consider alternative solutions for appropriate management measures for purse seine fisheries in the region which should not be based only on output control such as catch limit but also input and technical control
 - MFRDMD to consider improving the accuracy of calculating the catch per unit effort (CPUE)
 - MFRDMD to conduct data analysis of the same dataset collected by the project using another method, to be able to include the range of uncertainties, and compare and understand the results
- (11) **Research for the Enhancement of Sustainable Utilization and Management of Sharks and Rays in the Southeast Asian Region**
 - The 42PCM took note of the progress of the project in 2019.
- (12) **Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia**
 - SEAFDEC to combine all projects related to anguillid eel resources that are implemented by SEAFDEC, and report the progress of such projects as one group
- (13) **SEAFDEC-EU/CITES Sharks Project Phase II**
 - The 42PCM took note of the progress of the project in 2019.

¹ This project will be continued in 2020

- (14) **Strengthening the Effective Management Scheme with GIS (Geographic Information System) and RS (Remote Sensing) Technology for Inland Fisheries and Aquaculture in the AMS²**
- Project to extend support to Thailand through the conduct of training programs for concerned officers of the DOF Thailand

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

- (15) **Environment-friendly, Sustainable Utilization and Management of Fisheries and Aquaculture Resources**
- AQD to consider implementing in the future, more activities on aquaculture considering its potential benefits to poverty alleviation and improved livelihood of people in the fisheries communities
 - AQD to consider expanding its activities on fishmeal replacement for feeds for marine species, e.g. sea bass and grouper
- (16) **Reinforcement and Optimization of Fish Health Management and the Effective Dissemination in the Southeast Asian Region**
- The 42PCM took note of the progress of the project in 2019.

Strategy III: Ensuring the food safety and quality of fish and fishery products for the Southeast Asian region

- (17) **Chemicals and Drug Residues in Fish and Fish Products in Southeast Asia- Biotoxins (ASP, AZA and BTX) and Harmful Algal Blooms (HABs) in the ASEAN Region**
- The 42PCM took note of the progress of the project in 2019.

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

- (18) **Combating IUU Fishing in the Southeast Asian Region through Application of Catch Certification for Trading of Fish and Fishery Products**
- The 42PCM took note of the progress of the project in 2019.

Strategy V: Addressing cross-cutting issues, such as labor, gender and climate change, where related to international fisheries

- (19) **Assistance for Capacity Building in the Region to Address International Fisheries-related Issues**
- The 42PCM took note of the progress of the project in 2019.

Strategy VI: Empowering SEAFDEC to strengthen its roles in the region and to improve its services to Member Countries

- (20) **Fisheries Resource Survey and Operational Plan for the M.V. SEAFDEC 2²**
- TD to consider supporting the conduct of hydroacoustic survey of fishing grounds in the Philippines and studies on the distribution of biomass of small pelagic fishes, taking into consideration the existing expertise and equipment in SEAFDEC and Member Countries
 - TD to support Myanmar in its fisheries resources survey of shallow waters and coastal areas that are beyond the survey plan of the R.V. Dr. Fridtjof Nansen Project to provide support to Myanmar in building up the capacity of its officers in conducting surveys in the waters of Myanmar, in 2020-2024
 - SEAFDEC to consider cooperating in the joint R.V. Dr. Fridtjof Nansen survey in the BOBLME of Myanmar and Thailand, and sharing of the information obtained from the surveys

² This project will be continued in 2020

using the R.V. Dr. Fridtjof Nansen and the M.V. SEAFDEC 2 that are useful for the participating countries

- TD to consider extending support to officers of the Philippines in the conduct of acoustic surveys in the country's waters for the officers to obtain hands-on experience
- TD to consider acquiring a new scientific echo-sounder to be used during the surveys of the waters of the Southeast Asian countries

(21) Strengthening SEAFDEC Network for Sustainable Fisheries

- The 42PCM took note of the progress of the project in 2019.

Special Projects

(1) Fisheries and Habitat Management, Climate Change and Social Well-being in Southeast Asia

- The 42PCM took note of the progress of the project in 2019.

(2) The Oceans and Fisheries Partnership (USAID Oceans)

- The 42PCM took note of the progress of the project in 2019.

New Proposed Projects for the Year 2020

(1) Strengthening a Regional Cooperation and Enhancing National Capacities to Eliminate IUU Fishing in Southeast Asia

- TD to promote wider application of the eACDS in the region in order that similar documentation schemes would be adopted among the ASEAN Member States (AMSs)
- TD to consider fostering closer collaboration with the private sector in the implementation of the Project activities
- Project to include promotion of enhanced cooperation among the AMSs for sharing of relevant information and set up a network for combating IUU fishing in the region
- TD to improve the RFVR Database to ensure that it could support the implementation of monitoring, control, and surveillance (MCS) in the future
- For effective project document review, the Project to indicate the specific, measurable, achievable, realistic, and timely (SMART) objectives as well as include clear indications of project outputs, outcomes, and long-term impacts, and the mechanism for monitoring and evaluation of project implementation
- Regarding the development of the database for vessels less than 24 meters in length, the Project to include determining of the specific range of the lengths of vessels for the database
- Project to incorporate an analysis of the information in the RFVR Database similar to that of fishery statistics, to facilitate better understanding of the Database by the AMSs
- SEAFDEC to consider establishing the links for sharing of the data related the eACDS among the AMSs
- Project to include more frequent training sessions on the implementation of post State measures (PSM)

(2) Harmonization and Enhancing Utilization of Fishery Statistics and Information

- SEAFDEC Secretariat to encourage the AMSs to upgrade their respective fisheries statistical systems, including reporting of fishery statistics at species level as the information is necessary for stock assessment of the species
- SEAFDEC Secretariat to consider harmonizing the timeline between the FAO SOFIA and SEAFDEC SEASOFIA, e.g. publishing SEASOFIA every two or four years
- SEAFDEC Secretariat to extend meeting invitations to other Philippine agencies (not only to BFAR) responsible for fishery statistics in the Philippines

(3) Responsible Fishing Technology and Practices

- SEAFDEC to consider including in the Project, the development of responsible fishing technologies and practices for inland waters

- SEAFDEC to consider supporting the AMSs in the implementation of the FAO Voluntary Guidelines on the Marking of Fishing Gear, considering that the Guidelines has already been promoted by FAO
 - SEAFDEC could consider organizing experts' workshops on proper marking of different types of gears, particularly trawls and gillnets
 - SEAFDEC to consider incorporating in the Project, additional activities such as reducing fuel consumption, enhancing safety at sea, reducing carbon emission, and improving onboard fish handling using chilled seawater and salt
 - TD to conduct a pilot study or extension activity on the impacts of some gears (*e.g.* collapsible traps, trawls with small mesh size at codend) and share the results from relevant studies undertaken in the past, with the fishers as well as law enforcers of the region
- (4) **Enhancing Food Safety and Competitiveness of Seafood Products**
- MFRD to consider addressing the issues on seafood marketability as part of the competitiveness objective of the project
- (5) **Assistance for Capacity Development in the Region to Address International Fisheries-related Issues**
- The 42PCM took note of the progress of the project in 2019.
- (6) **Research for Enhancement of Sustainable Utilization and Management of Sharks and Rays in the Southeast Asian Region**
- Project to include risk assessment for selected shark species as well as the use of appropriate stock assessment models (*i.e.* data limited methods) considering the shark statistics data that are available in the region
- (7) **Sustainable Utilization of Anguillid Eels in the Southeast Asian Region**
- The 42PCM took note of the progress of the project in 2019.
- (8) **Sustainable Utilization of Fisheries Resources and Resources Enhancement in Southeast Asia**
- TD to conduct training for staff of DOF Thailand onboard the M.V. SEAFDEC 2 during its cruise surveys, which could include the aspects on fishing and marine engine operations
- (9) **Fisheries Management Strategies for Pelagic Fish Resources in the Southeast Asian Region**
- Project to include a compilation of existing management measures for small pelagic species at national level that are available
 - Project to also clarify and define the scoping of activities, the connectivity and broad range of life history for selected species as these affect the sampling strategy
 - Project to incorporate the capacity building needs for fishery managers to enable them to translate the scientific findings into policies
 - Project to consider including a literature review of existing information on stock status and biology for neritic tunas from the Working Party on Neritic Tunas of IOTC
- (10) **Sustainable Aquaculture through Cost-Effective Culture Systems, and Prompt and Effective Aquatic Animal Health Management**
- AQD to consider involving Indonesia in the capacity building related activities
 - Project to include activities on aquaculture of ornamental fishes and indigenous fish species, and marine aquaculture in floating cages adopting good aquaculture practices (GAqP) taking into account the optimum carrying capacity of water areas
- (11) **Management Scheme for Inland Fisheries in the Southeast Asian Region**
- IFRDMD to include the Philippines as a learning site of the Project
 - IFRDMD to consider involving Lao PDR in the Project, in particular on the activity related to data collection and analysis
 - IFRDMD to conduct the training course on data collection and stock assessment of inland fisheries in preparation for the compilation of baseline data on inland fisheries in the region

- IFRDMD to consider supporting the capacity building activities of Myanmar in the management of inland fisheries
- (12) **Small-scale Fisheries Management for Better Livelihood and Fisheries Resources**
- Project to indicate the intention of Indonesia to co-organize the Workshop on Assessing the Needs of the AMS in Implementing the FAO SSF Guidelines with respect to market access, in Bali, Indonesia in February 2020
 - Project to include the conduct of EAFM activities in other pilot sites in inland areas of Thailand
 - Project to involve the Philippines in sharing experiences gained from the implementation of EAFM in the Philippines
 - Project to include Lao PDR in the implementation of Project activities
- (13) **Development of Stock Assessment Method for Strengthening of Resources Management Measures of Tropical Anguillid Eels in AMS**
- The 42PCM took note of the progress of the project in 2019.

The Program Committee also endorsed the progress of the **Departmental Programs** in 2019 comprising twelve (12) programs, six (6) of which were implemented by AQD, namely: 1) Quality Seed for Sustainable Aquaculture; 2) Healthy and Wholesome Aquaculture; 3) Maintaining Environmental Integrity through Responsible Aquaculture; 4) Meeting Social and Economic Challenges in Aquaculture; 5) Adapting to Climate Change Impacts; and 6) Collaborative projects with the Philippine Government; two (2) by TD: 1) Promotion on Strengthening of SEAFDEC Visibility and Enhancing Human Capacity Building; and 2) Improvement of Fisheries Technology and Reduction of the Impact from Fishing; and four (4) by IFRDMD: 1) Stock Assessment in Inland Fisheries; 2) Development of Capacity Building Plan to support Management of Inland Aquatic Resources, Development of EAFM/EAA Training Modules and Conducting Training of Trainers on EAFM/EAA; 3) Improve livelihoods from Responsible Fisheries and Capacity for Conservation, by Preserving Clown Knife Fish Habitats and Protecting their Occurrence; and 4) Modernizing Irrigated Agriculture to Protect and Restore Aquatic Biodiversity and Ecosystem Services in Southeast Asia. The Program Committee then provided recommendations on these programs which are summarized as follows:

1. Aquaculture Department

- AQD to consider sharing the results of its Departmental programs with the other AMSs in order that these could be adapted by the countries their efforts towards achieving the sustainable development of aquaculture
- AQD to also share its experiences and disseminate the technologies generated from its numerous activities for the benefit of the other SEAFDEC Member Countries

2. Training Department

- TD to consider including the participation of MFRDMD in the training in Japan on hydroacoustic research, especially on the use of scientific echo-sounder

3. Inland Fishery Resources Development and Management Department

- IFRDMD to consider collaborating with other SEAFDEC Departments in the implementation of its Departmental programs (e.g. stock enhancement, EAFM, EAAM)

The Program Committee took note the progress of the **Other Program** on “Implementing the Lower Mekong Fish Passage Initiative in Cambodia, Thailand, and Viet Nam” which was implemented in 2019 and the proposed activities of the project in 2020, and also noted the status of the five (5) **Pipeline Projects**:

(1) ASEAN-JICA Food Value Chain Development Project

- Project to include public-private partnership in the Project activities

(2) ASEAN-JICA Cooperation for Capacity Building on IUU Fishing Countermeasures in Southeast Asia

- Project to include Viet Nam in the implementation of activities to support the country’s efforts in combating IUU fishing

- (3) **Gender Dimension in the Value Chain of Small-scale Fisheries & Aquaculture in Southeast Asia**
 - The 42PCM took note of the progress of the project in 2019.
- (4) **FAO-GEF Project: Sustainable Management of Fisheries, Marine Living Resources and Their Habitats in the Bay of Bengal Region for the Benefit of Coastal States and Communities: Support to SEAFDEC Member Countries**
 - SEAFDEC to consider involving MFRDMD in the project planning and implementation considering its mandate and responsibility to promote sustainable fisheries management in the region
- (5) **World Bank Project: Piloting the Electronic ASEAN Catch Documentation Scheme (eACDS) in Viet Nam**
 - SEAFDEC to consider establishing a learning site in existing tourism areas in order Thailand, e.g. in Krabi Province of Thailand, to expand the market access for small-scale fisheries communities by building upon the success of the EAFM learning sites.

On the statements delivered by non-member governments and international/regional organizations, namely: the Food and Agriculture Organization of the United Nations/Regional Office for Asia and Pacific (FAO/RAP), Inland Fisheries Training Center of Gifu Prefecture in Japan, Japan International Cooperation Agency (JICA), and the United States Agency for International Development/Regional Development Mission for Asia (USAID/RDMA), the Program Committee took note of the presentation on the “New Regional Marine Conservation Activity Design” by the representative from USAID/RDMA building upon the successes of the USAID Oceans activities in combating IUU fishing and promoting sustainable fisheries, and the intention of the U.S. Government to continue supporting the biodiversity conservation activities in the region subject to the availability of funds.

While taking note of the efforts made by the SEAFDEC Secretariat in facilitating the revision of the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020, which in response to the directive of the SEAFDEC Council during its Meeting in 2018, the Program Committee commended the SEAFDEC Secretariat for coming up with the Draft Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030.

The Program Committee noted the outputs of the “Capacity Development Workshop on Stock Status Assessment and Estimation of SDG Indicator 14.4.1 for the Asia Pacific Region”, which was conducted jointly by FAO and SEAFDEC on 2-4 October 2019 in Bangkok, Thailand. The Program Committee also noted the draft Procedures for Establishment of Cooperation between SEAFDEC and Other Organizations which was developed in response to the request of the Council Director for Japan, indicating the several types of organizations that the SEAFDEC Secretariat and Departments wish to establish cooperation with in line with the Article 12 and Article 13 of the Agreement on Establishing SEAFDEC, as well as the different procedures for approval.

The Program Committee adopted the **Report of the 42nd Meeting of the SEAFDEC Program Committee** for submission to the 52nd Meeting of SEAFDEC Council, and to the ASEAN through the 22nd Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (FCG/ASSP).

SEAFDEC Programs and Projects for the Year 2019-2020

I. Programs of Activities under FCG/ASSP Mechanism

Strategy/Project Title	Lead Department	2019	2020
Strategy I: Securing the sustainability of fisheries to contribute to food security, poverty alleviation and livelihood of people in the region			
1. Human Resource Development for Sustainable Fisheries	TD	Y	N
2. Optimizing Energy Use/Improving Safety Onboard in Fishing Activities	TD	Y	N
3. Promotion of Sustainable Fisheries Resources Enhancement Measures in Critical Habitats/Fishing Grounds in Southeast Asia	TD	Y	N
4. Enhancement of Sustainability of Catadromous Eel Resources in Southeast Asia	IFRDMD	Y	N
5. Promotion of Responsible Utilization of Inland Fisheries in Southeast Asia	IFRDMD	Y	N
6. Promotion of Countermeasures to Reduce IUU Fishing Activities	TD	Y	N
7. Establishment and Operation of a Regional System of Fisheries <i>Refugia</i> in the South China Sea and Gulf of Thailand	TD	Y	Y
8. Offshore Fisheries Resources Exploration in Southeast Asia	TD	Y	N
9. Enhancing the Compilation and Utilization of Fishery Statistics and Information for Sustainable Development and Management of Fisheries in Southeast Asian Region <ul style="list-style-type: none"> • Improving the Data Collection of the Commercially-exploited Aquatic and Threatened Species • Facilitating fisheries activity information gathering through introduction of Community-based Resources Management/Co-management 	TD	Y	N
10. Comparative Studies for Management of Purse Seine Fisheries in the Southeast Asian Region	MFRDMD	Y	N
11. Research for Enhancement of Sustainable Utilization and Management of Sharks and Rays in the Southeast Asian Region	MFRDMD	Y	N
12. Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia	SEC	Y	N
13. SEADFDEC-EU/CITES Sharks Project Phase II	SEC	Y	N
14. Strengthening the Effective Management Scheme with GIS (Geographic Information System) & RS (Remote Sensing) Technology for Inland Fisheries and Aquaculture at AMSs.	TD	Y	Y
Strategy II :Supporting the sustainable growth of aquaculture to complement fisheries and contribute to food security, poverty alleviation and livelihood of people in the region			
15. Environment-Friendly, Sustainable Utilization and Management of Fisheries and Aquaculture Resources	AQD	Y	N
16. Reinforcement and Optimization of Fish Health Management and the Effective Dissemination in the Southeast Asian Region	AQD	Y	N
Strategy III :Ensuring the food safety and quality of fish and fishery products for the Southeast Asian region			
17. Chemicals and Drug Residues in Fish and Fish Products in Southeast Asia Biotoxins (ASP, AZA and BTX) and Harmful Algal Bloom (HABs) in the ASEAN region.	MFRD	Y	N
Strategy IV: Enhancing trade and compliance of the region's fish and fishery products with market requirements			
18. Combating IUU Fishing in the Southeast Asian Region through Application of Catch Certification for Trading of Fish and Fishery Products	MFRDMD	Y	N

Strategy/Project Title	Lead Department	2019	2020
Strategy V: Addressing cross-cutting issues, such as labor, gender and climate change, where related to international fisheries			
19. Assistance for Capacity Building in the Region to Address International Fisheries-related Issues	SEC	Y	N
Strategy VI: Empowering SEAFDEC to strengthen its roles in the region and to improve its services to Member Countries			
20. Fisheries Resource Survey & Operational Plan for M.V. SEAFDEC 2	TD	Y	Y
21. Strengthening SEAFDEC Network for Sustainable Fisheries	SEC	Y	N
Special Projects			
22. Fisheries and Habitat Management, Climate Change and Social Well-being in Southeast Asia	SEC	Y	N
23. The Oceans and Fisheries Partnership (USAID Oceans)	TD	Y	N

New proposed Projects for the Year 2020

Strategy/Project Title	Lead Department	Period
1. Strengthening a Regional Cooperation and Enhancing National Capacities to Eliminate IUU Fishing in Southeast Asia	TD	2020-2024
2. Harmonization and Enhancing Utilization of Fishery Statistics and Information	SEC	2020-2024
3. Responsible Fishing Technology and Practice	TD	2020-2024
4. Enhancing Food Safety and Competitiveness of Seafood Products	MFRD	2020-2024
5. Assistance for Capacity Development in the Region to Address International Fisheries-related Issues	SEC	2020-2024
6. Research for Enhancement of Sustainable Utilization and Management of Sharks and Rays in the Southeast Asian Region	MFRDMD	2020-2024
7. Sustainable Utilization of Anguillid Eels in the Southeast Asian Region	IFRDMD	2020-2024
8. Sustainable Utilization of Fisheries Resources and Resources Enhancement in Southeast Asia	TD	2020-2024
9. Fisheries Management Strategies for Pelagic Fish Resources in the Southeast Asian Region	MFRDMD	2020-2024
10. Sustainable Aquaculture through Cost-Effective Culture Systems, and Prompt and Effective Aquatic Animal Health Management	AQD	2020-2024
11. Management Scheme for Inland Fisheries in the Southeast Asian Region	IFRDMD	2020-2024
12. Small-scale Fisheries Management for Better Livelihood and Fisheries Resources	TD	2020-2024
13. Development of Stock Assessment Method for Strengthening of Resources Management Measures of Tropical Anguillid Eels in AMS	SEC	2020-2021

II. Departmental Programs

Programs/Projects	Department	2019	2020
1. Quality Seed for Sustainable Aquaculture	AQD	Y	Y
2. Healthy and Wholesome Aquaculture	AQD	Y	Y
3. Maintaining Environmental Integrity through Responsible Aquaculture	AQD	Y	Y
4. Meeting Social and Economic Challenges in Aquaculture	AQD	Y	Y
5. Adapting to Climate Change	AQD	Y	Y
6. Priority and Special Projects	AQD	Y	N
7. Collaborative Projects with the Philippine Government	AQD	N	Y
8. Promotion on Strengthening of SEAFDEC Visibility and Enhancing Human Capacity Building	TD	Y	Y
9. Improving of Fisheries Technology and Reduction of the Impact from Fishing Activities	TD	Y	Y
10. Stock Assessment in Inland Fisheries	IFRDMD	Y	Y
11. Development of Capacity Building Plan to support Management of Inland Aquatic Resources, Development of EAFM/EAA Training Modules and Conducting Training of Trainers on EAFM/EAA	IFRDMD	Y	N
12. Improve Livelihoods from Responsible Fisheries and Capacity for Conservation, by Preserving Clown Knife Fish Habitats and Protecting their Occurrence	IFRDMD	Y	Y
13. Modernizing Irrigated Agriculture to Protect and Restore Aquatic Biodiversity and Ecosystem Services in South-East Asia	IFRDMD	Y	Y

III. Other Programs

Projects Title	Department	2019	2020
1. Implementing the Lower Mekong Fish Passage Initiative in Cambodia, Thailand, and Viet Nam	TD	Y	Y

IV. Pipeline Projects

Projects Title	Lead Department	Period
1. ASEAN-JICA Food Value Chain Development Project	SEC	-
2. ASEAN-JICA Cooperation for Capacity Building on IUU Fishing Conutermeasures in Southeast Asia	TD	-
3. Gender Dimension in the Value Chain of Small-scale Fisheries & Aquaculture in Southeast Asia	TD	2020-2021
4. Sustainable Management of Fisheries, Marine Living Resources and Their Habitats in Bay of Bengal for the Benefit of Coastal States and Communities: Support to SEAFDEC Member Countries	TD	-
5. Piloting the Electronic ASEAN-Catch Documentation Scheme (eACDS) in Viet Nam	TD	-

Remarks:

Y = Program implemented during the year

N = Program not implemented during the year

**EXECUTIVE SUMMARY OF THE
TWENTY-SECOND MEETING OF THE FISHERIES CONSULTATIVE GROUP (FCG)
OF THE ASEAN-SEAFDEC STRATEGIC PARTNERSHIP (ASSP)**

1. The Twenty-second Meeting of the Fisheries Consultative Group (FCG) of the ASEAN-SEAFDEC Strategic Partnership (ASSP) or 22FCG/ASSP was convened on 14-15 November 2019 in Chiang Mai, Thailand and was co-chaired by the representative from Viet Nam on behalf of the current Chairperson of the ASEAN Sectoral Working Group on Fisheries (ASWGF_i) and the Secretary-General of SEAFDEC. Attended by representatives from the ASEAN-SEAFDEC Member Countries and the ASEAN Secretariat, and SEAFDEC officials led by the SEAFDEC Secretary-General, the 22FCG/ASSP discussed the programs and activities implemented by SEAFDEC in 2019 and those proposed for 2020 under the FCG/ASSP mechanism as endorsed by the SEAFDEC Program Committee at its Forty-second Meeting (42PCM) in November 2019, and the progress of other proposals implemented under the ASSP framework, as well as the policy considerations on issues of importance to the fisheries sector of the ASEAN-SEAFDEC Member Countries.

2. Regarding the “Follow-up Actions to the Directives Given at the Fifty-first Meeting of the SEAFDEC Council and the Twenty-first Meeting of the Fisheries Consultative Group (FCG) of the ASEAN-SEAFDEC Strategic Partnership (ASSP),” the 22FCG/ASSP took note of the actions undertaken by SEAFDEC in response to the directives of the SEAFDEC Council at its 51st Meeting and those of the FCG/ASSP at its 21st Meeting.

3. On the “Follow-up Actions to the Directives Given at Meetings of the ASEAN Bodies Related to Fisheries during 2019,” the 22FCG/ASSP noted the results of the discussions of the ASEAN Bodies Related to Fisheries, namely the 27th Meeting of the ASEAN Sectoral Working Group on Fisheries (27th ASWGF_i Meeting) in June 2019 in Da Nang, Viet Nam; the Special Senior Official Meeting of the 40th Meeting of the ASEAN Ministers on Agriculture and Forestry (Special SOM-40th AMAF) in August 2019 in Hue City, Viet Nam; the Special Senior Officials Meeting of the Forty-first Meeting of the ASEAN Ministers on Agriculture and Forestry Plus Three (Special SOM-18th AMAF Plus Three) also in August 2019 in Hue City, Viet Nam; and the 41st Meeting of the ASEAN Ministers on Agriculture and Forestry (41st AMAF) in October 2019 in Brunei Darussalam. More particularly, the 22FCG/ASSP noted the adoption by the 41st AMAF Meeting of the “Regional Guidelines on Cold Chain Management for Seafood,” and the “Regional Technical Guidelines on Early Warning System for Aquatic Animal Health Emergencies.”

4. Specifically, the 22FCG/ASSP considered the views expressed with respect to the Regional Fishing Vessels Record (RFVR) that SEAFDEC should first focus on fully utilizing the current RFVR Database for vessels 24 meters in length and over, and that more discussions should be made before SEAFDEC would proceed with the establishment of a new set of Database for vessels less than 24 meters in length. Furthermore, the 22FCG/ASSP also reiterated that the information compiled in the RFVR Database could also serve as inputs to the FAO Global Record of Fishing Vessels, Refrigerated Transported Vessels and Supply Vessels (Global Record) in the future.

5. On the “**FCG/ASSP Collaborative Programs for the Year 2019-2020**,” the 22FCG/ASSP took note of the FCG/ASSP projects reviewed by the 42PCM, comprising twenty-three (23) ongoing projects, of which twenty (20) projects would be completed in 2019, and three (3) projects would be continued in 2020; and thirteen (13) new projects which would commence in 2020. Furthermore, the 22FCG/ASSP also noted the five (5) Pipeline Projects, which are still being discussed with prospective donors.

6. On the “**Progress of SEAFDEC-related Activities/Proposals under the ASEAN Fisheries Related Bodies**,” the 22FCG/ASSP provided the following recommendations:

- **ASEAN-Ad-hoc Steering Committee on Climate Change and Food Security**

- The results of the 8th Meeting of the Ad-hoc Steering Committee on Climate Change and Food Security (AHSCCC-FS) in March 2019 in Bali, Indonesia, were noted.

- **Progress of the ASEAN Fisheries Consultative Forum (AFCF)**
 - The results of the 11th Meeting of the ASEAN Fisheries Consultative Forum (AFCF) in June 2019 in Da Nang, Viet Nam, were noted.
- **Progress of the Implementation of the ASEAN Shrimp Alliance (ASA)**
 - The progress of the activities of the ASEAN Shrimp Alliance (ASA), as well as the results of the 9th Meeting of ASEAN Shrimp Alliance in June 2019 in Da Nang, Viet Nam, were noted.

7. With regards to the “**Policy Consideration on Important Fisheries-related Issues,**” the 22FCG/ASSP provided the following recommendations:

- **Combating IUU Fishing**
 - With regards to the “ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain,” especially on the suggestion made by MFRDMD for the ASEAN Member States (AMSs) to continue conducting self-evaluation of the implementation of the ASEAN Guidelines in their respective countries on a yearly basis, MFRDMD was requested to continue communicating with the AMSs to monitor the progress of their respective self-evaluation. However, the future activities of MFRDMD regarding the ASEAN Guidelines would be carried out subject to availability of funds.
 - On the “Regional Fishing Vessels Record,” the AMSs were urged to consider submitting their updated data to the RFVR Database for vessels 24 meters in length and over, and that SEAFDEC should consult with the AMSs during the technical meeting to be organized in 2020, to come up with an agreement on the appropriate size ranges for vessels less than 24 meters in length to be included in the Database, as well as the mechanism for harmonizing the submission of data on fishing vessels from AMSs to SEAFDEC, then to FAO in the future.
 - On the “ASEAN Catch Documentation Scheme,” of which the electronic ASEAN Catch Documentation Scheme (eACDS) was pilot tested in Brunei Darussalam in 2017 and now being pilot-tested in Viet Nam, Malaysia, and Myanmar, the eACDS should also be introduced to the other countries in the future, while the request of Cambodia for TD to provide technical assistance on the use of the eACDS’s offline application was noted.
 - On the “Regional Cooperation for Implementation of the Port State Measures (PSM),” SEAFDEC should consider providing capacity building activities to the AMSs in the implementation of the PSM, and should work closely with FAO to avoid the duplication of efforts.
 - With regards to the “Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity) including Establishment of Regional and Sub-regional MCS Network,” alternative approaches raised by the ASEAN Secretariat were noted, *e.g.* the AMSs to consider assigning focal points to coordinate the implementation of RPOA-Capacity, or discuss the proposed establishment of an MCS Network in the context of the ASEAN Network for Combating IUU Fishing (AN-IUU).
- **Promotion of Sustainable Fisheries and Aquaculture in ASEAN Region**
 - On the “Regional Plan of Action for Sustainable Utilization of Neritic Tunas in the ASEAN Region,” MFRDMD should make sure that the assumptions for different production models are satisfied prior to the analysis to ensure the reliability of the results, and to conduct data exploratory prior to the analysis and present the outcomes of data limitation that has been used in the analysis. Furthermore, the assessment should also provide a range of possible risks and stock projection that allow fisheries managers to understand and make decisions on the management measures.

- On the “ASEAN Regional Technical Guidelines on Early Warning System for Aquatic Animal Health Emergencies,” while noting that the Guidelines have already been adopted by the 41st AMAF in 2019, the activities under the proposed Phase 2 and Phase 3 of the project on Emergency Preparedness and Response Systems for implementation by AQD, were considered.
 - **Ensuring the Food Safety and Quality of Fish and Fishery Products in ASEAN Region**
 - On the “Regional Guidelines on Cold Chain Management for Seafood” which have already been adopted by the 41st AMAF in 2019, and the plan of MFRD to undertake activities under the proposed ASEAN-JICA Food Value Chain Development Project to support the sharing of information on the implementation of the Regional Guidelines, were considered.
 - On the “CITES-related Issues,” the Position of the ASEAN-SEAFDEC Member Countries on the Proposed Listing of Commercially-exploited Aquatic Species (CEAS) into the CITES Appendices and the results of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES CoP18) on the proposals to list such CEAS, were noted.
8. Under the “**Other Matters**,” the 22FCG/ASSP considered the progress of the development of the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 (RES&POA-2030), and also the future processes for submission of the RES&POA-2030 for adoption by the ASEAN-SEAFDEC Member Countries.
9. The Report of the 22FCG/ASSP was adopted on 15 November 2019.

Annex 7

**ASEAN GUIDELINES FOR PREVENTING THE ENTRY OF FISH AND FISHERY PRODUCTS
FROM IUU FISHING ACTIVITIES INTO THE SUPPLY CHAIN**

I. EXECUTIVE SUMMARY

The ASEAN Member States (AMSs) continued to prevent, deter and eliminate illegal, unreported, and unregulated (IUU) fishing in the region. Apart from MCS, trade-related measures are important to combat IUU fishing. The AMSs need to strengthen measures to exclude IUU fish and fishery products from the supply chain. SEAFDEC/MFRDMD in collaboration with SEAFDEC/Secretariat started the project in 2013 with funding support from Japanese Trust Fund VI (JTF VI) to formulate and to disseminate the “ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain”. Throughout several meetings involving all AMSs, experts from national and regional organizations, the ASEAN Guidelines was developed and finalized in 2014. The Guidelines was endorsed through the ASEAN protocol and finally endorsed up to ministerial level in 2015 at the AMAF meeting. As the ASEAN Guidelines was voluntary in nature, the Guidelines was implemented in AMSs according to the capacity of each AMSs.

After its endorsement, MFRDMD continued to promote the implementation of the ASEAN Guidelines since 2016. The status of implementation of the ASEAN Guidelines in AMSs was assessed based on self-evaluation by each AMS during 2017-2019. An interim report of the feedback and self-evaluation conducted on the implementation of the ASEAN Guidelines was published in the first quarter of 2019 and reported at the 51st Meeting of SEAFDEC Council in Surabaya, Indonesia in March 2019. The 51CM, MFRDMD took note of the advice on the engagement of external evaluators to see the real achievement of the Guidelines implementations in AMS, can be considered depending on availability of fund in the future. Later on, the final result of the status of implementation of the ASEAN Guidelines in all 10 AMS was discussed at the project terminal meeting which was organized from 3-5 September 2019. The self-evaluation scores of each country (% of total score) were as follows: 1) Brunei Darussalam, 84.8%; 2) Cambodia, 86.4%; 3) Indonesia, 97.6 %; 4) Lao PDR, 80%, 5) Malaysia, 98.4%; 6) Myanmar, 94.8 %; 7) Philippines, 99.6 %; 8) Singapore, 84.8%; 9) Thailand, 98%; and 10) Viet Nam, 96.4%. This indicates that all of AMSs have actively implemented national program and activities relevant to the Articles in the ASEAN Guidelines. The comprehensive result of this evaluation is appended as the annex of the final project report which was published in December 2019.

During the 22nd Meeting of the Fisheries Consultative Group (FCG) of the ASEAN-SEAFDEC Strategic Partnership (ASSP) organized in Chiang Mai, Thailand on November 2019, the Meeting noted the final results of the self-evaluation. The 22FCG/ASSP Meeting also recommended the AMSs to continue the conduct of self-evaluation of the implementation of the ASEAN Guidelines in their respective countries on a yearly basis.

II. REQUIRED CONSIDERATION BY THE COUNCIL

- To take note of the updated results of the self-evaluation on the implementation of the “ASEAN Guidelines for preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain” in ASEAN Member States; and
- To provide policy guidance on way forwards for promoting the implementation of this Guidelines.

PROGRESS ON REGIONAL FISHING VESSELS RECORD

EXECUTIVE SUMMARY

The Regional Fishing Vessels Record for 24 meters in length and over (RFVR-24m) and its database system were developed through a series of Expert Meetings and Regional Technical Consultations. Currently, the RFVR-24m includes the 28 Key Data Elements (KDEs) as basic information required effective tools to support the fishing vessel inspection to reduce the Illegal, Unreported and Unregulated (IUU) fishing vessels. It is expected that RFVR will work as a practical tool for the relevant authorities of the ASEAN Member States (AMSs) in checking and taking corrective actions against inappropriate behavior of its fishing vessels, thereby supporting the elimination of IUU fishing in the Southeast Asian region. For example, AMSs can take appropriate actions against “Stateless vessels, IUU fishing vessels, pouching” by sharing information and identifying problematic vessels through the RFVR database. Therefore, the information on the RFVR Database must be updated regularly by AMSs and shared for combating and eliminating IUU fishing in the region.

Recently, “The Meeting on Regional Fishing Vessels Record in Southeast Asia” was organized from 13 to 14 May 2019 in cooperation with AMSs and FAO as a side event meeting during “the FAO’s Fifth Meeting of the Global Record Informal Open-Ended Technical and Advisory Workshop Group (GRWG5)” in Seoul, the Republic of Korea. As agreed by AMS that the information of the RFVR Database is updated twice a year, Brunei Darussalam, Indonesia, Malaysia, and Singapore currently submitted their first updated information for 2019 to SEAFDEC.

As a result from the questionnaires on RFVR for 24 meters in length and over as well as for a new set of database for the vessels less than 24 meters in length, all AMSs generally agreed that the RFVR Database can be beneficial both at national and regional levels, and providing as effective tools to prevent IUU fishing. Additionally, the database of RFVR for the vessel size less than 24 meters (could be range 18–23.99 meters) will be discussed and developed in the near future through enhancing the utilization and improvement of the RFVR Database in cooperation with AMSs.

In reference with the recommendations made by the Fifty-first Meeting of SEAFDEC Council in 2019 in Surabaya, Indonesia, it was recognized that the current RFVR Database could serve as reference for data verification, support the proposed development of a regional “watchlist” of IUU fishing vessels, and could be expanded to cover data set for the vessels’ size less than 24 meters in order to enhance the utilization of the RFVR Database in the future. “The Regional Technical Consultation on Development and Improvement of Regional Tools for Combating IUU fishing in Southeast Asia” will be organized in 2020. It is expected that the Regional Technical Consultation will discuss the effective utilization of RFVR 24 meters in length and over, and provide technical recommendations for RFVR Database less than 24 meters.

REQUIRED CONSIDERATION BY THE COUNCIL

- To take note of the progress of work on RFVR undertaken by TD; and
- To consider and advise on the utilization of the RFVR database.

I. INTRODUCTION

The Regional Fishing Vessels Record for 24 meters in length and over (RFVR-24m) was endorsed by the SEAFDEC Council Meeting in 2013 and supported by the Special Senior Officials Meeting of the Thirty-fourth Meeting of the ASEAN Ministers on Agriculture and Forestry (Special SOM-34th AMAF). Subsequently, the Meeting of the SEAFDEC Council in 2014 endorsed the proposed plan of RFVR activities.

The RFVR-24m and its database system were developed through a series of Expert Meetings and Regional Technical Consultations. Currently, the RFVR-24m includes the 28 KDEs as basic information required ineffective tools to support the fishing vessel inspection by Port State to reduce the IUU fishing vessels

entry into port. It is expected that the RFVR will work as a practical tool for the relevant authorities of AMSs in checking and taking corrective actions against inappropriate behavior of its fishing vessels, thereby supporting the elimination of IUU fishing in the Southeast Asian region. For example, AMSs can take appropriate actions against “Stateless vessels, IUU fishing vessels, Port State Control and pouching” by sharing information and identifying problematic vessels through the RFVR database. Moreover, the information in RFVR Database needs to be updated regularly by AMSs to share information on fishing vessels for combating and eliminating IUU fishing in the region.

II. PROGRESS OF IMPLEMENTATION OF THE RFVR

Referring to the recommendation and suggestion by the Fifty-first Meeting of SEAFDEC Council held in March 2019 in Surabaya, Indonesia, it was considered that the current RFVR Database could serve as reference for data verification, support the proposed development of a “watchlist” of IUU fishing vessels, and expand to cover vessels less than 24 meters in length to enhance the utilization of the Database in the future. Therefore, the following activities of the RFVR were carried out accordingly.

2.1 The Meeting on Regional Fishing Vessels Record (RFVR) in Southeast Asia:

“The Meeting on Regional Fishing Vessels Record (RFVR) in Southeast Asia” was organized from 13 to 14 May 2019 as side event meeting during “the FAO’s Fifth Meeting of the Global Record Informal Open-Ended Technical and Advisory Workshop Group (GRWG5)” with support of AMSs, the Food and Agriculture Organization of the United Nations (FAO) and the Government of the Republic of Korea at the JW Marriott Hotel Seoul, Seoul, the Republic of Korea. There were 22 participants from AMSs (excluded Brunei Darussalam and Singapore), FAO, non-AMSs attended in this side event meeting. The Meeting discussed the progress of updated information for RFVR-24m, preparation and ways forward on the development of the RFVR Database less than 24 meters in Southeast Asia, future cooperation with FAO on sharing information between RFVR and Global Record.

2.2 Updates of the RFVR Database:

Following an official letter of request for updating the information of RFVR was sent to AMSs by SEAFDEC, the SEAFDEC/TD’s RFVR Team communicated with a national focal point for RFVR of each AMS to submit the updated information for the RFVR Database. The submission results in 2019 and early 2020 are shown in *Tables 1 and 2* respectively and the current number of fishing vessels in the RFVR Database is shown in *Table 3*.

Table 1: Submission of the updated information on RFVR in 2019

Country	January	April	July	October	November
Brunei Darussalam	√			√	
Indonesia	√		x		
Malaysia	√		√		
Myanmar		x			x
Philippines		x		x	
Singapore	√				
Thailand		√		√	
Viet Nam		x		x	

Remarks: 1) Thailand submitted the update information on 2019 in February 2020

2) Myanmar informed to submit the update data around July 2020

3) The Philippines informed that the update data will be submitted once completed

Table 2: Current updated information on RFVR in 2020 (1st submission)

Country	January	April	July	October	November
Brunei Darussalam	√				
Cambodia		x*			
Indonesia	√				
Malaysia	√				
Myanmar		x*			
Philippines		√			
Singapore	√				
Thailand		x			
Viet Nam		√*			

Remarks:

- 1) *Cambodia was submitted update data to SEAFDEC in March 2020 but information just update until year 2019
- 2) *Myanmar was submitted update data to SEAFDEC in April 2020 but information just update until year 2018
- 3) * Viet Nam submitted registration numbers and other details will be submitted soon.

Table 3: The current number of fishing vessels 24 meters in length and over in the RFVR Database

Country	Number of Vessels		Year Updated
	Fishing Vessels	Carrier Vessels	
Brunei Darussalam	10	-	2020
Cambodia	10	-	2019
Indonesia	2,481	323	2020
Lao PDR	-	-	-
Malaysia	193	-	2020
Myanmar	1,099	94	2018
Philippines	74	93	2020
Singapore	-	1	2020
Thailand	346	27	2019
Viet Nam	2,614	-	2020
Total	6,827	538	

2.3 Benefits of the RFVR Database for AMSs at National and Regional Level:

The questionnaires on RFVR for 24 meters in length and over and less than 24 meters in length at the national and regional level were sent to AMSs prior to the Regional Meeting on the Regional Fishing Vessel Record (RFVR) for 24 Meters in Length and Over as a Management Tool Toward Combating IUU Fishing in ASEAN” held in December 2018. All AMSs agreed that the RFVR Database has benefited at the national and regional level as effective tools to prevent IUU fishing. The more details are shown in **Appendix 1**.

2.4 Watchlist of IUU Fishing Vessels:

In following up with the recommendations in exploring the possible development and establishment of a regional watchlist of IUU fishing vessels, this activity was conducted and relevant information are shared by the RPOA-IUU Secretariat at www.rpoaiuu.org. Therefore, to avoid the duplication of the work, SEAFDEC will closely work with AMSs, such as introducing a watchlist and considering the criteria for a watchlist of IUU fishing vessels through “the Regional Technical Consultation on Development and Improvement of Regional Tools for Combating IUU Fishing in Southeast Asia” to be organized in 2020.



III. PLANNING FOR IMPLEMENTATION OF RFVR

3.1 Updating the RFVR Database in the Future:

In 2014, SEAFDEC developed the RFVR Database and its platform for updating data with support of AMSs. To further enhance and share the information on fishing vessels, it is important to have real-time updated data in the RFVR Database as a tool to reduce IUU fishing with full support and responsibility of AMSs for updating data. SEAFDEC is planning to develop a new platform for updating data on the RFVR Database and provide a guideline to AMSs how to update data directly in the Database. Therefore, AMSs will be responsible for and able to update data directly/timely on the RFVR Database in the near future. However, before further taking actions as planned above, SEAFDEC continues to cooperate with AMSs to input and upload the updated data on RFVR Database. SEAFDEC would like to remind and request AMSs for submitting the updated data in time as planned.

3.2 The Regional Technical Consultation on Development and Improvement of Regional Tools for Combating IUU Fishing in Southeast Asia:

In 2020, “the Regional Technical Consultation on Development and Improvement of Regional Tools for Combating IUU fishing in Southeast Asia” will be organized (note: *The RTC was originally planned to be organized on 12-14 March 2020 in Training Department, Thailand. However, in careful consideration of the current situation of Coronavirus (COVID-19) in the countries and region as well as the current status of the country nominations of participants, the RTC has been postponed for further notice*). The RTC will discuss on 1) way forward for the utilization of the RFVR-24m, 2) development of the RFVR Database less than 24 meters in length, 3) the introduction on “watchlist” and its criteria for consideration, and 4) other tools to combating IUU fishing.

Benefits of the RFVR Database for AMSs at National and Regional Level

	The benefit of RFVR Database for 24m in length	The benefit of RFVR Database for less than 24m in length
Brunei		
<i>Country</i>	Easy online reference on the details of respective size fishing vessels when required. The Department of Fisheries can focus those fishing vessels to be monitored and to keep informed the owner of the fishing vessels to operate fishing within the EEZ maritime area.	The details of the respective size fishing vessels would be easily referred and accessible online. Department of Fisheries would gain the benefit in the management, monitoring and surveillance aspects of those fishing vessels to operate fishing within the designated fishing zones inside the EEZ maritime area.
<i>Region</i>	Easy online reference on the details of respective size fishing vessels of other countries in the region when required especially when the foreign fishing vessels found conducting IUU fishing activities in Brunei Darussalam's EEZ maritime area.	The details of the respective size fishing vessels of other countries would be easily referred and accessible online when required especially when foreign fishing vessels found conducting IUU fishing activities in Brunei Darussalam's EEZ maritime area.
Cambodia		
<i>Country</i>	FiA of Cambodia has not yet implemented RFVR for 24 meters in length and over because there is no fishing vessel 24 meters in length and over.	<ul style="list-style-type: none"> - Easy to manage fishing vessels and fishing related activities. - Can identify IUU fishing vessels and take appropriate actions against IUU Vessels. - Useful to make a good plan for fisheries management. - It can improve fishing license and fishing vessel registration. - It can share information and other relevant data to relevant institutions and stakeholders.
<i>Region</i>	<ul style="list-style-type: none"> - Provide AMSs with reliable and rapid tools to share information on vessels engaging in international fishing operation (fishing operations in the foreign country's EEZ or in the high sea) - Facilitate AMSs to take coordinated countermeasures against IUU fishing vessels. 	<ul style="list-style-type: none"> - Provide AMSs with reliable and rapid tools to share information on vessels engaging in international fishing operation (fishing operations in the foreign country's EEZ or in the high sea) - Facilitate AMSs to take coordinated countermeasures against IUU fishing vessels.
Indonesia		
<i>Country</i>	<ul style="list-style-type: none"> - It will prevent the use of registered fishing vessels from other AMS to apply for fishing permits in Indonesia, thus prevent IUU Fishing. It also can be used to identify the origin of Illegal Fishing Vessel caught by the authorized officer. - However, Indonesia has not to use RFVR Database on assessing fishing vessels; rather we use our own Management Information System of Fishing Vessel Registration called SIPALKA. 	<ul style="list-style-type: none"> - It will prevent the use of registered fishing vessels from other AMS to apply for fishing permits in Indonesia, thus prevent IUU Fishing. It also can be used to identify the origin of Illegal Fishing Vessel caught by the authorized officer. - However, Indonesia has not to use RFVR Database on assessing fishing vessel; rather we use our own Management Information System of Fishing Vessel Registration called SIPALKA.
<i>Region</i>	<ul style="list-style-type: none"> - It will prevent the use of registered fishing vessels from other AMS to apply for 	<ul style="list-style-type: none"> - It will prevent the use of registered fishing vessels from other AMS to

	The benefit of RFVR Database for 24m in length	The benefit of RFVR Database for less than 24m in length
	<p>fishing permits in Indonesia, thus prevent IUU Fishing. It also can be used to identify the origin of Illegal Fishing Vessel caught by the authorized officer.</p> <ul style="list-style-type: none"> - However, Indonesia has not to use RFVR Database on assessing fishing vessel, rather we use our own Management Information System of Fishing Vessel Registration called SIPALKA 	<p>apply for fishing permits in Indonesia, thus prevent IUU Fishing. It also can be used to identify the origin of Illegal Fishing Vessel that caught by the authorized officer.</p> <ul style="list-style-type: none"> - However, Indonesia has not to use RFVR Database on assessing fishing vessel, rather we use our own Management Information System of Fishing Vessel Registration called SIPALKA
Malaysia		
<i>Country</i>	<p>For fishing vessel licensing management, the Department of Fisheries (DOF) has developed an e-licensing system that updates all information and data regarding the status of all Malaysian fishing vessels (from small scale to high seas vessels). Through this e-licensing system, fishing vessel data will be generated and updated to our MFVR as well as the RFVR system.</p> <p>MFVR is used by all fisheries-related enforcement agencies in Malaysia to know the current status of the specific Malaysian fishing vessel during the inspection or for intelligence gathering. Since MFRV covers all fishing vessels (from small scales to high seas vessels) and its data is always up to date, MFVR is highly reliable and it is used as the main reference since it also includes violations and penalties histories of each fishing vessels.</p> <p>It envisages for RFVR to be used as one of the main references by all fisheries related enforcement agencies in Southeast Asia to find out the current status of a specific foreign fishing vessel. One of the major concerns (for Malaysia) is to find out whether the fishing vessel is an IUU vessel and whether they are officially registered or deregistered by a Flag State. Internationally, any foreign vessels are required to submit a request to enter port 48 hours before the date of entry, so RFVR Database is important preliminary information while waiting for the Flag States to give their official response.</p> <p>However, as of now, since many Member Countries have issues in updating the RFVR Database, Malaysia did not rely on this database as one of the main references when conducting the investigation or collecting intelligence.</p>	<p>Malaysia has a database of all its fishing vessels from small scale fisheries to high seas as part of our efforts in managing our fishing capacity for sustainable fisheries management. To have a regional database for fishing vessels for less than 24 meters in length is highly desirable because of all the issues that have been highlighted earlier (for 24 meters length and over).</p> <p>However, since many major fishing countries in Southeast Asia did not license its small-scale fisheries or traditional fisheries, as such no official records, so it is rather pointless to proceed with the database for less than 24 meters in length. There is also no agreed definition for small scale fisheries for Southeast Asia if we want to exclude this type of fishing vessels from the database for less than 24 meters in length.</p>
<i>Region</i>	It envisages for RFVR to be used as one of the main references by all fisheries-related enforcement agencies in Southeast Asia to	It envisages for RFVR to be used as one of the main references by all fisheries-related enforcement agencies in Southeast Asia to

	The benefit of RFVR Database for 24m in length	The benefit of RFVR Database for less than 24m in length
	<p>find out the current status of a specific foreign fishing vessel. However, as of now, since many Member Countries have issues in updating the RFVR Database, Malaysia does not rely on this database as one of the main references when conducting an investigation or collecting intelligence.</p> <p>RFVR (if complete and actively activated) can also be used to analyze the level of fishing capacity (as baseline information) when conducting stock assessments on shared stocks between countries.</p>	<p>find out the current status of a specific foreign fishing vessel.</p> <p>RFVR (if complete and actively activated) can also be used to analyze the level of fishing capacity (as baseline information) when conducting stock assessments on shared stocks between countries.</p>
Philippines		
<i>Country</i>	RFVR database could be useful in Port State control, catch documentation and traceability system and strengthen to deter IUU fishing.	
<i>Region</i>	RFVR database could be useful in Port State control, catch documentation and traceability system and strengthen to deter IUU fishing.	
Singapore		
<i>Country</i>	The RFVR could be useful in helping to identify the Flag State of the fishing vessel and if the vessel is authorized to be fishing/operating outside of their waters. Details of the fishing vessels, including its relevant licenses and authorized activities, contained in the RFVR will facilitate the coastal State monitoring and surveillance as well as port State measure assessments.	
<i>Region</i>	In addition to the benefits mentioned in Q9, the RFVR could be useful in combatting IUU fishing as it helps to identify vessels that fish illegally in more than one AMS, as such vessels could also be involved in double-flagging activities.	
Thailand		
<i>Country</i>	<ol style="list-style-type: none"> 1. Use as a tool for support Port State Measure and also cross-check in the Catch Documentation. 2. Having the data of fishing vessels in neighboring countries' and also in South East Asia. 3. Database of RFVR 24 meters in length and over, some vessels can also use for submit to FAO Global Record. 	<ol style="list-style-type: none"> 1. Use data for surveillance on neighboring countries' fishing vessels poaching through Thai waters. 2. Use as a tool for support Port State Measure and also cross-check in the Catch Documentation. 3. Having the data of fishing vessels in neighboring countries and also in South East Asia.
<i>Region</i>	<ol style="list-style-type: none"> 1. Use as a tool for support Port State Measure and also cross-check in the Catch Documentation. 2. Having the data of fishing vessels in neighboring countries and also in South East Asia. 3. Database of RFVR 24 meters in length and over some vessels can also use for submit to FAO Global Record. 4. Strengthen on combating IUU fishing in South East Asia. 	<ol style="list-style-type: none"> 1. Use data for surveillance on neighboring countries fishing vessels poaching through Thai waters. 2. Use as a tool for support Port State Measure and also cross-check in the Catch Documentation. 3. Having the data of fishing vessels in neighboring countries' and also in South East Asia. 4. Strengthen on combating IUU fishing in South East Asia.

	The benefit of RFVR Database for 24m in length	The benefit of RFVR Database for less than 24m in length
	5. Got a credit on IUU free from trading countries.	5. Got a credit on IUU free from trading countries.
Viet Nam		
<i>Country</i>	<p>Management of Fishing Vessels by Lengths as of January 1, 2019, according to the Fisheries Law 2017, data on fishing vessels over 24m are essential in the management of fisheries in Viet Nam. It is one of the conditions required to be active in certain waters.</p> <p>According to the general trend of regional and international fisheries management organizations; Take part in fishing activities in international waters when licensed.</p> <p>To provide equipment for ensuring safety of fishing ships operating in sea areas according to Vietnamese and international regulations.</p>	<ul style="list-style-type: none"> - Develop planning and strategy for the development of fishing fleet for 10 years, 20 years, and 30 years; - License for quota-based exploitation by fishing methods and species based on the plan of aquatic resource exploitation - Manage capture fisheries activities from the granting of a license.
<i>Region</i>	<ul style="list-style-type: none"> - Unified management of capture fisheries in the area by length. Introduce mandatory regulations that unify the management of fishing vessels with Member Countries of SEAFDEC. Issue licenses for fishing vessels engaged in fishing in sea areas under the management of SEAFDEC or the world Fisheries Management Organizations. - Having the first database and researching and evaluating the resources, reserves and the possibility of exploiting them in the sea areas. 	<ul style="list-style-type: none"> - Database for research resources, reserves and the ability to allow exploitation; - Provide recommendations for the fisheries of Member Countries of regional fisheries management organizations.

Source: The result of questionnaires on RFVR for 24 meters in length and over and less than 24 meters in length at the national and regional level prior to the Regional Meeting on the Regional Fishing Vessel Record (RFVR) for 24 Meters in Length and Over as a Management Tool Toward Combating IUU Fishing in ASEAN” held in December 2018.

Annex 9

CONTINUING DEVELOPMENT OF ASEAN CATCH DOCUMENTATION SCHEME

EXECUTIVE SUMMARY

The development of the concept of an ASEAN Catch Documentation Scheme (ACDS) was initiated by SEAFDEC since 2014, after which it was endorsed by the Twenty-fifth ASEAN Sectoral Working Group on Fisheries (ASWGFi) in May 2017, and subsequently adopted by the Thirty-ninth AMAF Meeting in the same year. During the Forty-ninth Meeting of the SEAFDEC Council in April 2017, SEAFDEC was encouraged to develop the electronic system of the ACDS (eACDS) to enhance the trading of fish and fishery products from the Southeast Asian region, while the Council also endorsed Brunei Darussalam as the first pilot country for the application of the eACDS.

When SEAFDEC initiated the implementation of the eACDS in Brunei Darussalam as a pilot country, a series of consultation and on-site training sessions on the use of eACDS for relevant users (stakeholders) were conducted in collaboration with the Department of Fisheries (DOF) of Brunei Darussalam. The eACDS system is now currently ongoing process of testing by the relevant users in Brunei Darussalam. And during 2019, the eACDS application for Brunei Darussalam was improved and adjusted to support the relevant users. More user-friendly features had been introduced, such as the dashboard for managers and catch reporting system at sea by offline technology while relevant users had been retrained.

In addition to Brunei Darussalam, Viet Nam, Myanmar and Malaysia also requested for piloting the eACDS in their respective countries. Therefore, SEAFDEC has supported to these countries starting from introducing the eACDS. In 2019, SEAFDEC assisted Viet Nam in conducting activities on the application of eACDS and verification of its application, and on-site training on the application of eACDS using web-based/mobile for officers and stakeholders, development of the fish catch at sea reports by using offline technology, as well as development of electronic catch certification systems in Viet Nam; including Catch Declaration (CD), Movement Document (MD), Statement of Catch (SC), and Catch Certification (CC). For Myanmar and Malaysia, discussions on preparation of Key Data Elements (KDEs) for eACDS database development in pilot sites and verification on eACDS application had also been initiated in 2019. At present, these countries are in the stage of developing the eACDS and capacity developing for their relevant users.

With reference to the request of the representative from Cambodia during the SEAFDEC Program Committee Meeting in November 2019, for support in the implementation of eACDS in Cambodia, the workshop on the introduction of eACDS application was conducted in February 2020 in collaboration with the Fisheries Administration for the officers of relevant agencies in Phnom Penh, Cambodia.

REQUIRED CONSIDERATION BY THE COUNCIL

- To take note of the progress of eACDS implementation in Brunei Darussalam, Viet Nam, Myanmar, and Malaysia; and
- To take note of the introduction of eACDS in Cambodia and to provide advice on the ways to continue and expand the activities related to eACDS in other AMSs.

I. INTRODUCTION

In accordance with the need for the SEAFDEC Member Countries to comply with the requirements of the EC Regulation 1005/2008 since January 2010, the Thirteenth Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (FCG/ASSP) in December 2010 suggested that the SEAFDEC Secretariat should consider taking proactive role in facilitating the sharing of experiences and information among the Member Countries to enhance the countries' capacity and efforts in dealing with future market-driven measures that would impact the fisheries sectors in the Southeast Asian region. In this regard, SEAFDEC proposed to develop a common regional catch documentation scheme which would ensure that the traceability of capture fisheries is improved to meet the requirements of consumers and to reduce the impacts of such market-driven measures. The ASEAN Member States (AMSs) also expressed their support on improving the traceability of capture fisheries to ensure the sustainability of fisheries for

food security as guided by the Resolution and Plan of Action adapted in 2011. The development of a common regional catch documentation scheme, hereinafter called the “ASEAN Catch Documentation Scheme (ACDS), was therefore initiated by the SEAFDEC Secretariat since 2014 with the collaboration of SEAFDEC/MFRDMD and the experts and fisheries managers from SEAFDEC Member Countries, and with support from the Japanese Trust Funds, to enhance the intra-regional and international trade. which was also supported by the SSOM-AMAF in 2013.

Experts meetings and consultations then ensued, and by December 2014, the First Draft of ACDS was developed. In 2015, the draft concept of the ACDS was finalized following the recommendations made during the Forty-seventh Meeting of the SEAFDEC Council. Thus, the final draft ACDS Concept and draft info-graphic on the use of the ACDS for 18 scenarios of catch/trade flows into and or among the AMSs was developed. To ensure that ACDS is applicable and beneficial to the relevant stakeholders, namely: operators of fishing vessels, suppliers, seafood processors for export and traders who export and transship, SEAFDEC convened the Stakeholders’ Consultation in March 2016 with the objective of introducing the concept and compiling their views for further development of the appropriate system of ACDS for both electronic and manual systems to cover the requirements of the SEAFDEC Member Countries. Hereinafter, SEAFDEC was also asked to develop the electronic system of ACDS that should involve not only the commercial fisheries but also to take into consideration support to small-scale fisheries.

In addition, the Forty-ninth Meeting of the SEAFDEC Council on April 2017 suggested that the eACDS should be developed in harmony with other existing catch documentation schemes to ensure that this would be acceptable to the EU and US Presidential Task Force, and thus, enhance trading of fish and fishery products from the Southeast Asian region. The SEAFDEC Council also endorsed Brunei Darussalam as a pilot testing country for the eACDS. In this connection, the ACDS concept was also endorsed by the Twenty-fifth ASEAN Sectoral Working Group on Fisheries (ASWGFi) in May 2017, and the concept was also adopted by the Thirty-ninth AMAF Meeting in the same year.

When SEAFDEC initiated the eACDS implementation in Brunei Darussalam as a pilot country, series of consultations and on-site training sessions on the use of eACDS by relevant stakeholders were conducted in collaboration with the Department of Fisheries (DOF) of Brunei Darussalam. Moreover, Viet Nam, Myanmar and Malaysia also requested to introduce the eACDS in their respective countries, and SEAFDEC then supported the introduction of the eACDS in these countries.

II. PROGRESS ON IMPLEMENTATION OF eACDS

2.1 Adding user friendly functions of eACDS application

Application of the eACDS was started in 2017 in Brunei Darussalam as a pilot site. The eACDS is an application software that links all information and data in the supply chain from point of catch to consumer. The eACDS consists of two applications;

- 1) *Web-based application* which is used for: a) port-out permission and issuance of initial Catch Declaration (CD) to fishing master, b) port-in permission, including catch weight and species verification, and issuance of the CD to the fishing master, c) issuance of Movement Document (MD), and d) requirement of Catch Certification (CC) and issuance of CC
- 2) *Mobile application* is developed for the comfort of users, and consists of two parts: a) catch reporting at sea which should be accomplished by the master fisherman, and b) purchasing fish which should be done by buyers

To enhance the eACDS application to be more user-friendly, additional features of the application were added in 2019. These are:

- 1) *Dashboard for manager*: often displayed on a web page and linked to a database that allows the report to be constantly updated, e.g. number of fishing vessels requesting for port in and port out, warning for expired dates of fishing licenses, amount of catch by fishing gear and by species

- 2) *Catch report at sea by offline technology*: accomplished at sea even when internet signal is not available, and where fishermen can do the recording and keep catch data in their mobile phones until internet signal is available when they can send out the necessary data
- 3) *Transshipment session* (for some countries, e.g. Viet Nam and Myanmar): developed for transferring of the catch from fishing vessels to carriers using QR codes, etc.
- 4) *Tracking for vessels on fishing operation*: for recording the position of fishing vessels' operations by using GPS of mobile phones when internet signal is not available of which the fishing vessels tracking record is sent together with the catch report, and enables the Fishery Officers to check the fishing grounds and navigation routes of fishing vessels

2.2 Progress of eACDS implementation in AMSs

The implementation of the eACDS in the AMSs involves five process activities (status), as follows:

1. *Introduction activities*: the eACDS system including its structure and functions is demonstrated to relevant authorities and stakeholders in requesting countries
2. *Baseline survey and situation analysis*: baseline survey and analysis of the situation are carried out and introduced to relevant authorities, especially the process of issuing CDs, MDs, and CCs in each country as well as identification of the Key Data Elements (KDEs) which are discussed with the representatives from each country to obtain cooperation in gathering the necessary KDEs
3. *Application development and training for relevant users*: the eACDS application is developed and modified to take into consideration the context of each implementing country
4. *Testing the system by relevant users*: the eACDS is tested and implemented by relevant users, and if any problems or requests are identified by relevant users from management authorities, master fisherman, fishing vessel owns, buyers, and processors, the application is modified or in some cases functions are added, and then the relevant users are re-trained on the use of the enhanced application
5. *eACDS system transfer*: during the testing phase, all data are stored on the SEAFDEC cloud server, and when testing and implementing the system by relevant users is completed, eACDS system and the database are transferred to each country for their respective maintenance and expansion

At present, status of implementation of the eACDS in Brunei Darussalam is at the testing stage by relevant users, while the status in Viet Nam, Myanmar and Malaysia is at developing stage of the application and training of relevant users. In addition, SEAFDEC has also introduced the eACDS in Cambodia. The status of the activities in each country is shown below:

Brunei Darussalam

Since the pilot testing of the eACDS was launched in Brunei Darussalam in June 2017, series of consultations and on-site training sessions on the use of eACDS by relevant users were conducted in collaboration with the Department of Fisheries (DOF) of Brunei Darussalam. Presently, the eACDS system is on the process of testing and implementing by relevant users.

Following the results of the monitoring and testing of the eACDS application, the system was improved and adjusted to support relevant users with more user-friendly features were introduced, such as dashboard for manager and catch reporting at sea by offline technology, and re-training of relevant users was implemented in 2019.

Viet Nam

Based on the proposal of the representative from Viet Nam during the Fortieth Meeting of the Program Committee of SEAFDEC in November 2017, for SEAFDEC to also support Viet Nam in the development of a system to apply the eACDS for marine fishery products, the eACDS system was introduced to all relevant stakeholders in Viet Nam, including the officers of the Directorate of Fisheries (D-Fish). Discussions on initial planning and cooperation with D-Fish for the eACDS implementation through the preparation of KDEs for eACDS database development and selection of pilot areas were conducted in 2018. Four fishing ports, namely: Phan Thiet Fishing Port, Lagi Fishing Port, Phu Hai Fishing Port, and Phan Ri Cua Fishing Port were identified, and a total 50 fishing vessels would participate in this activity in Binh Thuan Province as the project site.

Presently, the eACDS system is on the process of developing the application for Viet Nam, and training of relevant users. In 2019, several activities were implemented in Binh Thuan Province, Viet Nam as a project

site, such as development of the eACDS application, verification of eACDS application, and on-site training on the use of eACDS application on web-based/mobile for officers and stakeholders, development of catch report at sea by offline technology as well as development of electronic catch certifications in Viet Nam; Catch Declaration (CD), Movement Document (CD), Statement of Catch (SC), and Catch Certification (CC).

Myanmar

During the Fiftieth Meeting of the SEAFDEC Council in March 2018, the Council Director for Myanmar proposed for the strengthening of regional cooperation to combat IUU fishing by supporting the implementation of the eACDS. To follow up on this proposal, the introduction of eACDS system was conducted for all relevant stakeholders in Myanmar and the Department of Fisheries (DOF) of Myanmar through visit and discussions on the initial planning and cooperation with DOF Myanmar for eACDS implementation through preparation of KDEs for the eACDS database development and selection of pilot areas. Three fishing ports were identified, namely: Aung Phyo Myat Jetty, Ei Phyo Yanada Jetty, and Ngwe Pinle Jetty, and 100 vessels would participate in this activity in Yangon as the pilot site.

Presently, the eACDS system is in the process of developing the application and training of relevant users. In 2019, the KDEs were collected to develop the eACDS database and application. Moreover, verification of the eACDS application in the part of Port In-Port out was also conducted in collaboration with the DOF of Myanmar.

Malaysia

During the Forty-first Meeting of the Program Committee of SEAFDEC in November 2018, the representative from Malaysia requested SEAFDEC to consider the proposal for Malaysia to serve as a project site for eACDS implementation. Two pilot sites have been identified in States of Kelantan and Kuantan with a total of 30 vessels participating in the activities as the pilot project.

In 2019, the SEAFDEC discussed the initial plans and cooperation with DOF Malaysia through the conduct of baseline survey and analysis including collecting the KDEs for the eACDS database development. Moreover, verification of the development of the eACDS application in the part of Port In-Port out was also conducted. Presently Malaysia is in the process of developing the application and training for relevant users.

Cambodia

As requested by the representative from Cambodia during the SEAFDEC Program Committee Meeting in November 2019 for supporting and implementing the eACDS in Cambodia, the workshop on introduction of eACDS application was conducted in February 2020 for the Fisheries Administration and relevant agencies in Phnom Penh, Cambodia. The workshop discussed the available data of fisheries, engagement of authorities, rules and regulations in Cambodia, in addition to introduction of eACDS application including demonstration of eACDS application.

2.3 Participation in workshops/meetings

In 2019, SEAFDEC staff participated in several international or regional workshops/meetings to acknowledge and promote the eACDS concept and system, as well as introduce the eACDS application at the workshops/meetings, *e.g.* International Conference on Fisheries Engineering 2019 (21-24 September in Japan), East Asia Summit Workshop on Maritime Cooperation: Sustainable and Responsible Fisheries Management (17-19 November in Philippines), Fourth Symposium on the ASEAN Single Window: the Way Forward and Exchanging Fisheries Catch Documentation and Traceability Information through the ASW (24-25 June in Thailand), 1st and 2nd ASEAN Meeting on Combating IUU Fishing in Partnership with EU (1st :4-5 April and 2nd :13-14 December in Thailand), USAID Ocean-SEAFDEC Regional eCDT Technical Guidance Workshop (2-4 December in Thailand), The Thirty-fourth Session of the Governing Council of INFOFISH (16-19 December in Republic of Maldives), International Special Seminar on Marine Eco-label Japan (26 November in Thailand).

III. FUTURE PLAN FOR EACDS IMPLEMENTATION

SEAFDEC wishes to continue the coordination, facilitation, development, and expansion of eACDS with the AMSs, particularly with Brunei Darussalam, Viet Nam, Malaysia, Myanmar, and other requesting countries (*e.g.* Cambodia).

The desirable tentative plan of implementing the eACDS activities is as follows:

- 1) Brunei Darussalam: eACDS system with database transfer during early 2021
- 2) Malaysia, Viet Nam and Myanmar: eACDS system with database transfer by the next 2 years
- 3) Other requesting countries: eACDS system with database transfer by the next 5 years.

However, only JTF budget could continue to support the eACDS activities within limited budget during the next 5 years at the moment. SEAFDEC should therefore make efforts to obtain funds from other donors to support the eACDS activities in order that SEAFDEC and the Member Countries could realize results within the desirable tentative plan of implementing the eACDS activities.

List of eACDS Implementation Activities in 2019

Date	Country	Activity
Brunei Darussalam		
28-31 January 2019	Brunei Darussalam	Re-training on the Use of eACDS on Web-based and Mobile Applications (Updated Version)
21-24 October 2019	Brunei Darussalam	Training on the use of the eACDS application in part of “the Mobile Application: Catch Reporting at Sea by Fishing Master” (Offline Version)
Malaysia		
21-25 April 2019	Malaysia	Consultation visits for initial discussion and gathering KDEs for development of eACDS system in Malaysia
17-21 June 2019	Malaysia	Following up and discussion on KDEs and Plan of Implementation in the 2 nd Pilot Site with DOF and Relevant Agencies
11-14 November 2019	Malaysia	Discussion and verification of KDEs on the Use of eACDS Application in the Part of “Port In and Port Out” for DOF Officers
16-20 December 2019	Malaysia	Workshop on Coordination between Malaysian Agencies for Implementation of eACDS
Myanmar		
4-7 February 2019	Myanmar	Consultation visit for initial discussion and gathering KDEs for development of eACDS system in Myanmar
30 July-2 August 2019	Myanmar	Discussion and gathering of Key Data Elements (KDEs) for development of eACDS system
9-13 December 2019	Myanmar	Verification of KDEs and Training on the Use of eACDS Application in the Part of “Port In and Port Out” for DOF Officers
Viet Nam		
25-28 March 2019	Viet Nam	Consultation visit for initial discussion and gathering of KDEs for development of eACDS system in Viet Nam
8-12 July 2019	Viet Nam	Following up on KDEs and discussion on Plan of eACDS Implementation with the Sub Directorate of Fisheries (D-Fish) in Binh Thuan Province, Viet Nam
12-16 August 2019	Viet Nam	Training on the Use of eACDS application for Fishery Officers and Fishermen (Part I)
26-30 August 2019	Viet Nam	Training on the Use of eACDS application for Fishery Officers and Fishermen (Part II)
9-13 September 2019	Viet Nam	Training on the Use of eACDS application for Fishery Officers, Fish Buyers and Fish Processors
7-11 October 2019	Viet Nam	Training on the Use of eACDS Application in Statement of Catch (SC) Part for Fishery Officers

Annex 10

PROGRESS ON REGIONAL COOPERATION TO SUPPORT THE IMPLEMENTATION OF THE PORT STATE MEASURES IN THE ASEAN REGION

EXECUTIVE SUMMARY

Regarding the Regional Cooperation for Supporting the Implementation of Port State Measures (PSM) in the ASEAN Region as suggested by the Forty-eighth Meeting of the SEAFDEC Council in April 2016, the Training Department of the Southeast Asian Fisheries Development Center (SEAFDEC/TD) in collaboration with the ASEAN Member States (AMSs) and partner organizations conducted the “Workshop on Regional Cooperation for Implementation of PSM to Improve Fisheries Management and Reduce Illegal, Unreported and Unregulated (IUU) Fishing in Southeast Asia” in 2016 and the “Workshop on Capacity Building to Support the Implementation of PSM for Fishery Managers” in 2018. The needs of AMSs on the issues related to PSM were clarified and the necessary actions required for AMSs on PSM were recorded. In July 2019, the SEAFDEC/TD organized the “Regional Training on Port State Measures (PSM) Implementation for Inspectors in Southeast Asia” in collaboration with partner organizations, such as the Department of Fisheries (DOF) Thailand, Australian Fisheries Management Authority (AFMA), Food and Agriculture Organization of the United Nations (FAO), National Oceanic and Atmospheric Administration (NOAA) and United States Agency for International Development (USAID), for AMSs to better understand the implementation of PSM and enhance the knowledge, skills, and experience in the inspection to support the PSM and port control implementation at national level.

In the effective implementation of PSM, continued efforts with AMSs and partner organizations are maintained. Questionnaires to update the needs of actions for implementing PSM in the region was sent to AMSs in January 2020 in preparation for the “Regional Technical Consultation on Development and Improvement of Regional Tools for Combating IUU Fishing in Southeast Asia” to be organized in 2020.

REQUIRED CONSIDERATION BY THE COUNCIL

- To take note of the progress of work on PSM undertaken by TD; and
- To provide advice on required technical assistance by TD (in collaboration with other organizations) to strengthen the implementation of PSM in the AMSs.

I. INTRODUCTION

Referring to the FAO’s International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) adopted in 2001, in which the requirements for PSM are included, FAO has been working on the PSM to combat IUU fishing including identifying the needs for human resources development to implement the PSM while developed as minimum standards - an “FAO Voluntary Model Scheme on Port State Measures” to combat IUU fishing in 2004. Later, the FAO Conference adopted the Resolution 12/2009 approving the FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA), as a legally binding instrument in 2009. The Objective of the PSMA is to “prevent illegally caught fish from entering international markets through ports.” Port State needs to take the action on the restriction of entry into port, use of the port, access to port services, in addition to the inspection, and other enforcement activities are also mentioned in the agreement. Taking into account the importance of seafood products from Southeast Asia to the world markets, the trade-in and -out are some of the important activities. To avoid any impact on trade as well as prevent the entry of IUU fish and fishery products either from international or intra-regional trade, the implementation of PSM is therefore needed taking into account other existing regional management tools developed under the ASEAN-SEAFDEC Collaborative Framework, such as ASEAN Catch Documentation Scheme, Regional Fishing Vessels Record - 24 meters in length and over (RFVR-24), ASEAN Guidelines to prevent the entry of IUU products into the supply chain, *etc.* The implementation of PSM requires inter-agency as well as regional and international cooperation. There are several actions needed as mentioned in the provisions in which port States need to consider their legal instruments to comply with PSM. Based on the technical consultations on the implementation of PSM by AMSs, the results showed that many AMSs have their limited human resource capacities to implement the PSM, while many foreign vessels are not only from

outside the ASEAN region such as high-sea or Regional Fisheries Management Organizations (RFMOs) areas but also vessels among the AMSs. In 2015, SEAFDEC, therefore, proposed a regional approach to support AMSs for the implementation of PSM and effective management through the harmonization and cooperation in Southeast Asia.

At the 48th Meeting of SEAFDEC Council held in April 2016, “Regional Cooperation for Supporting the Implementation of Port State Measures in the ASEAN region” was suggested. In response to the Council’s recommendation, SEAFDEC in collaboration with AMSs and partner organizations conducted relevant activities, such as the “Workshop on Regional Cooperation for Implementation of Port State Measures to Improve Fisheries Management and Reduce IUU Fishing in Southeast Asia” in 2016 and the “Workshop on Capacity Building to Support the Implementation of PSM for Fishery Managers” in 2018.

II. RECOMMENDATION AND SUGGESTION FROM SEAFDEC COUNCIL MEETING

The 51st SEAFDEC Council Meeting held in March 2019 in Surabaya, Indonesia, recommended that SEAFDEC should continue to support AMSs for their capacity building in the PSM implementation and encouraged SEAFDEC to continue collaborating with partner organizations in strengthening national human resource capacities for Port Inspectors to support the implementation of the PSM in the AMSs.

III. PROGRESS OF REGIONAL COOPERATION ON PSM

1) The Regional Training on Port State Measures Implementation for Inspectors in Southeast Asia

Referring to the recommendation of the 51st SEAFDEC Council Meeting and the SEAFDEC’s implementation plan on capacity building to support the implementation of PSM in the region, “the Regional Training on Port State Measures Implementation for Inspectors in Southeast Asia” in collaboration with partner organizations, such as the Department of Fisheries (DOF) Thailand, Australian Fisheries Management Authority (AFMA), FAO, National Oceanic and Atmospheric Administration (NOAA) and United States Agency for International Development (USAID), was organized from 22 to 26 July 2019 at SEAFDEC/TD, Samut Prakan, Thailand. There were forty participants (11 women and 29 men) who engage in and conduct PSM and/or port control activities at inspection level from AMSs excluding Lao PDR. The training focused on updating the current situation on inspection activities for port control and PSM in AMSs through the information on the implementation of PSM inspection provided by our partner organizations. The training also provided an opportunity to observe the PSM inspection for tuna carrier vessels at the port. In the end, the participants were expected to better understand the implementation of PSM and enhance their knowledge, skills, and experience in the inspection to support the PSM and port control implementation.

2) Updating Needs of Actions for Implementation of PSM in the Region

Based on the recommendations on regional cooperation on the PSM implementation at the “Workshop on Regional Cooperation for Implementation of Port State Measures to Improve Fisheries Management and Reduce IUU Fishing in Southeast Asia” held in November 2016 and to update information on the status of regional cooperation, questionnaires on the needs of actions for the implementation of PSM in the region was prepared and sent to AMSs in January 2020. The results of questionnaires will be discussed in “the Regional Technical Consultation on Development and Improvement of Regional Tools for Combating IUU fishing in Southeast Asia” to be organized in 2020.

3) Collaboration with Other Partner Organizations for Supporting the PSM Implementation in ASEAN

SEAFDEC collaborated with partner organizations such as DOF Thailand, AFMA, FAO, NOAA and USAID in the implementation of PSM. Resource persons from our partner organizations attended “The Regional Training on Port State Measures implementation for Inspectors in Southeast Asia” in July 2019. Moreover, SEAFDEC coordinated AMSs’ participation in the “FAO’s Regional PSMA Coordination Meeting for Asia” in Seoul, the Republic of Korea, originally scheduled on 23-27 March 2020 (*due to the COVID-19 outbreak, the Meeting was postponed*), to discuss and update the needs of actions for the implementation of PSM in the region. In the effective implementation of PSM, continued efforts with AMSs and partner organizations are maintained.

Over the years, SEAFDEC/TD has implemented the PSM-related activities to further enhance national capacities in the AMSs through the organization of meetings and workshops in cooperation with the FAO/HQ. FAO invited AMSs and SEAFDEC regularly to FAO's global and regional meetings on PSM and participated in relevant SEAFDEC meetings/workshops as resource person to provide technical support. SEAFDEC will continue to closely work with FAO in the effective implementation of PSM to combat IUU fishing in Southeast Asia.

Annex 11

PROMOTION OF THE IMPLEMENTATION OF THE REGIONAL PLAN OF ACTION FOR THE MANAGEMENT OF FISHING CAPACITY

I. EXECUTIVE SUMMARY

The issue of managing fishing capacity has been raised quite recently in reference to growing concern about the spreading phenomenon of excessive fishing inputs and overcapitalization in regional or world fisheries. The issue is essentially one of having too many vessels or excessive harvesting power in a growing number of fisheries. The existence of excessive fishing capacity is largely responsible for the degradation of fishery resources, for the dissipation of food production potential and for significant economic waste. This manifest itself especially in the form of redundant fishing inputs and the overfishing of most valued fish stocks.

The ultimate objective of fishing capacity measurement is to provide information for the development of a management strategy that will ensure that capacity of targeted fishery is moving in the right direction. In this regard, it is important to estimate the magnitude of the difference between current and target capacity to determine the existence of overcapacity (or undercapacity), the severity of the problem and the appropriate steps and path that can be taken to bring fishing capacity in line with the long-term target.

The International Plan of Action on Fishing Capacity was adopted by COFI in February 1999, and further discussed by the FAO Ministerial Meeting on Fisheries in March 1999. The Ministers declared to "*attach high priority to the implementation of the International Plan of Action for the Management of Fishing Capacity... and on putting into place within the framework of national plans, measures to achieve a balance between harvesting capacity and available fisheries resources.*"

For the Southeast Asia, SEAFDEC in collaboration the ASEAN Member States came out with the Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity) and was endorsed by the 24th Meeting of the ASEAN Sectoral Working Group on Fisheries (ASWGFi) in June 2016, followed by the 38th Meeting of the ASEAN Ministers of Agriculture and Fisheries (AMAF) in October 2016, respectively.

So far under SEAFDEC platform, only purse seine fishery was examined which only targeted for pelagic resources while limited assessment was conducted for demersal resources. It was recommended that both assessments are vital to cover the most important and major fisheries in the region.

Malaysia and MFRDMD have taken initiative to propose a new project on "Implementation and Assessment of Fishing Capacity and Zoning System for Southeast Asia" during the SEAFDEC Program Committee Meetings (PCM) in 2018 and 2019; however it was not supported due to limited funding available. It should be noted that a dedicated or specific project is required in the future to ensure compliance with the RPOA-Capacity expectations.

II. REQUIRED CONSIDERATION BY THE COUNCIL

- To consider the ways forward for the implementation of the management of fishing capacity for Southeast Asia.

Annex 12

PROGRESS ON THE IMPLEMENTATION OF THE REGIONAL PLAN OF ACTION ON SUSTAINABLE UTILIZATION OF NERITIC TUNAS IN THE ASEAN REGION

I. BACKGROUND

Neritic tuna is one of the important fisheries commodity in the ASEAN region, not only it provides food for the peoples but also generate employment and earning foreign exchange for country. In 2014, the neritic tuna contributed approximately 40% of the region's total marine tuna production, with the value of around USD 1 million (SEASOFIA 2017). Over the last decade, tuna industry was affected so much due to unstable supply of raw materials especially for canning industries around this region. In order to find a good solution to this problem, SEAFDEC/MFRDMD in collaboration with SEAFDEC Secretariat and SEAFDEC/TD were assigned to study on stock status and provide management options to exploit these resources sustainably.

The series of the consultations on neritic tunas were conducted by SEAFDEC with its Member Countries to address the issues and concerns of neritic tuna resources in Southeast Asia waters (e.g. inadequate management of neritic tunas, insufficient information on the status and trend of neritic tunas). To promote the sustainable utilization of neritic tunas in the region, SEAFDEC and its Member Countries, with the financial support of Sweden, developed and finally adopted the Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region by the 47th Meeting of the SEAFDEC Council in 2015 and later endorsed by the 23rd Meeting of the ASEAN Sectoral Working Group on Fisheries and by SOM-37th AMAF in 2015, respectively.

The Scientific Working Group on Stock Assessment on Neritic Tunas in the Southeast Asian Region (SWG-Neritic tunas) was established in 2014 and the 1st Meeting of SWG-Neritic tunas held in the same year. Since then, five (5) SWG Meetings were conducted by the SEAFDEC-Sweden Project. During the 1st Meeting, the SWG developed the draft Terms of Reference (TOR) for SWG-Neritic tunas and finally the draft TOR was adopted at the 47th Meeting of the SEAFDEC Council in 2015, as shown in the <http://www.seafdec.or.th/neritic-tunas/tor.php>. The SWG comprises two scientists of each AMS and technical assistance from SEAFDEC. The scope of work of the SWG cover data collection, genetic study and other relevant activities to support stock assessment on neritic tunas and mackerel species (seerfish) for management of neritic tunas in Southeast Asian waters.

The SWG conducted the series of the stock and risk assessments on neritic tunas in Southeast Asia waters namely: for longtail tuna (*Thunnus tonggol*) and kawakawa (*Euthynnus affinis*) in 2014 and for narrow-barred spanish mackerel (*Scomeromorus commerson*) and Indo-Pacific king mackerel (*S. guttatus*) in 2018-2019, which were reported at the previous Council meetings. Based on earlier discussion and recommendations, many SEAFDEC Member Countries had started improving their statistical system to comply with data requirement for better data analyses on neritic tuna resources.

II. PROGRESS OF THE IMPLEMENTATION OF THE RPOA-NERITIC TUNAS IN 2019-2020

2.1 Preliminary Results of the Stock and Risk Assessment of Longtail Tuna and Kawakawa

Based on the discussion at the 5th Meeting of the SWG-Neritic tunas in January 2019, the SWG-Neritic tunas agreed on the proposed to conduct the 2nd stock and risk assessment of longtail tuna (LOT) and kawakawa (KAW). (the 1st Assessment conducted in 2016). Therefore, on 10-15 February 2020, SEAFDEC organized the Practical Workshop on Stock and Risk Assessments of Longtail (LOT) Tuna and Kawakawa (KAW) in the Southeast Asian Waters at SEAFDEC/TD in Samut Prakan, Thailand. Attended by representatives from the SEAFDEC Member Countries, namely: Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, Thailand, Viet Nam, and observers from the Research Institute of Far Seas Fisheries (Japan), as well as representatives from SEAFDEC and resource persons. The Workshop was aimed at promoting sustained utilization of neritic tunas in the Southeast Asian waters and also at sharing the data compiled and quality control techniques and the discussion focused on the updates on the stock and risk assessments of LOT and KAW.

The practical training sessions are deemed necessary to confirm and verify the status of stocks of neritic tunas in the waters of Southeast Asia using data from the respective countries and in order that concerned technical persons from the region could gain experience in the assessment methodologies using their respective compiled data. Thus, during the practical workshop, the participants practiced the specific software for stock assessment analysis, e.g. CPUE standardization, ASPIC, Kobe Plot I-II, and risk assessment using the available data and present the results of the stock assessment analysis. The Workshop also came up with recommendations on the management of neritic tunas in the Southeast Asian waters. Based on the initial data analysis, the results has shown that KAW is over exploited for Indian Ocean side and quite safe for Pacific side, while for LOT are in safe zone in both Indian Ocean and Pacific Ocean. The final results of stock and risk assessments of LOT and KAW are being finalized and will be reported for consideration during the 6th Meeting of Scientific Working Group on Neritic Tunas in July 2020 to be hosted by SEAFDEC/MFRDMD.

2.2 Proposed the Revision Terms of Reference (TOR) of Scientific Working Group on Neritic Tunas in the Southeast Asian Region

The first TOR of Scientific Working Group on Neritic Tunas in the Southeast Asian Region (SWG-Neritic tunas) was adopted in 2015 at the 47th Meeting of SEAFDEC Council. The scope of Work of the SWG-Neritic tunas covers data collection, genetic study and other relevant activities to support stock assessment on neritic tunas and mackerel species (seerfish) for management of neritic tunas in Southeast Asian waters. The SWG-Neritic tunas perform the task in providing technical/scientific advice particular on the current status of neritic tuna fisheries resources and policy consideration needs to the SEAFDEC Council for the improvement of the fisheries management in Southeast Asia.

Why do we need to revise TOR?

- The present TOR (2015), some parts of the TOR indicated to the SEAFDEC-Sweden Project, which the Project was completed in 2019. It should be taken out the context of the “SEAFDEC-Sweden Project”
- With reference to the previous suggestions made by the Council at its 50th Meeting in 2018, sought out the possibility to expand the work of the SWG to cover small pelagic species, e.g. anchovies, sardines and scads. However, the directive given by the Council at the 51st Meeting that the SWG-Neritic tunas should focus on neritic tuna species rather than on other small pelagic species. While noting the completion of the SEAFDEC-Sweden Project in 2019, MFRDMD will carry out the new Project on “Fisheries Management Strategies for Pelagic Fish Resources in the Southeast Asian Region”, which it will continue the stock study of neritic tunas and small pelagic species in the Southeast Asian waters. In order to support the regional initiatives and maintain the momentum of existing SWG and its on-going activities and facilitate the activities of the new Project, to cover both neritic tuna and small pelagic species, therefore, it is deemed necessary to revise the 2015 TOR. The proposed revision of the TOR as shown in *Appendix 1*.

2.3 New Project on Fisheries Management Strategies for Pelagic Fish Resources in the Southeast Asian Region (2020-2024)

At the 42nd Meeting of the SEAFDEC Program Committee in November 2019, the Committee supported the new Project of MFRDMD on “Fisheries Management Strategies for Pelagic Fish Resources in the Southeast Asian Region” which would be started from 2020 until 2024. The Project is supported by the JTF-6 II. The aim is to evaluate fisheries resources and sustainable management that covers small pelagic species and neritic tunas in the Southeast Asian waters. This Project also inquires the clarification of genetic structure of the targeted one neritic tuna species as well as develops its life history through age determination analysis (otolith analysis). Furthermore, two-year life history study by looking on otolith of Kawakawa is progressing to support population study on these important neritic tuna species. Results on otolith study were expected to be released by next year 2021.

In addition, during the 42nd Meeting, it was suggested MFRDMD also to compile the existing management measures for small pelagic species at national level when available and to conduct literature review of the

existing information on stock status and biology for neritic tunas from the Working Party on Neritic Tunas of IOTC.

Under this new Project on “Fisheries Management Strategies for Pelagic Fish Resources in the Southeast Asian Region”, MFRDMD is plan to organize the 6th Meeting of the SWG-Neritic tunas in July 2020 in Kuala Lumpur to discuss on latest data analyses on neritic tuna and to confirm population structure result based on microsatellite DNA study to obtain information of the stock structure of longtail tuna.

III. REQUIRED CONSIDERATION BY THE COUNCIL

- To take note on the progress of the activities that support the implementation of the RPOA-Neritic tunas in the ASEAN region;
- To endorse the proposed revision of the Terms of References (TOR) of SWG; and
- To provide advice and suggestions for further work on neritic tunas and small pelagic species.

**PROPOSED REVISION OF THE TERMS OF REFERENCE OF
THE SCIENTIFIC WORKING GROUP FOR STOCK ASSESSMENT ON NERITIC TUNAS
IN THE SOUTHEAST ASIAN REGION**

(for adoption by the 52nd Meeting of the SEAFDEC Council)

I. INTRODUCTION AND RATIONALE

Refers to the Expert Group Meeting on Regional Plan of Action on Sustainable Utilization of Neritic Tuna Resources in the Southeast Asian Waters conducted on 18-20 June 2014 in Krabi Province, Thailand, that, during the workshop, one of the important outputs was the need to establish Scientific Working Group on Stock Assessment for neritic tunas in the Southeast Asian waters herein after called “SWG-Neritic tunas”. In this connection, SEAFDEC Member Countries namely Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, the Philippines, Thailand and Viet Nam nominated their delegations to work as members of the scientific working group since October 2014. To facilitate the work of Scientific Working Group, SEAFDEC formulated the Term of Reference (ToR) and finalized by all members of the SWG at the 1st Meeting of the Scientific Working Group on Neritic Tunas Stock Assessment in the Southeast Asian Waters, 18-20 November 2014 in Malaysia, and later adopted at the 47th Meeting of the Council in April 2015 (<http://www.seafdec.or.th/neritic-tunas/tor.php>). The objective of the ToR is to ensure that the regional cooperation from the ASEAN Member States (AMS) on the stock assessment of the neritic tunas can be effectively implemented by the SWG as well as SEAFDEC to continue support under the ToR framework after the end of the funded project. During the 50th Meeting of SEAFDEC Council in 2018, the Council suggested that the TOR of Scientific Working Group should expand to other shared stocks, such as anchovy, sardines, Indo-Pacific mackerels and also suggested SEAFDEC could continue the activities on the stock and risk assessments of neritic tunas that will be provided the results which undertaken in coordination with the relevant RFMOs. This TOR was revised based on the 2015 adopted TOR on SWG Neritic Tuna accommodating the suggestions from the 50th Meeting of SEAFDEC Council.

II. ROLE OF SWG-NERITIC TUNAS

The role of SWG is to provide technical/scientific advice particular on the current status of neritic tuna fisheries resources and policy consideration needs to the SEAFDEC Council for the improvement of fisheries management in Southeast Asia.

III. SCOPE OF WORK

SWG will cover data collection, genetic study and other relevant activities to support stock assessment on neritic tunas, mackerel species (seerfish), and the other important pelagic fishes for the management of neritic tunas and the other important pelagic fishes in Southeast Asian waters.

IV. TERMS OF REFERENCE OF THE SWG-NERITIC TUNAS

- To review and assess the current resource status of the neritic tuna and the other important pelagic fishes in the region;
- To provide scientific based recommendations on priority fisheries management issues which may include policy consideration, and coordinated fisheries management actions for sustainable utilization of neritic tunas and the other important pelagic fishes;
- To share the national catch and effort data/information including the biological data (if available) for regional stock assessment of the neritic tunas and the other important pelagic fishes;
- To identify the needs for human capacity requirements in Member Countries; and
- To coordinate with international/regional organizations, programs or projects concerned with fisheries management and sustainable use of fisheries resources in formulating advice.

V. COMPOSITION OF THE SWG-NERITIC TUNAS

The composition of the SWG-Neritic tunas is identified as follows:

a. **SWG-Neritic tunas:**

The SWG comprises at least two standing members representing the SEAFDEC Member Country by nomination with Four-year fixed tenure of members and possibility for reappointment.

b. **Chief Scientist(s):**

An interim Chief Scientist for stock assessment of neritic tunas shall be a stock assessment expert from MFRDMD. A work period of the Chief Scientist is depended upon the tenure of the study period as decided by the SWG.

c. **Chairperson:**

SWG-Neritic tunas shall be chaired by Chief MFRDMD and co-chaired by a representative of its Member Countries on an annual/biennial rotational basis following alphabetical in order.

d. **Resource persons/ Experts:**

SWG-Neritic tunas may identify and invite resource persons/experts from the Member Countries, ASEAN and other international/regional organizations to participate in SWG Meeting on an *ad-hoc* basis.

e. **Secretariat:**

MFRDMD ~~in collaboration with the SEAFDEC Secretariat~~ shall serve as a secretariat of the SWG meeting, as well as coordinate with the SWG members on the propose period and date of the meeting.

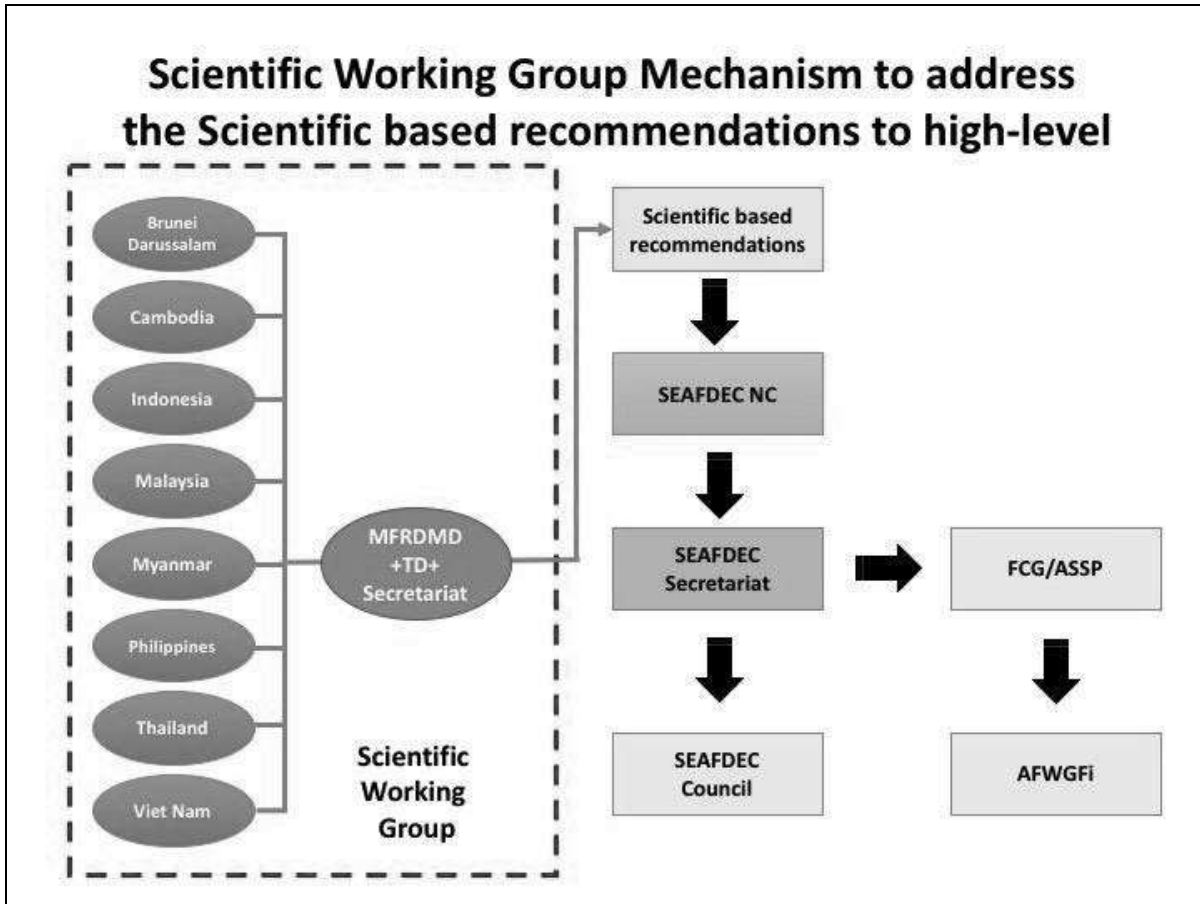
f. **Rapporteur:**

Secretariat of the meeting shall perform a Rapporteur of the SWG meeting in collaboration with the host country.

VI. NATURE OF SWG ACTIVITIES AND FINANCIAL ARRANGEMENTS

1. SWG is scheduled to meet at least once ~~a every other~~ year. The timing of the meeting(s) should be set in accordance with SEAFDEC annual working cycle before the SEAFDEC Program Committee Meeting.
2. Inter-sessional activities may be conducted as the need arises and subject to availability of funds.
3. The SWG meetings will be partially funded by relevant programs/projects of SEAFDEC Sweden Project managing by the secretariat of the working group. Under this condition, ~~annually~~ a certain amount of the money would be used for the meeting cost and participation of members from SEAFDEC ~~MFRDMD and Secretariat~~ to the SWG meetings; while the Member Countries would bear the cost for their participation to the SWG meetings starting from 2020.
4. The cost for attendance of the resource persons during SWG meeting (s) or during the inter-sessional activities should be from ~~SEAFDEC-Sweden project and extra budgetary sources under the responsible of the Secretariat~~ the relevant program/activity, while the cost for the experts/representatives from international/regional organizations will be shouldered by their respective organizations.
5. The cost for the inter-sessional activities will be funded by relevant programs/projects of SEAFDEC and/or extra-budgetary sources.
6. SEAFDEC ~~MFRDMD and the~~ Secretariat in collaboration with the Member Countries are responsible for sourcing extra-budgetary funds for SWG.
7. Based on SWG's advice, the SEAFDEC Council will decide on how such advice should be considered and followed-up for the next session including imparting the recommendations to the ASEAN through ASEAN Sectoral Working Group on Fisheries.

VII. MECHANISM TO CONVEY THE TECHNICAL/SCIENTIFIC ADVICE/RECOMMENDATION



Remarks: At the 2nd SWG-Neritic Tuna Meeting in RIMF, Hai Phong, Viet Nam, the meeting suggested that any Scientific based recommendations from the SWG meeting should send to NC for consideration and comments before further submission to Secretariat and the SEAFDEC Council.

List of the standing members of SWG-Neritic Tunas from 2014¹

SWG Name	Position	Address	Email
Brunei Darussalam			
❖ Mr. Matzaini Hj Juna	Head of Capture Fisheries Industry Development and Management Division	Department of Fisheries, Ministry of Primary Resources and Tourism Simpang 287-53, Jalan Peranginan Pantai Serasa, Muara BT 1728 Tel: +6732770066 Mobile: +6738878833 Fax: +6732770065	matzaini.juna@fisheries.gov.bn
❖ Mrs. Hajah Noorizan Hj Abd Karim	Researcher of Capture Development Division, Acheh	Department of Fisheries, Ministry of Primary Resources and Tourism Simpang 287-53, Jalan Peranginan Pantai Serasa, Muara BT 1728 Tel: +6732382493	noorizan_karim@fisheries.gov.bn
Cambodia			
❖ Mr. Suy Serywath (Chief Scientist)	Director, Fisheries Research and Development Institute	Fisheries Administration 186 Norodom Blvd, Sangkat Tonle Basac Khan Chamcar Mon, Phnom Penh CAMBODIA Tel. (855-12) 714 239 Fax: (855-23) 219 256	serywath@gmail.com
❖ Mr. Kao Monirith	Deputy Director, Marine Fisheries Inspectorate, Marine Fisheries Research and Development Institute	Fisheries Administration 186 Norodom Blvd, Sangkat Tonle Basac Khan Chamcar Mon, Phnom Penh CAMBODIA Tel. (855-12) 714 239 Fax: (855-23) 219 256	kaomonirith@yahoo.com
Indonesia			
❖ Mr. Khairul Amri (Chief Scientist)	Senior Researcher, Marine and Fisheries Research Institute	Agency of Marine and Fisheries Research and Development, Ministry of Marine Affairs and Fisheries Jl. Muara Baru Ujung Komplek Pelabuhan Perikanan Nizam Zachman, Jakarta, INDONESIA Tel: +62-8568020608 Fax: +62-21 64700929	Kh_amri@yahoo.com
❖ Mr. Thomas Hidayat (Senior Officer)	Researcher, Marine and Fisheries Research Institute,	Agency of Marine and Fisheries Research and Development, Ministry of Marine Affairs and Fisheries Jl. Muara Baru Ujung Komplek Pelabuhan Perikanan Nizam Zachman, Jakarta, INDONESIA Tel: +62-081806043030; Fax: +62-21 64700929	thomas.hidayat@yahoo.com hidayatthomas245@gmail.com

¹ List of the members of the SWG will be confirmed with the SEAFDEC Member Countries

SWG Name	Position	Address	Email
Malaysia			
❖ Mr. Mohd Noor bin Noordin (Senior Officer)	Head, Marine Aquaculture Section	Department of Fisheries Malaysia 1 st Floor, Podium 2, Block 4G2 Wisma Tani, Precinct 4 62628, Putrajaya Tel.: +6 03-8870 4618 Fax.: +6 03-8889 1749 Mobile: +6 012-678 4028	mnn@dof.gov.my
❖ Mr. Hj Samsudin bin Basir (Chief Scientist)	Senior Researcher, FRI Kg. Acheh,	Kompleks Perikanan Kg. Acheh, 3200 Sitiawan, Perak, Malaysia Tel.: +6 05-691 4752 Fax.: +6 05-691 4742 Mobile: +6 019-457 2978	samsudin@dof.gov.my
Myanmar			
❖ Dr. Htun Thein (Chief Scientist)	Assistance Director, Marine Fisheries Research and Development Bureau	Department of Fisheries, Marine Fisheries Research and Survey Unit, Building No. 36, Nay Pyi Taw, MYANMAR Tel.: +95 67 418534 Mobile: +95 95027889	htunthein.akyab@gmail.com
❖ Mr. Nay Myo Aye (Senior Officer)	Assistance Fisheries Officer	Ye Township, Regional Fishery Officer, Department of Fisheries Mon State Mobile: +95 9425355353	irnp.dof@gmail.com nyonyo.ye@gmail.com
Philippine			
❖ Mr. Noel C. Barut (Chief Scientist)	National Coordinator, National Stock Assessment Program	National Fisheries Research and Development Institute (NFRDI) Corporate 101 Bldg, 101 Mother Ignacia Avenue Quezon City, Metro Manila The PHILIPPINES Tel./Fax: +63 2-3725063	necbarut@gmail.com
❖ Ms. Grace V. Lopez	Aquaculturist II, Marine Fisheries Research Division Vertebrate Section,	National Fisheries Research and Development Institute (NFRDI) Corporate 101 Bldg, 101 Mother Ignacia Avenue Quezon City, Metro Manila Tel.: +63 2-765133(LOC. 607) Fax: + 63 2-725063	gmvlopez@yahoo.com
Thailand			
❖ Mrs. Praulai Nootmorn (Chief Scientist)	Director, Marine Fisheries Technology Research and Development Institute	Marine Fisheries Research and Development Bureau Kaset-Klang, Bang Khen, Bangkok 10900 THAILAND Tel.: +66 8 5070 6589	nootmorn@yahoo.com
❖ Ms. Pakjuta Khemakorn	Fishery Biologist, (Professional Level), Marine Fisheries Research and	Southern Marine Fisheries Research and Development Center, 79/1 Wichianchom Rd., Bo- Yang, Muang, Songkhla 90000	pakjuta@gmail.com

SWG Name	Position	Address	Email
	Development Bureau	THAILAND Tel.: 66 8 1896 4702	
Viet Nam			
❖ Mr. Pham Hung	Officer, Department exploitation and protection of fisheries resources	Department of Capture Fisheries and Resources Protection, Directorate of Fisheries 10 Nguyen Cong Hoon, BaDinh, Hanoi, VIET NAM Tel.: +84-983-804-039	hungfam83@gmail.com
❖ Mr. Nguyen Viet Nghia (Chief Scientist)	Deputy Director, Expert, Research Institute for Marine Fisheries	224 Le Lai, Hai Phong City VIET NAM Tel.: +84-982-728-365 Fax: +84-313-836-812	nvngghia@rimf.org.vn

Annex 13

**REVISED TERMS OF REFERENCE OF THE SCIENTIFIC WORKING GROUP
FOR STOCK ASSESSMENT ON NERITIC TUNAS IN THE SOUTHEAST ASIAN REGION**

(Adopted by the 52nd Meeting of the SEAFDEC Council)

I. INTRODUCTION AND RATIONALE

Refers to the Expert Group Meeting on Regional Plan of Action on Sustainable Utilization of Neritic Tuna Resources in the Southeast Asian Waters conducted on 18-20 June 2014 in Krabi Province, Thailand, that, during the workshop, one of the important outputs was the need to establish Scientific Working Group on Stock Assessment for neritic tunas in the Southeast Asian waters herein after called “SWG-Neritic tunas”. In this connection, SEAFDEC Member Countries namely Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, the Philippines, Thailand and Viet Nam nominated their delegations to work as members of the scientific working group since October 2014. To facilitate the work of Scientific Working Group, SEAFDEC formulated the Term of Reference (ToR) and finalized by all members of the SWG at the 1st Meeting of the Scientific Working Group on Neritic Tunas Stock Assessment in the Southeast Asian Waters, 18-20 November 2014 in Malaysia, and later adopted at the 47th Meeting of the Council in April 2015 (<http://www.seafdec.or.th/neritic-tunas/tor.php>). The objective of the ToR is to ensure that the regional cooperation from the ASEAN Member States (AMS) on the stock assessment of the neritic tunas can be effectively implemented by the SWG as well as SEAFDEC to continue support under the ToR framework. During the 50th Meeting of SEAFDEC Council in 2018, the Council suggested that the TOR of Scientific Working Group should expand to other species, such as anchovy, sardines, Indo-Pacific mackerels and also suggested SEAFDEC could continue the activities on the stock and risk assessments of neritic tunas that will be provided the results which undertaken in coordination with to the relevant RFMOs. This TOR was revised based on the 2015 adopted TOR on SWG Neritic Tuna accommodating the suggestions from the 50th Meeting of SEAFDEC Council.

II. ROLE OF SWG-NERITIC TUNAS

The role of SWG is to provide technical/scientific advice particular on the current status of neritic tuna fisheries resources and policy consideration needs to the SEAFDEC Council for the improvement of fisheries management in Southeast region.

III. SCOPE OF WORK

SWG will cover data collection, genetic study and other relevant activities to support stock assessment on neritic tunas, mackerel species (seerfish), and the other important pelagic fishes for the management of neritic tunas and the other important pelagic fishes in Southeast Asian waters.

IV. TERMS OF REFERENCE OF THE SWG-NERITIC TUNAS

- To review and assess the current resource status of the neritic tuna and the other important pelagic fishes in the region;
- To provide scientific based recommendations on priority fisheries management issues which may include policy consideration, and coordinated fisheries management actions for sustainable utilization of neritic tunas and the other important pelagic fishes;
- To share the national catch and effort data/information including the biological data (if available) for regional stock assessment of the neritic tunas and the other important pelagic fishes;
- To identify the needs for human capacity requirements in Member Countries; and
- To coordinate with international/regional organizations, programs or projects concerned with fisheries management and sustainable use of fisheries resources in formulating advice.

V. COMPOSITION OF THE SWG-NERITIC TUNAS

The composition of the SWG-Neritic tunas is identified as follows:

a. SWG-Neritic tunas:

The SWG comprises at least two standing members representing the SEAFDEC Member Country by nomination with Four-year fixed tenure of members and possibility for reappointment.

b. Chief Scientist(s):

An interim Chief Scientist for stock assessment of neritic tunas shall be a stock assessment expert from MFRDMD. A work period of the Chief Scientist is depended upon the tenure of the study period as decided by the SWG.

c. Chairperson:

SWG-Neritic tunas shall be chaired by Chief MFRDMD and co-chaired by a representative of its Member Countries on an annual/biennial rotational basis following alphabetical in order.

d. Resource persons/ Experts:

SWG-Neritic tunas may identify and invite resource persons/experts from the Member Countries, ASEAN and other international/regional organizations to participate in SWG Meeting on an *ad-hoc* basis.

e. Secretariat:

MFRDMD shall serve as a secretariat of the SWG meeting, as well as coordinate with the SWG members on the propose period and date of the meeting.

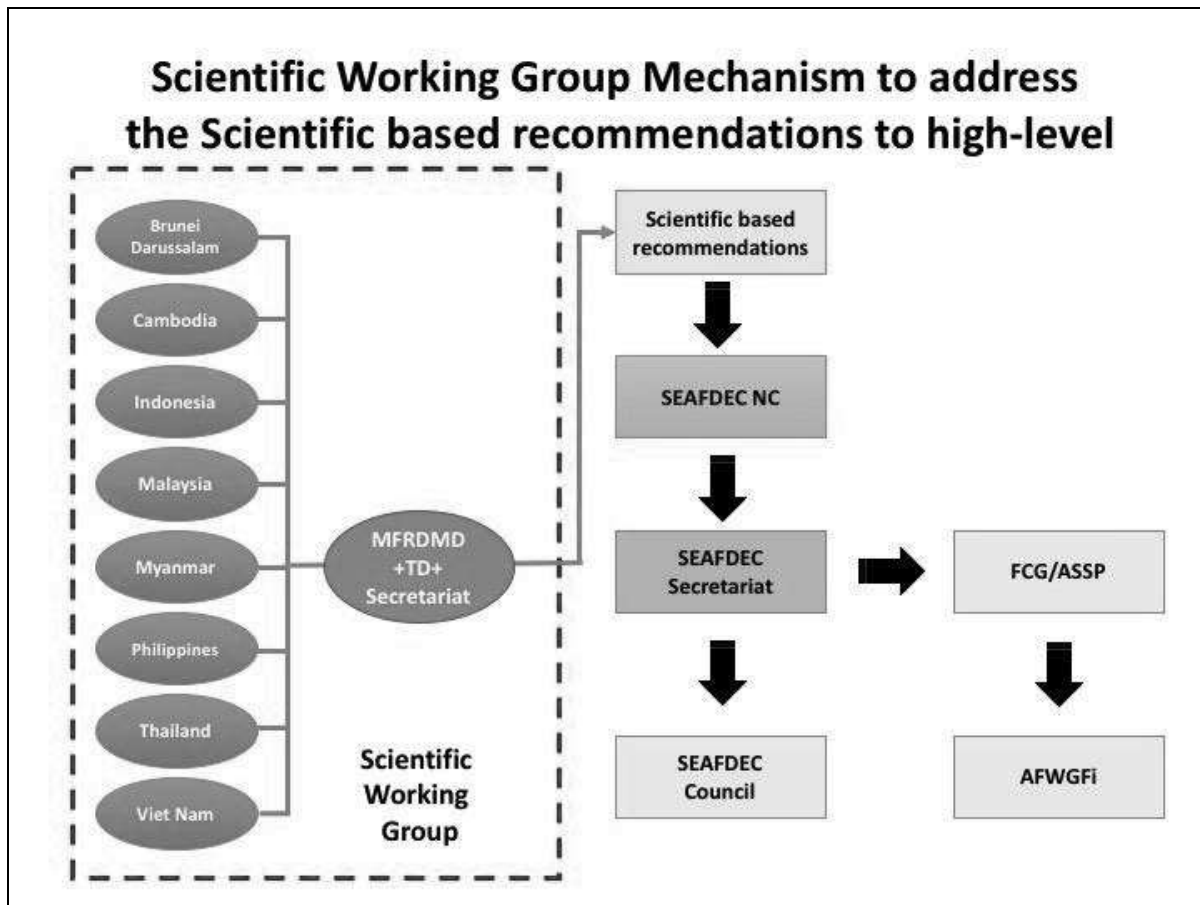
f. Rapporteur:

Secretariat of the meeting shall perform a Rapporteur of the SWG meeting in collaboration with the host country.

VI. NATURE OF SWG ACTIVITIES AND FINANCIAL ARRANGEMENTS

1. SWG is scheduled to meet at least once every other year. The timing of the meeting(s) should be set in accordance with SEAFDEC annual working cycle before the SEAFDEC Program Committee Meeting.
2. Inter-sessional activities may be conducted as the need arises and subject to availability of funds.
3. The SWG meetings will be partially funded by relevant programs/projects of SEAFDEC managing by the secretariat of the working group. Under this condition, a certain amount of the money would be used for the meeting cost and participation of members from SEAFDEC to the SWG meetings; while the Member Countries would bear the cost for their participation to the SWG meetings starting from 2020.
4. The cost for attendance of the resource persons during SWG meeting (s) or during the inter-sessional activities should be from the relevant program/activity, while the cost for the experts/representatives from international/regional organizations will be shouldered by their respective organizations.
5. The cost for the inter-sessional activities will be funded by relevant programs/projects of SEAFDEC and/or extra-budgetary sources.
6. SEAFDEC MFRDMD and the Secretariat in collaboration with the Member Countries are responsible for sourcing extra-budgetary funds for SWG.
7. Based on SWG's advice, the SEAFDEC Council will decide on how such advice should be considered and followed-up for the next session including imparting the recommendations to the ASEAN through ASEAN Sectoral Working Group on Fisheries.

**VII. MECHANISM TO CONVEY THE TECHNICAL/ SCIENTIFIC ADVICE/
RECOMMENDATION**



Remarks: At the 2nd SWG-Neritic Tuna Meeting in RIMF, Hai Phong, Viet Nam, the meeting suggested that any Scientific based recommendations from the SWG meeting should send to NC for consideration and comments before further submission to Secretariat and the SEAFDEC Council.

ASEAN GUIDELINES ON AQUATIC EMERGENCY PREPAREDNESS AND RESPONSE SYSTEMS FOR EFFECTIVE MANAGEMENT OF TRANSBOUNDARY DISEASE OUTBREAK IN SOUTHEAST ASIA

I. EXECUTIVE SUMMARY

The most serious problems faced by the aquaculture sector are diseases spread and introduced through movements of hatchery-produced stocks, new species for aquaculture, and the development and enhancement of the ornamental fish trade. During the 2012 and 2013 meetings of the SEAFDEC Program Committee, member country representatives conveyed concern regarding the outbreaks of EMS/AHPND and other transboundary diseases in the region and recognized the need for a concerted regional effort to address this. In response, the SEAFDEC Council, during its meeting on April 2014, suggested that aquatic animal health management, particularly the control and prevention of transboundary aquatic animal diseases, be included in the formulation of future programs of SEAFDEC and its partners in the region. Acknowledging the pressing need for sustained regional efforts to address disease problems in farmed aquatic animals, particularly on shrimps, SEAFDEC/AQD and the Department of Agriculture's Bureau of Fisheries and Aquatic Resources of the Philippines, with financial support from the Japan-ASEAN Integration Fund, convened the Regional Technical Consultation on EMS/APHND and other Transboundary Diseases for Improved Aquatic Animal Health in Southeast Asia from 22 to 24 February 2016 in Makati City, Philippines. The Consultation assessed the status of EMS/AHPND and other emerging diseases in farmed shrimps in ASEAN Member States; identified gaps, priority areas for research and development and potential collaborative arrangements; and formulated regional policy recommendations that centered on emergency preparedness and response systems (early warning, detection and response) for an effective management of aquatic animal disease outbreaks in the region.

Progress to date:

Considering the Government of Japan's strong commitment in supporting the initiatives related to enhancing food security and safety within ASEAN Member States, this consultation on aquatic emergency preparedness and response systems for effective management of transboundary disease outbreaks in Southeast Asia was approved for support by the Government of Japan through the Japan-ASEAN Integration Fund (JAIF) in January 2018.

The ASEAN Regional Technical Consultation on Aquatic Emergency Preparedness and Response Systems for Effective Management of Transboundary Disease Outbreaks in Southeast Asia (ASEAN RTC on AEPRS) was held on 20-22 August 2018 at Centara Grand at Central Plaza Ladprao in Bangkok, Thailand. A total of 71 participants including country representatives from AMSs, resource persons, private sectors of selected countries, and representatives from DOF-Thailand, SEAFDEC Secretariat and Aquaculture Department attended.

The ASEAN RTC on AEPRS comprised of three technical sessions: (1) ten country representatives presented current status of aquatic emergency preparedness and response systems concomitant to national laws, legislations, SOP's and aquatic animal health strategies, among others; (2) six resource persons presented the importance of aquatic emergency preparedness and response systems for effective management of transboundary disease outbreaks based on primary accounts documented at the global or regional level; and (3) workshop to identify gaps, policy recommendations, and priority areas for R&D collaboration. Through the collaboration of all sectors and institutions present during the RTC, the expected outputs had been met. The full report was presented to the SEAFDEC Councils at its 51st Meeting of SEAFDEC Council in March 2019 in Surabaya, East Java, Indonesia. Power point presentations of the participants are available at SEAFDEC/AQD website <http://www.seafdec.org.ph/2018/asean-rtc-on-aeprs/>. The Proceedings of the ASEAN RTC on AEPRS was finally launched during the SEAFDEC/AQD 46th Anniversary Celebration on 11 July 2019. E-copy of the Proceedings is available at the SEAFDEC/AQD website (<https://www.seafdec.org.ph/wp-content/uploads/2019/01/RTC-on-AEPRS-Proceedings.pdf>)

In addition, following the workshop, a Regional Technical Guidelines and Mechanism for Early Warning System for Aquatic Animal Diseases was drafted together with consultants. The Guidelines on Early

Warning System for Aquatic Animal Health Emergencies were reviewed by the Council following its endorsement *ad referendum* in 2019. It was then circulated to FCG/ASSP focal points for endorsement. Subsequently, the Guidelines was endorsed at the 41st AMAF Meeting on 15 October 2019 in Brunei Darussalam.

In this connection, the Completion reports and supporting documents on this project were also submitted to the proponents in Thailand.

To ensure the sustainability of the project, Phase 2 and Phase 3 are suggested. Following are excerpts from the Completion Report submitted to JAIF:

Regular meetings, more funding, and trust between stakeholders (*e.g.* government, research institutions, academe, the private sectors) in disclosing information are some activities that will establish a sustainable, functional and effective engagement on AEPRS.

A Phase 2 of the project, involving the same people with more private sector and academe representation, is proposed. Phase 2 will prepare Contingency Plans for high-profile diseases, Manuals and other EPRS toolkits needed in the implementation of the Technical Guidelines on EPRS prepared in Phase 1.

A Phase 3 of the project might be needed for the capacity building on preliminary guidelines implementation which will include simulation exercises of Contingency Plans and EPRS toolkits prepared in the proposed Phase 2. Workshops on database registry for diseases, experts, and laboratories; analysis of surveillance data; aquatic epidemiology; risk analysis; pathology and the like may also be included in Phase 3.

All these activities are relevant to the sustainability of the project result.

II. REQUIRED CONSIDERATION BY THE COUNCIL

- To take note of the ASEAN Regional Technical Guidelines on Early Warning System for Aquatic Animal Health Emergencies as endorsed at 41AMAF; and
- To comment on the proposed follow-up actions to ensure the sustainability of the project as well as to suggest activities on how to move forward.

Annex 15

**PROPOSED ASSESSMENT OF AQUACULTURE RESEARCH AND DEVELOPMENT
UPDATES IN SOUTHEAST ASIA**

Traditional aquaculture has been practiced by fish farmers of Southeast Asia for centuries. In the past years, however, the introduction and development of modern innovative aquaculture technologies have transformed this age-old occupation into a major industry that has increase the national fish production, produced much-needed export earning, and generated employment and business opportunities. Aquaculture slowly become a necessity in order to produce more fish in the face of decreasing supply from marine fisheries and increasing demand from the burgeoning population. The challenge now is how to make the best possible use of coastal and inland waters for aquaculture which are cost-efficient and causing no adverse environment and socioeconomic changes.

Since its establishment more than 46 years ago, the Aquaculture Department of the Southeast Asian Fisheries Development Center (SEAFDEC/AQD) has generated technologies that contributed significantly to the development of aquaculture in the region. Aquaculture technologies must keep abreast with the present and future needs and challenges of the industry. Thus, the Seminar-Workshop on Aquaculture Development in Southeast Asia (ADSEA) is being proposed.

ADSEA was first conducted in 1987 in Iloilo City, Philippines with the main goal of re-examining the existing aquaculture technologies in Southeast Asia and identifying future directions for aquaculture in the region. It was then conducted for every four years in 1991, 1994, and 1999. Through the revival of this Seminar-Workshop, AQD can collect valuable inputs from aquaculture officers from SEAFDEC Member Countries in terms of research areas and training opportunities where closer collaboration and partnership can be strengthened. Therefore, ADSEA wishes to review recent developments in aquaculture and provide a forum to discuss strategies to ensure further developments of responsible aquaculture in the region. Specifically, it aims to:

- a) assess the progress and developments of aquaculture technologies in the region;
- b) assess the progress of research and development within AQD in relation to the current status aquaculture research and technologies in the Region;
- c) review recent advances in sustainable and responsible aquaculture elsewhere in the world; and
- d) identify strategies for sustainable and responsible aquaculture in the region.

In order to achieve these objectives, the seminar-workshop proposed the following topics:

- a) *Country Reports*. Status reports of SEAFDEC Member Countries on sustainable aquaculture including recent developments, pressing issues, gaps, possible strategies, and recommendations;
- b) *Review of Research and Development Activities at AQD*. Status, updates, and future plans of the aquaculture technologies being developed by scientists and researchers in AQD;
- c) *Special Reports (research)*. Updates on the latest research aquaculture technologies by scientists and researchers from distinguished research institutions and universities.
- d) *Special Reports (industry)*. Updates on the latest aquaculture technologies developed and applied in the industry by individuals and companies.
- e) *Workshop Discussion*. Identification of research gaps and collaborative activities among Member Countries.

At the end of the workshop, the participants will be updated on the recent activities on sustainable and responsible aquaculture technologies including the gaps and possible research areas. It also aims to put forward recommendation to address the gaps and issues identified during the workshop.

REQUIRED CONSIDERATION BY THE COUNCIL

- To consider the proposed ADSEA Seminar-Workshop including objectives and suggested topics as part of AQD's activity from 2020 to 2021.

Annex 16

REGIONAL GUIDELINES ON COLD CHAIN MANAGEMENT OF FISH AND FISHERY PRODUCTS IN THE ASEAN REGION

The Regional Guidelines on Cold Chain Management of Fish and Fishery Products in the ASEAN Region is the main output of the MFRD project on Cold Chain Management of Seafood. The Guidelines have been developed following a series of participatory and consultative process and workshops involving fishery officials from the ASEAN-SEAFDEC Member Countries and cold chain trials that were implemented in each of the ASEAN-SEAFDEC Member Countries organised under the Marine Fisheries Research Department (MFRD) Programmes. The consultations were done with various experts on cold chain management of fish and seafood quality assurance from Curtin University (Australia) and Sydney Fish Market. The Guidelines will serve as a common platform and reference for Member Countries when implementing cold chain management for fish and fishery products. The Regional Guidelines were finalised by senior fishery officials from all Member Countries at the End-of-Project Meeting, held in Singapore in April 2018. Following the endorsement of the Regional Guidelines by the SEAFDEC Council at the 51st Meeting of the SEAFDEC Council in March 2019, the ASEAN officials endorsed the Guidelines at the ASWGF_i in June 2019, SSOM-AMAF in August 2019 and finally at the 41AMAF in October 2019. The Guidelines can be downloaded from <http://repository.seafdec.org/handle/20.500.12066/6211>.

In 2019, at the 42nd Meeting of the SEAFDEC Program Committee and the 22nd Meeting of the Fisheries Consultative Group (FCG) of the ASEAN-SEAFDEC Strategic Partnership (ASSP) organized in Chiang Mai, Thailand from 14 to 15 November 2019, both Meetings took note of the new project “ASEAN-JICA Food Value Chain Development Project”, which one of the activities will be implemented by MFRD. The new project is supported the sharing of information on the implementation of the Regional Guidelines.

REQUIRED CONSIDERATION BY THE COUNCIL

- To take note of the endorsed Regional Guidelines on Cold Chain Management for Fish and Fishery Products in the ASEAN Region at the 41AMAF in October 2019; and
- To take note of the new project “ASEAN-JICA Food Value Chain Project”, on information sharing on implementation of the Regional Guidelines on Cold Chain Management for Fish and Fishery Products in the ASEAN Region has been proposed to support the adoption of the guidelines in the region. This project will be undertaken by SEAFDEC MFRD programmes.

Annex 17

REGIONAL ACTION PLAN FOR MANAGEMENT OF TRANSBOUNDARY SPECIES: INDO-PACIFIC MACKEREL IN THE GULF OF THAILAND SUB-REGION

The Gulf of Thailand Sub-region (GOT) is one of the important ecosystems for Indo-Pacific mackerel or short mackerel (*Rastrelliger brachysoma*), which is the most migratory economically important small pelagic fishes in the Southeast Asian region. In most years, the short mackerel productions have been declined in the Gulf of Thailand (SEAFDEC, 2018). Such situation became a great concern by countries in the Southeast Asian region due to overfishing and unregulated fishing operations, while changes in environmental condition and water quality, and modification and loss of critical habitats also has been documented in several countries. The species also had changing population patterns, which could be due to the environmental impacts.

During the past few years, the efforts on sub-regional cooperation were made by SEAFDEC. the SEAFDEC-Sweden Project (2013-2019) facilitated the discussion among the GOT Sub-regional countries on the management of this Indo-Pacific mackerel through a series of consultations, data collection and DNA study (to understand stock structure in the Gulf of Thailand) were carried out, while the SEAFDEC/UNEP/GEF Project on “Establishment and Operation of a Regional System of Fisheries *Refugia* in the South China Sea and Gulf of Thailand”, gave the same attention by Thailand and Cambodia established the fisheries *refugia* sites in Trat, Thailand and Koh Kong, Cambodia. The analysis of DNA showed the mixed stock structure of short mackerel in the Gulf of Thailand countries, this species migrates throughout the areas in the GOT. In September 2019, the SEAFDEC-Sweden Project in collaboration with the SEAFDEC/UNEP/GEF/Fisheries *Refugia* Project jointly developed the “**Regional Action Plan (RAP) for Management of Transboundary Species: Indo-pacific Mackerel in the Gulf of Thailand Sub-region**”. The RAP would provide a direction within the GOT countries, as well as among countries of the Southeast Asian region to work together in developing appropriate management of Indo-Pacific mackerel based on scientific information.

At the 42nd Meeting of the SEAFDEC Program Committee in November 2019, the 42PCM was informed and requested to provide comments on the draft RAP (*Appendix I*) and agreed for further consideration by the SEAFDEC Council as well as the possibility of submitting the Regional Action Plan for endorsement by the ASEAN.

REQUIRED CONSIDERATION BY THE COUNCIL

- To endorse the Regional Action Plan (RAP) for Management of Transboundary Species: Indo-pacific Mackerel in the Gulf of Thailand Sub-region; and
- To endorse the submission of the RAP to ASEAN mechanism.



**REGIONAL ACTION PLAN
FOR
MANAGEMENT OF TRANSBOUNDARY SPECIES:
INDO-PACIFIC MACKEREL IN THE GULF OF THAILAND SUB-REGION¹**

SEAFDEC

I. INTRODUCTION

Mackerels (Family Scombridae) particularly the Indo-Pacific mackerel (*Rastrelliger brachysoma*), also known as short mackerel, are among the most economically important small pelagic fishes in the Southeast Asian region, contributing to approximately 38% of the region's total small pelagic fisheries production or 11% of total capture fisheries production in 2010. Comparing among several Mackerel species, in 2016 Indo-Pacific mackerel contributed to 78% of the total Mackerel production with the average price of 1,492 USD/MT, decreasing from the production reported in 2015. (SEAFDEC, 2018).

On the production of Indo-Pacific mackerel by countries, Indonesia was the major producer in the region, reporting the highest production at 283,106 MT in 2016, followed by Philippines at 38,339 MT (SEAFDEC, 2018). As for Thailand, the Mackerel production was not segregated by species, but the total production of all Mackerel species was reported to be 81,017 MT. Nevertheless, it could be observed that the country's total Mackerel production in 2016 had drastically reduced from those of 194,845 MT in 2012. Similar to Thailand, Philippines also reported the declining trends in its Mackerel production through the period (SEAFDEC, 2018).

The Gulf of Thailand Sub-region (GoT) is one of the important ecosystems for Indo-Pacific mackerel, where the peak of highest catch using purse seine and falling net was reported in 1996 at 328,955 MT; while low catch was reported during 3 periods, in 1999, 2005 and 2010 at 289,285 MT, 283,984 MT and 259,354.56 MT, respectively, and the catch has never reached 300,000 MT as recorded in 1996 again (SEAFDEC, 2018).

In general, the species was caught by various types of fishing gears in the GoT; and the three major types recorded in 2008 were purse seines (45%), driftnets (31%), trawls (18%). The landings show declining trends indicating that the mackerel stocks in the South China Sea and GoT were already overexploited. For instance, in 2016, Thailand reported the catch production of Indo-Pacific mackerel by 3 main fishing gears, purse seine at 3,008 MT, trap at 691.6 MT, and trawl at 630.3 MT (SEAFDEC, 2018).

II. STOCK STATUS OF *R. BRACHYSOMA*

Indo-Pacific mackerel is considerable inexpensive but contains high protein, making the species popular for consumption in the Southeast Asian countries such as Cambodia, Indonesia, Thailand, Malaysia, etc. However, with drastic increase in the production of canned mackerels to replace the decreasing sardines, the catch of Indo-Pacific mackerel has recently been declining as a result of overfishing and unregulated fishing operations in several countries. Such situation has become a great concern by countries in the Southeast Asian region.

¹ Developed during the Technical Consultative Meeting on Drafting of the Regional Action Plan for Management of Transboundary Species Indo-Pacific Mackerel in the Gulf of Thailand Sub-region, 12-13 September 2019, Thailand

A number of fish species including mackerels were reported to be in the overexploitation state in the Gulf of Thailand (Puthy, 2007). In his study using the Schaefer and Fox models, the result indicated that mackerel stocks are both biologically and economically overexploited, but there were still opportunities to increase the mackerel stocks by reducing fishing efforts which would allow the stocks to recover.

Thailand also reported that the species was under overexploitation state throughout the past years. The species also had changing population patterns, which could be due to the environmental impacts. Furthermore, distribution of fish larvae could also be influenced by changes in phytoplankton, water current, and temperature (SEAFDEC, 2017).

In Indonesian waters, over-exploitation of pelagic fishery resources, including Indo-Pacific mackerel has been highlighted in Java Sea and other Indonesian waters; however, the recent population dynamic study by Zamroni, A.& Ernawati, T. (2019) showed that Indo-Pacific mackerels in Northern Coast Java of Indonesia water was still under fully exploitation state, and the recruitment process has not been disturbed. Although the species has yet to reached the heavily exploitation state, suggestion was made that fishing efforts should be reduced; while fishing permits, such as number of units, size of fishing fleet, fishing gear dimensions, and fishing technology pressure, should also be controlled. Nevertheless, due to limited biological information of Indo-Pacific mackerel, genetic diversity study of the species including in Java Island was conducted (Indaryanto *et al.* 2015).

Meanwhile, the declining of Indo-Pacific mackerel due to changes in environmental condition and water quality, and modification and loss of critical habitats, has been documented in several countries and reported by the media.

III. ISSUES, KNOWLEDGE GAPS, AND CHALLENGES

Based on the reviews and inputs from six Southeast Asian countries, namely Cambodia, Indonesia, Malaysia, Philippines, Thailand, and Viet Nam, in response to SEAFDEC questionnaires in September 2019, the issues, knowledge gaps and challenges for sustainable utilization of Indo-Pacific mackerel could be summarized as follows:

3.1) Data and Information

- Insufficient information on the indo pasific mackerel fishery characteristics
- Insufficient series catch and effort data, series of size data, biological data collection for population and abundance study
- No current information of migratory route, spawning ground and season for a whole life cycle
- No regular monitor data collection on capture production

3.2) Understanding the Status of Fish Stock

- Lack of the knowledge on stock structure (need on DNA study)
- Insufficient stock status of *R. brachysoma* (distribution and abundance)
- Insufficient information on population dynamics (growth parameters, mortalities and relationship to other regional stock)
- No Actual effort to exploit the resources
- Trans-boundary distributions
- Lack of knowledge on how to assessment Multi-fishing gears to harvest

3.3) Management Responses

- No Fisheries Management Plan
- No information on existing and effectiveness of regulations
- No co-management schemes/arrangements
- No transboundary management mechanism/plan
- No information on Effects/Loss to IUU fishing
- No reliable database or software for Assessment
- No Traceability system using electronic logbook
- support the Sustainable management concept, Co-management, and EAFM

3.4) Awareness Building

- Educate people and student in fisheries communities
- Distribute brochures or any media to promote of fisheries management

- Raise awareness of both small-scale fishers and commercial fishers
- Sharing of the findings to both policy management level and fishermen
- Develop consultation among researchers, managers and stakeholders (EAFM)
- To support the Sustainable management concept, Co-management, and EAFM

3.5) Strengthen Regional Cooperation

- Standardization on data collection for regional stock assessment
- Data sharing
- Lack of management body
- Develop the transboundary management mechanism/plan (same as 3.3)

3.6) Study the Environment Impact

- Temporary disappear of short mackerel in the Gulf of Thailand
- Impact of climate change to fish migration route

3.7) Enhance Capacity Building

- strengthen knowledge on research works as follows:
 - Species identification of small size (juvenile) and larval fishes
 - otolith (to know age of fish)
 - Data collection at landing sites: catch and biological data
 - Data analysis
 - Stock Assessment and modeling for stock assessment
 - Harvest Strategy
- Fishing gear technology
- Fisheries manager
 - Translating scientific advice into management measures and actions
 - Understand various fisheries management tools and used them in the actual implementation

3.8) Inform the agreed management measures to related stakeholders (*i.e.* fishers/fishing industry, local community etc) and ensure its compliance.

REQUIRED REGIONAL COOPERATION FOR TRANSBOUNDARY SPECIES

Since 1953, Thailand undertook several management actions for Indo-Pacific mackerel stock. From 1953 to 2015, several studies were conducted, and 13 Notifications were released in relation to closure of fishing area in the Gulf of Thailand with the objective of conserving the spawning grounds and nursery stages of aquatic resources (Saikliang 2016). Thailand also undertook several studies to enhance knowledge on migration patterns of Indo-Pacific mackerel within the country's EEZ in the Gulf of Thailand. The country's efforts for effective fisheries management for Indo-Pacific mackerel were continued up to the present.

Although information on migration patterns of Indo-Pacific mackerel within the country's EEZ in Gulf of Thailand sub-region is already available for almost 30 years. However, the recent result from genetic analysis of Indo-Pacific mackerel using individual assignment and mixed-stock analysis shows the contradictory migratory behavior of the species between the stock in the inner Gulf of Thailand and the stock in the eastern part of the Gulf of Thailand (Kongseng, et al, 2020). Additionally, the population from Pattani Province may also migrates across eastern Gulf of Thailand through southern part of Viet Nam and Cambodia waters. Such results indicated that Indo-Pacific mackerel is transboundary species and joint management cooperation at the regional or sub-regional levels among countries that harvested Indo-Pacific mackerel is necessary for sustainable management of the species.

IV. PROVISIONS OF THE REGIONAL ACTION PLAN FOR MANAGEMENT OF TRANSBOUNDARY INDO-PACIFIC MACKEREL

There are a number of international instruments aiming at conservation and management of marine resources, *e.g.* the 1982 United Nations Convention on the Law of the Sea (UNCLOS), the United Nations Fish Stock Agreement (UNFSA), and the UN Sustainable Development Goal (SDG) 14. These instruments also support initiatives in combating of illegal fishing towards sustainable use of seas and marine resources, as well as to enhance the environmental, economic and social well-being of coastal fishers and communities. At the regional level, the ASEAN-SEAFDEC Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region adopted by the ASEAN-SEAFDEC Member Countries in 2001 and 2011 also specified the importance of establishing and implementing effective fisheries management

through ecosystems approach by integrating habitat and fisheries resources and increasing social and economic benefit to all stakeholders, and applying knowledge/science-based development and management of fisheries.

Recognizing the needs to strengthen cooperative efforts among countries toward sustainable utilization of the marine resources particularly the Indo-Pacific mackerel that is important transboundary resource in the Gulf of Thailand, SEAFDEC with the funding support from the Government of Sweden through the SEAFDEC-Sweden Project on “Fisheries and Habitat Management, Climate Change and Social Well-being in Southeast Asia” and the SEAFDEC/UNEP/GEF Project on “Establishment and Operation of a Regional System of Fisheries *Refugia* in the South China Sea and Gulf of Thailand (Fisheries *Refugia*)” therefore facilitated discussion among the Gulf of Thailand countries to develop the Regional Action Plan (RAP) for Management of Indo-Pacific mackerel. The RAP contains five Sections, namely:

Section 1: Introduction;

Section 2: Stock Status of Indo-Pacific mackerel;

Section 3: Issues, Knowledge Gaps and Challenges;

Section 4: Required Regional Cooperation for Management of Transboundary Species; and

Section 5: Provisions of the RAP including goal, outcomes, objectives and actions.

The Provisions of RAP were categorized into 5 dimensions, which are: 1) Governance; 2) Social; 3) Economic, 4) Ecosystem; and 5) Climate Change; and these were aligned with the concept of the Ecosystem Approach to Fisheries Management (EAFM).

This RAP for Management of Indo-Pacific mackerel is a non-legal binding document that is meant to serve as a foundation to identify practices and processes that support the implementation of the relevant ASEAN-SEAFDEC Resolution and Plan of Action. It marks an evolutionary step towards concerted regional approach to support countries’ efforts to manage this transboundary fish stock in the Gulf of Thailand.

4.1 The goal of regional action plan

This RAP is intended to serve as guide for concerned countries in implementing actions to achieve the goal of “*Sustainable Indo-Pacific mackerel fisheries in the Gulf of Thailand sub-region through science-based management for shared benefit to other ASEAN Member States by 2030.*”

4.2 Expected outcomes

- i. Healthy Indo-Pacific mackerel resources through the implementation of fishery management plan in the Gulf of Thailand
- ii. Accurate and comprehensive information on Indo-Pacific mackerel in the Gulf of Thailand
- iii. Model for development of management plan for Indo-Pacific mackerel that could be applicable to other sub-regions

4.3 Actions

A) GOVERNANCE DIMENSION
Overall Objective: Regional/sub regional fisheries management mechanism are in place building upon national regulations and management scheme
Specific Objectives
A1. Fisheries management mechanism developed and approved (including fisheries management plan and arrangement, the effective of regulation)
A2. Data management system are enhanced and considered regional/sub-regional standardization data management system in place
A3. Standard for assessing fishing effort large, medium and small-scale fishery agreed
A4. Understandings on national law and management schemes within the sub-regional are communicated and applied
A5. Impact of unregulated and unreported fishing assessed
A6. Catch documentation system applied as a tool to improve traceability of the short mackerel fishery

Knowledge Gaps/Issues	Actions	Ref.	Responsibility
Insufficient catch and landing data	Develop the SOP/technical guidance for data collection (including catch data, biological data)	A2	SEAFDEC University Government agency
	To further develop catch documentation	A2	Fishery research institute
	Harmonization/standardized on data collection and develop database system	A2	
Insufficient biological data collection	Conduct capacity building program for data collection to enumerator and scientist, researchers	A3	SEAFDEC University Government agency
	Conduct time series data collection with standardized method	A3	Fishery research institute
Insufficient Fishing effort (include commercial and small scale)	Link to the catch documentation include commercial and small-scale fishery (as available)	A4	Government and Private sector
	Regular monitor data collection on fishing effort capture production (include commercial and small scale)	A4	
Fisheries Management Mechanism (including fisheries management plan and arrangement, the effective of regulation)	- Develop fisheries management plan for short mackerel at national and sub-regional level Initiate the development of harvest strategy	A1	SEAFDEC University Government agency Fishery research institute All stakeholder (fishers, others)
	Establish regional cooperation on monitoring, control and surveillance	A1	Existing national MCS partners/network
	Raise awareness of both small-scale fishers and commercial-scale fishers - Policy and regulations - Management measures - Sustainable utilization - Involvement the participation, considering gender sensitivity	A1	SEAFDEC University Government agency Fishery research institute All stakeholder
	Promote stakeholder consultation among researchers, managers and stakeholders using EAFM	A1	SEAFDEC University Government agency Fishery research institute All stakeholder International organizations (FAO, NOAA, etc)
	- Conduct habitat conservation and rehabilitation - conduct stock enhancement programs	A1	SEAFDEC University Government agency Fishery research institute All stakeholder
Understanding national law and regulations	Comparative review of national law and regulations, (including local wisdom)	A5	Government and resource person
	Disseminate knowledge and information on the conservation and management of Indo-pacific mackerel to fisheries communities and students	A5	Government Other stakeholders
Flexibility of regulation to respond to science advise	Encourage periodic evaluation of policy and regulation	A1	Government
Management schemes/arrangements	Develop management schemes/arrangements at sub-regional area including transboundary aspects	A1	SEAFDEC University Government agency

including transboundary aspects.	Support establishment of regional cooperation/management mechanism (non-legal binding and scientific advisory committee)	A1	Fishery research institute All stakeholders
Illegal, Unregulated and Unreported Fishing	Assessing the impact of Illegal, Unregulated and Unreported Fishing	A6	Government and resource person
	Strengthen the Monitoring, Control and Surveillance network against the illegal fishing (none legal binding)	A6	Inter-agencies coordination
Traceability system for fish and fishery product (using electronic logbook, etc)	Develop the catch documentation that suitable for traceability system <i>e.g.</i> electronic logbook, etc	A6	Government and resource person

B) SOCIAL DIMENSION

Overall Objective: Social responsibility and involvement in fisheries management achieved

Specific Objectives

- B1. Understanding the social condition of people involving in fishery at local and national level.
- B2. Increase participation and involvement of stakeholder in various level.
- B3. Resolve conflict on land and resource use
- B4. Build awareness and capacity in all level

Knowledge Gaps/Issues	Actions	Ref.	Responsibility
Social and economic at local and national level	Conduct a baseline survey based on available information on social and economic at local and national level (S)	B1	Government University
Traditional fishing (indigenous knowledge and social responsibility)	Improve and disseminate the best practice to other (indigenous people)	B1	Government
People engagement in fishery activity (include small scale fishery and large scale/commercial fishery, processing)	Conduct stakeholder analysis for understanding the important and influence of stakeholder in various level	B2	Government University
People engagement in policy making (fisherfolk organization, academy, private sector,	Promote Public Private Partnership	B2	Government
	Promote multi stakeholder engagement in policy making	B2	Government and relevant stakeholder
Social structure (community small scale and large scale, gender, migrant labor, and fisher)	Encourage gender equality based on understanding of social structure in community	B2	Government and relevant stakeholder
Conflict on land and resource use	Promote stakeholder consultation	B3	Government and relevant stakeholder
	Promote marine spatial planning and coastal zone management	B3	Government Resource person Relevant stakeholder
Awareness Raising	Distribute brochures or any media (<i>e.g.</i> digital media) to promote fisheries management and regulations	B4	SEAFDEC Government Relevant stakeholder
	Capacity building and experts exchange		
	Fishing gear technology for eco-friendly (Reduce bycatch, cost and expenditures)		

C) ECONOMIC DIMENSION

Overall Objective: Equal distribution of economic benefit, economic return and employment opportunities

Specific Objectives: C1. Ensure the national government and private sector commitment for long-term funding and support. C2. Understanding the structure and ownership of asset within fishing industry (large, medium and small scale). C3. Maximized economic benefit return for management response and reduced unequal distribution.			
Knowledge Gaps/Issues	Actions	Ref.	Responsibility
Funding	To ensure the national government commitment for long-term funding and support	C1	Government Private sector Funding agency/donor
	Explore various potential donor	C1	
	Promote capital access through micro finance scheme	C1	
	Promote corporate social responsibility	C1	
Structure and ownership of asset within the fishing industry (large and small scale)	Review structure and ownership of asset within the fishing industry (large, medium and small scale) for management responses	C2	Government Resource person
Benefit and economic return and unequal distribution	Assess benefit and economic return throughout the value chain	C3	Government Resource person
Increase of cost (fuel and other inputs)	To ensure the fuel and other input exist for local fishermen	C3	Government
Fisheries employment revenue	To create the alternative work	C3	Government Private Sector Relevant stakeholder
	Require the contract among people engage in fishing	C3	
D) ECOSYSTEM DIMENSION			
Overall Objective: Maintain healthy ecosystem for the wellbeing of short mackerel resources Specific Objectives D1. Understand current status and improve the knowledge of short mackerel resources for scientific based management D2. Understand various habitats of short mackerel throughout its life cycle			
Knowledge Gaps/Issues	Actions	Ref.	Responsibility
Migratory route	Update, further define and confirm the migratory route at national, sub-regional or regional area	D2	Fisheries Agencies, National Research Institutions, Regional Institutions
	Conduct tagging program, e-DNA, DNA	D1	
Spawning and nursery grounds (including dispersion and distribution of fish larvae)	Conduct comprehensive larvae survey (e.g. ichthyoplankton)	D1	Fisheries Agencies, Research Institutions
	Study on critical habitats	D2	
Seasonal changes	Conduct comprehensive larvae survey (e.g. ichthyoplankton)	D1	Fisheries Agencies, Research Institutions, SEAFDEC
	Conduct reproductive biology study	D1	
Physical and chemical oceanographic conditions and ocean circulation	Conduct oceanography survey	D2	Fisheries Agencies, Research Institutions, SEAFDEC
	Develop oceanographic modelling	D2	
	Conduct satellite imagery (GIS, remote sensing) analysis	D2	

Stock structure	Conduct DNA study, otolith, tagging, etc.	D1	Fisheries Agencies, Research Institutions, SEAFDEC
Stock status at national and regional of <i>R. brachysoma</i> (distribution and abundance)	Conduct stock assessment at national, sub-regional or regional level	D1	Fisheries Agencies, Research Institutions, SEAFDEC
	Share data, information and findings from scientific research to relevant stakeholders	D1	Fisheries Agencies, Research Institutions, SEAFDEC
	Standardized data collection for regional stock assessment	D1	Fisheries Agencies, Research Institutions, SEAFDEC
	Develop modeling for stock assessment	D1	Fisheries Agencies, Research Institutions, SEAFDEC, FAO
Species Identification	Provide capacity building on species identification of small size (juvenile) and larval fishes	D1	Fisheries Agencies, Research Institutions, SEAFDEC
Status and Trends	Investigate the trend of short mackerel catch at national, sub-regional levels	D1	Fisheries Agencies, Research Institutions, SEAFDEC
Population dynamics (Growth parameters, mortalities etc.)	Conduct survey on fisheries biology	D1	Fisheries Agencies, Research Institutions
Impact of fishing effort on stock structure (Multi-fishing gears to harvest)	Conduct study on impact of fishing effort on stock structure (Multi-fishing gears to harvest) to improve the fishery management	D1	Fisheries Agencies, Research Institutions, SEAFDEC
	Enhance Fishing gear technology for eco-friendly (Reduce bycatch, cost and expenditures)	D2	Fisheries Agencies, Research Institutions, SEAFDEC
Stock assessment and distributions for transboundary species	Enhance the cooperation for information sharing among the bordering countries	D1	Fisheries Agencies, SEAFDEC
Capacity building and experts exchange	Training, workshop, conference and experts exchange	D1,2	Fisheries Agencies, Research Institutions, SEAFDEC, FAO, UNEP-GEF

E) CLIMATE CHANGE DIMENSION

Overall Objective: Adaptive management based on understanding the impact of climate change and disaster

Specific Objectives:

E1. adaptive management measures **in place** in response to the impact of climate change and disaster to short mackerel fisheries and habitats

E2. mitigation and precautionary measures **adopted** to compensate the effects of climate change

Knowledge Gaps/Issues	Actions	Ref.	Responsibility
Impact of climate change to fish migration route	Assess the impact of climate change/disaster/anthropogenic activities to fish migration route, habitat and behavior	E1	Fisheries and Environmental Agencies, Research Institutions, SEAFDEC, UNEP-GEF, UNDP, FAO
	Study effect of environmental changes on the migratory pattern and spawning patterns based on climate change	E1	Fisheries and Environmental Agencies, Research Institutions,

			SEAFDEC, UNEP-GEF, UNDP, FAO
	Share information from the findings of scientific research to both fisheries managers and fishers	E2	Fisheries and Environmental Agencies, Research Institutions, SEAFDEC, UNEP-GEF, UNDP, FAO
Sensitivity of species on critical habitats and environment impact to ecosystem (pollution, climate change, etc)	Conduct study on sensitivity of species on environment change (pollution, climate change, etc) to support the management response	E1	Fisheries and Environmental Agencies, Research Institutions, SEAFDEC, UNEP-GEF, UNDP, FAO
	Study on the critical habitats (spawning and grounds)	E1	Fisheries and Environmental Agencies, Research Institutions, SEAFDEC, UNEP-GEF, UNDP, FAO
	Study effect of environmental changes on the migratory pattern and spawning patterns	E1	Fisheries and Environmental Agencies, Research Institutions, SEAFDEC, UNEP-GEF, UNDP, FAO
	Data sharing (assign focal person to share information)	E1	Fisheries and Environmental Agencies, Research Institutions, SEAFDEC, UNEP-GEF, UNDP, FAO
Capacity building and experts exchange	Training, workshop, conference and experts exchange on CC impacts	E1 E2	Fisheries and Environmental Agencies, Research Institutions, SEAFDEC, UNEP-GEF, UNDP, FAO

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PROJECT CONCEPT NOTE: IMPROVING HEALTHY OCEAN ECOSYSTEMS THROUGH TRAWLING BEST PRACTICES AND FISHING TECHNOLOGY INNOVATIONS

I. EXECUTIVE SUMMARY

Fisheries in Southeast Asia contributes to high fisheries production making many countries in the region among the top ten highest producers of fish in the world. However, the perceived lack of selectivity of fishing net and the resultant capture of huge quantities and diversity of non-target species, including endangered species, coupled with its significant effect on the environment as overfishing threatens fish stocks globally, reduces biodiversity, alters the ecosystem functioning, and jeopardizes the food security and livelihoods of people. Considering the Environmental damage caused by fishing especially traditional trawlers that about 40,000 vessels are still active and directly impact the degradation of the bottom/seabed habitats, spread of marine plastic debris from lost or abandoned nets, and occurrence of microplastics, as well as increased emission of CO₂ into the air. These negative impacts will intensify through time if major measures were not taken to address those mentioned impacts.

To solve these problems, SEAFDEC with the support from the UN Environment Program (UNEP) has drafted the Concept Proposal through the reviewing of gap analysis and consultation with the six Fisheries *Refugia* implementing countries with aims to seek the international donors either Green Climate Funds (GCF) and/or Global Environment Facilities (GEF). The Objectives of the project concept note is the sustainability of ocean/ecosystem health through the best practices and fishing gear innovations in the Southeast Asia. The project design consists of four main actions that are urgently needed in the Southeast Asia as follows: 1) Development of effective fisheries management policies through enhancement of data management system, 2) Promotion of innovative technologies for sustainable fisheries and climate mitigation, 3) Enhancing Management of fishery resources through Intensified efforts in habitat conservation and rehabilitation, and 4) Strengthening national and regional cooperation and coordination. Given that, the enormous impacts of destructive fishing practices particularly bottom trawl fishing on the health of the oceans should be impeded, particularly the alterations caused on the seabed habitats and in marine biodiversity on the continental shelf of Southeast Asia. Such evidence is also necessary to effectively assess and manage the environmental impacts of fishing methods and to address tradeoffs given that the major fishing gears such as bottom trawl fishing makes a substantial contribution to human food supply in the world market.

The concept note was developed based on the reviews of more than 150 research papers published at national, regional and global issues. The first draft had been addressed at the 2nd Regional Scientific and Technical Committee Meeting, the 2nd Project Steering Committee Meeting and the 3rd Regional Scientific and Technical Committee Meeting of the SEAFDEC/UNEP/GEF Project on Fisheries *Refugia* in May, November 2019, and February 2020, respectively for consideration and comments. This is the final draft that has been amended based on the suggestions by the *Refugia* Project Committee from six countries. The key challenges of this project are to come up with effective fisheries management policies, best practices and innovative technologies, climate mitigation and adaptation, and rehabilitation of seabed habitats. It is expected that the concept Note will be addressed for consideration, comments and support from the SEAFDEC Council in April 2020 for further finalizing and submit to UNEP as a GEF and GCF 's agency for funding. The full-project document will be further developed in consultation with relevant countries in the Southeast Asia. The required fund is about 50 Million for 5 Years implementation. In case for GCF, the relevant countries to the project have to coordinate with National Designated Authority (NDA) and seek for "No Objection Letter" for the Project Preparation Facility (PPF). The similar requirements for GEF, the relevant countries to the project have to coordinate through the environment agency for endorsement.

II. REQUIRED CONSIDERATION BY THE COUNCIL:

- To take note of the proposed Concept Note drafted by SEAFDEC entitled "Improving Healthy Ocean Ecosystems through Best Practices and Fishing Technology Innovations" for funding from either Green Climate Funds (GCF) and/or Global Environment Facilities (GEF) through the support by UNEP;



- To consider and provide suggestion and support the concept note proposed by SEAFDEC for seeking funds from said donors to support the SEAFDEC Member Countries;

CONCEPT NOTE (FOR REVIEW)

Improving Healthy Ocean Ecosystems through Trawling Best Practices and Fishing Technology Innovations

I. INTRODUCTION

The South China Sea and Gulf of Thailand are geographically located on the important Sunda Shelf as a southeast extension of the continental shelf of Southeast Asia that includes the Malay Peninsula, Sumatra, Borneo, Java, Madura, Bali, and their surrounding smaller islands (Ben-Avraham 1973). It covers an area of approximately 1.85 million km² (Van Bemmelen 1949) and comprises large fishing areas suitable for bottom trawl fishing since the past.

Bottom trawl fishing in Southeast Asia has emerged since early 1970s, as a major industrialized fishing method, and became a dominant fishing method in offshore and coastal areas. Rapid expansion of trawl fishing effort, conversion of vessels, expansion of the geographical range of fishing, and retention of most animals caught have resulted in rapid depletion of stocks and changes to stock composition, destroying critical habitats, causing high impacts on benthic communities, catching of bycatch species, threatening and endangering major aquatic species, and even altering the associated ecological communities (Kongprom *et.al.* 2003; Nurhakim 2003; Campos 2003). This declining trend is compatible however with the fishing ‘down marine food web’, reported from well-studied parts of the South China Sea, notably the Gulf of Thailand (Christensen *et.al.* 2003). (to be added here, a short summary of the current situation of bottom trawl fisheries in Southeast Asian countries – based on RYBIC II project implemented during 2012 to 2019 and other relevant regional/national initiatives)

In terms of impacts on socio-economic and fishery resources, more valuable fish caught by bottom trawl fisheries has decreased sharply and that there has been proportionate increase in juvenile of commercial important species and low-value species. These results provide a clear picture of the extent of stock rehabilitation and management efforts that are required to restore the maximum economic value to the fisheries of the region (Silvestre *et.al.* 2003).

On carbon footprint in fisheries, global fisheries burned almost 200 billion liters of fuel in 2016 compared to 47 billion liters in 1950 (Greet *et.al.* 2019). The most fuel-intensive fishing practices not only contribute most to the damaged seabed habitats and reef formations but also worsen the impacts of climate change. Bottom trawling techniques are the most fuel intensive fishing techniques. Additionally, the intensity of fuel consumption by fisheries in the Southeast Asia is high about 500–2000 liters km⁻² (EC 2007). Reducing the carbon footprint of fisheries, particularly in bottom trawling with less fuel consumption and causing less impact from trawling is therefore needed.

Achieving effective fisheries management for bottom trawling is therefore increasingly important as it threatens fish stocks globally, reduces biodiversity, alters ecosystem functioning, and jeopardizes the food security and livelihoods of hundreds of millions of people worldwide (Golden *et al.* 2016; Jackson *et al.* 2001; Pauly et al 2005; Szuwalski *et al.* 2017; World Bank 2009). As such, the Project intends to come up with effective fisheries management policies, fishing technology innovations for best practices, climate mitigation and adaptation.

II. PROJECT DESCRIPTION

This project Concept Note entitled “**Improving Healthy Ocean Ecosystems through Trawling Best Practices and Fishing Technology Innovations in Southeast Asia**” is being developed to meet the need of the Resolution and Plan of Action on Sustainable Fisheries Development for Food Security for the ASEAN Region Towards 2030 and Implementing the Strategic Action Programme for the South China Sea (SAP-SCS). The Project would be executed regionally by the Southeast Asian Fisheries Development Center (SEAFDEC) in partnership with the government agencies responsible for fisheries in the Southeast Asia: focusing all ASEAN Member States. It is expected that full proposal will be further developed to meet the requirement of the DONORS such as Green Climate Funds (GCF), Global Environment Facilities (GEF). The required fund is about 50 Million for 5 Years implementation. In case for GCF, the relevant countries

to the project have to coordinate with National Designated Authority (NDA) and seek for “No Objection Letter” for the Project Preparation Facility (PPF).

The Concept Note integrates the fisheries and habitats management through the development of effective national/regional fishery policies on sustainable fisheries and innovative technology for bottom trawl gears and methods including reduction of green-house gas emission from fishing activities. Additionally, building partnerships between multiple public and private sectors, *e.g.* local government/communities, research institutions, net makers, fisheries associations, fish meal industry, fish processors, etc. would be among the approaches to improve and change this production practice into more environmentally positive. The project includes resources enhancement activities that aim to rebuild and rehabilitate the seabed habitats as well as shelters of both demersal and pelagic fish in either offshore or coastal areas to protect and enhance demersal fish stocks due to loss of seabed habitats affected by the bottom trawl net. Cooperation among country partners (regional) and concerned inter-agencies (national) are needed taking into account the demersal fish stocks on the continental shelves that have already depleted. The project also enhances public-private partnership on innovative and eco-friendly technologies through creation of business opportunities and economic considerations, as well as building capacity and knowledge specifically in the field by collaborating with stakeholders for exchanging of the best practices.

The project comprises the following 4 project components:

Component 1 will consider the results of the impact assessment and management of bottom trawl fisheries through enhanced social dimensions and developed supportive fisheries management policies appropriate for the country. The outcome of this component is improvement of management for trawl fisheries and enhancement of effective fisheries management policies through applicable management tools in the countries. Taking into account the social dimensions concerns, the economic value of fishes and economic efficiency in the industries as well as data collection and management are improved for long term achievements of the Project. Supporting activities are:

- 1.1 Closing the knowledge gap on the ecosystem/environmental impacts of bottom trawling via effective/applicable trawl management tools/policies;
- 1.2 Reduction of the pressures of bottom trawling on marine ecosystem and environment via effective fisheries management policies;
- 1.3 Catalyzing the public-private sectors on the actions to build resilient fishery resources and reduce the impacts of bottom trawling via enhanced stakeholder engagement taking into account gender mainstreaming in fisheries management;
- 1.4 Establishment of cross-sectorial agreement on national program for effective management of bottom trawl fishing;
- 1.5 Facilitating formulation/improvement of policy, legal, and planning frameworks, both at national and regional levels, for improving the ecosystem health through trawl best practices and fishing technology innovations;
- 1.6 Improvement of economic efficiency in the industry and the individual fishers via enhanced traceability system along the value chain of fish and fishery products from bottom trawling;
- 1.7 Increasing the economic value of fishes via promotion of marketing and branding as well as marine tourism at local communities;
- 1.8 Sharing of the knowledge and lessons learned to serve as useful platforms for data and information management for utilization by various stakeholders, the wider public and practitioners.

Component 2 focuses reduction of the impacts caused by the the bottom trawl fisheries to be more eco-friendly and fuel-efficient gears through the development of innovative technologies and best practices. The outcome of this component is reduced effects of bottom trawling on seafloor/benthic habitats and to improve the air quality through enhanced innovative technology and best practices in trawl fisheries. Supporting activities are:

- 2.1 Mitigation of the impacts of bottom trawling on marine ecosystem including the seabed habitats (also including feasibility study on application of other type of trawl net such as mid-water trawl), fish stocks, by-catch, ghost fishing, etc. via enhanced ecosystem-friendly fishing gears and methods, bottom trawling best practices, fishing technology innovations, and use of alternative fishing gears;

- 2.2 Enhancement of energy saving trawling including the low environmental impact and fuel-efficient fishing activities through innovative technology for increased fuel-efficient gear and reduced energy consumption or carbon footprint;
- 2.3 Reduction of post-harvest losses of the catches from bottom trawlers through improved preservation technology and increased quality of catches;
- 2.4 Mitigating abandoned, lost or otherwise discard fishing gear in the Region by applying integrated land-to- sea policy approaches, including promotion of FAO Voluntary Guidelines on the Marking of Fishing Gear.

Component 3 focuses on enhancing management of fishery resources through Intensified efforts in habitat conservation and rehabilitation. The outcome of this component is increased fisheries production through fisheries enhancement and rehabilitation of seabed habitats programs within the EEZ where no MPAs established and no fish shelters existed. Using the data management system especially spatial data on fishing effort, the project will monitor the pressures of bottom trawling on seabed and identify the seabed/grounds for installing the artificial fish habitats to increase fish production in the Southeast Asia. Supporting activities are:

- 3.1 Investigation of the suitable grounds for deployment of the artificial fish habitats through the assessment of critical seabed habitats using high-resolution spatial data on fishing effort;
- 3.2 Provision of platform for knowledge sharing and exchange of the best practices and innovations to enhance the management of fishery resources, habitat conservation and rehabilitation;
- 3.3 Increasing the artificial fish habitats or shelters of fishes in the areas where habitat loss through science-based management;
- 3.4 Catalyzing the inter-agencies cooperation for management of fishery resources, habitat conservation and rehabilitation of critical sea-bed habitats

Component 4 will foster national and regional cooperation and coordination in enhancing the healthy ecosystems through the development and/or strengthen Public-Private-Partnership and improvement and/or establishment of data management system, development of a regional/national communication strategy on the bottom trawl best practices and alternative fishing gears. At national level, the project will strengthen cross-sectoral coordination and will harness the national scientific and technical expertise and knowledge necessary to promote the policy, legal and institutional reforms for fisheries *refugia* management. Regionally, this component will foster regional cooperation on the integration of scientific knowledge and research outputs with effective fisheries management policies; and in enhancing the healthy ocean through the Best Practices in Trawl Fisheries. This component also includes project coordination and management activities aimed at: ensuring the timely and cost-effective implementation of the regional and national-level activities; and satisfying the reporting requirements of UNEP and the Donors. Supporting activities are:

- 4.1 Strengthening of the cross-sectoral coordination in improving the ecosystem health;
- 4.2 Harnessing of the national scientific and technical expertise and knowledge in promoting policy, legal and institutional reforms for enhancing the healthy oceans and implementing the best practices and fishing gear innovations;
- 4.3 Regional cooperation in the integration of scientific knowledge and research outputs with effective fisheries management policies;
- 4.4 Regional cooperation in enhancing the healthy ocean ecosystems;
- 4.5 Effective coordination of regional and national-level activities and satisfying the reporting requirements of UNEP and donors

The goals of this Project are to contribute to: improved seabed ecosystems particularly on the Southeast Asia continental shelf and other critical seabed habitats through mitigation of the impacts from bottom trawl fisheries; improved national fisheries policies of better management of the destructive fishing including bottom trawling that threatens the demersal and pelagic fish stocks and critical seabed habitats; and enhanced uptake of the best practices in fisheries management and biodiversity conservation in the design and implementation of regional and national fisheries management systems. objectives are to: build the resilience of Southeast Asian bottom trawl fisheries to the effects of fishing effort on seabed habitats; improve the understanding among stakeholders, including fisherfolk, scientists, policy-makers, and fisheries managers, of the seabed ecosystem and fishery linkages as basis for integrated fisheries and ecosystem/habitat management; and build the capacity of fisheries departments/ministries and all relevant



private partnerships to engage in meaningful activities regarding the improvement of fisheries and management of interactions between fisheries and critical seabed habitats. The related end-of-project targets are:

- Effective fisheries management policies through applicable/effective management tools/systems and national monitoring program on impact of bottom trawling developed, one or two countries in Southeast Asia applied/developed;
- Effects of bottom trawling on seafloor/benthic habitats reduced through national fisheries management policy on innovative technology and best practice, one or two countries in the Southeast Asia applied;
- Demersal catch production increased, and seafloor/benthic habitats improved; one/two countries, and the regional level;
- Cooperation and coordination platforms for reduction of effects from trawling and reduction of carbon footprint from trawling established at national and regional levels.

Annex 19

PROJECT CONCEPT NOTE: OCEAN RELIEF THROUGH SEAWEED AQUACULTURE

Funding:	GEF Trust Fund
GEF Agency:	WWF-US
Project Executing Entity (s) (to be confirmed):	PEMSEA, SEAFDEC, BFAR – Philippines, MARD – Viet Nam
Overall Objective of the Project:	to create new sustainable seaweed value chains that will deliver ecosystem services and provide socio-economic benefits
Recipient Countries:	Philippines (Bureau of Fisheries and Aquatic Resources) and Viet Nam (Ministry of Agriculture and Rural Development) (to be confirmed)
Governments and Partners:	US Department of Energy Advanced Research project Agency-Energy (ARPA-E), USAID, Development Partners [NORAD, International Finance Corporation (IFC)], Private Sectors [Seaweed Industry Association of the Philippines, Vietnam Seaculture Organization (VSO), etc.]
SEAFDEC Involvement in the Project:	(to be discussed with WWF-US)
Amount of Funding:	to be informed
Project Duration:	48 months
Timeframe for Proposal Submission:	(to be informed)

I. PROJECT DESCRIPTION

Seaweeds can be grown with no external inputs, removing eutrophying nutrients from the water and turning them into valuable protein, oils, green chemical feedstock and a range of industrial products. Producing large volumes of seaweeds for human food, animal feed and additives, pharma & medical, fertilizer and food additives could represent a transformational change in the global food security equation and in the way we view and use the oceans. The key to making the seaweed industry a driver of poverty alleviation and shared prosperity is to be able to add more value closer to the production areas, thus creating more and better jobs for low-income coastal communities. To this end, the project is intended to: 1) connect rapidly evolving, cutting edge science in the processing and use of seaweed to practical production technology; 2) create a forum for partnering technology to investors in developing countries; 3) establish norms of operation to ensure that production systems remain among the most environmentally positive economic activities.

Referring to the environmental problem and root causes, the literal erosion of the ocean's foundation is occurring - coral bleaching destroys reefs, mangrove loss reduces key habitat, calcium carbonate to buffer the water's pH is dissolving, nutrient pollution requires greater oxygen for decay of organic matter, suspended solids reduce photosynthesis, and rising temperature accelerates all of these processes. These impacts are most acutely observed in coastal and estuarine environments, and the stressors on these nearshore ecosystems are inhibiting ocean restoration interventions. The challenge is to find ways of capturing the carbon as CO₂ to reduce ocean acidity and allow for greater capacity of the ocean to slow the rate of climate change. Moreover, the extraction of nitrogen and phosphorus, which are the key nutrients that cause eutrophication in marine environments, is necessary to limit pollution and attempt to mitigate rising ocean temperatures. This is a global challenge and the solutions need to be tested and then scaled.

Barriers to scaling seaweed aquaculture to the point where climate change gains are significant and meaningful. Few existing markets and new "bridge" markets for seaweed to absorb the increased amounts of biomass. Without an increase in biomass demand provided by these bridge markets, private investment will be very difficult to obtain. The growth of seaweed farming is constrained primarily by lack of proper marine spatial plans. The current industry in the tropics is based on inshore and intertidal areas where multiple conflicting users vie for space. In addition, current seaweed farming is operating in small-scale systems. This does not allow for realizing the potential of seaweed farming for transformative global scale impacts on ecosystem health to larger-scale systems. Systems for large-scale seaweed production have not yet been deployed in tropical conditions, and this is required to move beyond small-scale intertidal seaweed

farming. Such a system, adaptable to a wide variety of conditions, both temperate and tropical, and species, both red and brown, has been developed by Seaweed Seed Supply A/S in Denmark. The main phases of production are: seaweed spawning sporophyte attachment and hatchery rearing grow-out on long lines and harvest.

One innovation of the project will be the creation of technologies that would allow for the expansion of seaweed cultivation into offshore areas. When appropriately sited, seaweed farms are a cleansing agent for coastal and offshore ecosystems. Siting farms further offshore will require significant engagement with the local municipalities and the national governments to identify feasible locations with upwellings, moderate currents and protection from heavy wind and storm surges as well as to address the issue of tenure and resource rights. The technology for farms and for siting has been advanced to a large degree by the US DOE ARPA-E program. It has modelled globally where seaweed farms would be most productive and protected. Another innovation of the project will be linking communities to a blue carbon market, whereby they can access credits for engaging in seaweed farming. The project will support a proof of concept for this innovative market tool.

The project will build on the existing capacity of relevant institutions in Vietnam and Philippines, including a strong baseline of existing government and partner programs and initiatives, and by the involvement of relevant stakeholders (including communities and private sector) in project development and implementation. By building on these capacities, the project will ensure long-term sustainability.

The project will be achieved through the following components and outcomes:

Component 1: Regional capacity building for seaweed aquaculture

Outcome 1: Strengthened capacity and uptake of best practices throughout seaweed value chains, and increased participation in global seaweed coalitions.

Component 2: Enabling Environment for Seaweed Aquaculture in Philippines and Vietnam

Outcome 2.1: Improved planning to facilitate seaweed aquaculture and capture of nutrients from the ocean.

Outcome 2.2: Strengthened governance, institutional and legal frameworks conducive for planning and accounting for seaweed aquaculture impacts – positive and negative

Component 3: Seaweed Value Chains (production + processing)

Outcome 3.1: Improved technologies and testing for seaweed aquaculture and ecosystem services

Outcome 3.2: Increased community benefits from seaweed aquaculture

Outcome 3.3: Expanded collaboration with the finance sector and private sector

Component 4: Knowledge Management, M&E, and IW Learn (regional)

Outcome 4.1: Full participation in IW:LEARN and knowledge management/communication

Outcome 4.2. Monitoring and evaluation system in place

II. REQUIRED CONSIDERATION BY THE COUNCIL

The Council is requested to take note of the concept notes on the development of project “Ocean Relief through Seaweed Aquaculture”, and provide directives on the involvement of SEAFDEC in this project.

Annex 20

PROJECT CONCEPT NOTE: REGIONAL COLLABORATIVE RESEARCH AND CAPACITY BUILDING FOR MONITORING AND REDUCING MARINE DEBRIS FROM FISHERIES IN SOUTHEAST ASIA

Project Title:	Regional Collaborative Research and Capacity Building for Monitoring and Reducing Marine Debris from Fisheries in Southeast Asia
Prospect Funding Agency:	Japan ASEAN Integration Fund (JAIF)
Lead Department:	SEAFDEC Secretariat in collaboration with the concerned Department (s)
Project Participating Countries:	All ASEAN Member States (AMSs)
Proposed Budget:	to be informed (approx. 700,000 USD)
Project Duration:	2021-2023 (3 years)

Current concerns on marine debris from the viewpoint of fisheries in Southeast Asia are urgent common concerns at international, regional, and national levels, such as: abandoned, lost, discarded fishing gear (ALDFG); micro or nano-plastics assessment (both nearshore and offshore using research facilities such as research vessels); and scientific information sharing platform/system.

Objective of the Project:

The project objective is to enhance regional collaborative research and capacity building in fisheries sector including application of scientific knowledge to regional policies for monitoring and reducing marine debris in Southeast Asia, based on as the “ASEAN Framework of Action on Marine Debris”.

Project Components and Activities:

Component 1: Policy Support and Planning

Activity 1-1: Information gathering on ALDFG Situations to support policy planning and development
Activity 1-2: Strengthening fishery policy/management on combating marine debris

Component 2: Research, Innovation and Capacity Building

Activity 2-1: Environment research survey to evaluate microplastics and marine environment situations related to fisheries resources at sea
Activity 2-2: Research and evaluation on amount of marine debris collected by fishing activities
Activity 2.3: Research study on the impact from contaminant of microplastics in freshwater fish and marine fish
Activity 2-4: Training on the liable research methods to collect and analyze the marine debris and microplastics

Component 3: Public Awareness, Education and Outreach

Activity 3-1: “International Symposium on Marine debris and Microplastics in Fisheries in Southeast Asia”
Activity 3-2: Information management and communication

Component 4: Private Sector Engagement

Activity 4-1: Development of methods on marking of fishing gears and promotion on making of fishing gears

Expected Outputs/Outcomes

The recent 34th ASEAN Summit, held in Thailand in June 2019, issued two important documents related to protection of the marine environment; “The Bangkok Declaration on Combating Marine Debris in the ASEAN Region” and “the ASEAN Framework of Action on Marine Debris” are two cornerstone documents in combating marine debris in Southeast Asia. This project will contribute to the Declaration and the ASEAN Framework of Action for the region to combating marine pollution.

Way Forward

SEAFDEC will submit the project proposal to the ASEAN Secretariat for consideration by 2020.

REQUIRED CONSIDERATION BY THE COUNCIL

The Council is requested to take note of the concept notes on the development of project “Regional Collaborative Research and Capacity Building for Monitoring and Reducing Marine Debris from Fisheries in Southeast Asia.”

Annex 21

**PROJECT CONCEPT NOTE: SEAFDEC CAPACITY DEVELOPMENT THROUGH USAID
SUSTAINABLE FISH ASIA ACTIVITY**

Project Title:	USAID Sustainable Fish Asia (USAID SuFIA) Support Program
Prospect Funding Agency:	USAID
Lead Department:	SEAFDEC Secretariat in cooperation with concerned SEAFDEC Departments
Project Participating Countries:	All ASEAN Member States (AMSs)
Proposed Budget:	approx. \$2.0 million USD (through Local Solutions and U.S. Department of Interior mechanisms)
Project Duration:	2 years (September 2020 - September 2022)

I. BACKGROUND/INTRODUCTION

The Asia-Pacific region has the highest marine biodiversity on the planet.^{1,2} The region is home to 17 of the 36 global biodiversity hotspots.³ The region contains more than a third of all coral reefs on Earth, extending more than 100,000 square kilometers and containing more than 75% of all hermatypic coral species.⁴ Mangroves forests in the region comprise 73% of all mangrove taxa and nearly half of all seagrass species.⁵ The fisheries supported by these rich ecosystems are the most productive globally, both in terms of biomass and diversity of catch.⁶ More than 22 million people in the region rely on fisheries for livelihoods, while many more rely on them for food security and ecosystem services from their natural environment.⁷ But the threats to Asia's biodiversity could very well undermine its sustainability, integrity, and productivity.

The USAID Sustainable Fish Asia Project's (USAID SuFIA) identified four broad threats to marine biodiversity in the region: climate change; marine and land pollution (*i.e.* nutrients, plastics, noise); destructive development (*e.g.* ports, aquaculture, unsustainable tourism); and fishing-related threats, including unsustainable fishing (Very High Risk) and illegal (High Risk), unregulated (Very High Risk), and unreported (Very High Risk) fishing. The SuFIA Project will address threats to biodiversity from fishing-related activities, namely, unsustainable fishing and illegal, unreported and unregulated fishing (IUUF).

The Southeast Asian Fisheries Development Center (SEAFDEC), established as an intergovernmental organization in 1967 to promote fisheries development in Southeast Asia, is the leading regional organization in the fisheries sector. USAID envisages that supporting SEAFDEC's institutional development, through the existing Memorandum of Understanding (MOU) signed between SEAFDEC and USAID/RDMA on 16 June 2014, will enhance SEAFDEC's specific regional mandates and roles on sustainable fisheries management and marine biodiversity conservation in Southeast Asia region.

II. OVERALL OBJECTIVE OF THE PROJECT:

To provide SEAFDEC with organizational development, institutional capacity building, and further strengthening of the organization's role as regional fisheries platform to carry on international fisheries development projects, policies, and activities.

¹ Chan CY, Tran N, Dao CD, Sulser TB, Phillips MJ, Batka M, Wiebe K and Preston N. 2017. *Fish to 2050* in the ASEAN region. Penang, Malaysia: WorldFish and Washington DC, USA: International Food Policy Research Institute (IFPRI). Working Paper: 2017-01.

² World Bank. 2013. *FISH TO 2030 Prospects for Fisheries and Aquaculture*. World Bank Report Number 83177-GLB.

³ Myers, N., Mittermeier, RA, Mittermeier, CG, Da Fonseca, G.A., and Kent, J., 2000. Biodiversity hotspots for conservation priorities. *Nature*, 403(6772), p.853.

⁴ McManus, J.W., 1997. Tropical marine fisheries and the future of coral reefs: a brief review with emphasis on Southeast Asia. *Coral Reefs*, 16(1), pp. S121-S127.

⁵ McManus 1997

⁶ Bavinck, M., and Kooiman, J., 2013. Applying the governability concept in fisheries—explorations from South Asia. In *Governability of Fisheries and Aquaculture* (pp. 131-153). Springer, Dordrecht.

⁷ Stobutzki, I.C., Silvestre, G.T. and Garces, L.R., 2006. Key issues in coastal fisheries in South and Southeast Asia, outcomes of a regional initiative. *Fisheries Research*, 78(2-3), pp.109-118.

III. PROJECT DESCRIPTION:

The project would include the following activities during its implementation period:

Activity 1: In partnership with SEAFDEC and other stakeholders, conduct an initial organizational capacity assessment of SEAFDEC to understand their institutional capacity development needs based on various Organizational Capacity Assessment (OCA) tools available, as well as any other areas of strengths and weaknesses identified by SEAFDEC

Activity 2: The development of SEAFDEC's Capacity Development Action Plan (CDAP)

Activity 3: The evaluation of SEAFDEC's capacity to fully develop activities with milestones. The identification of support needed and gaps identified in the Capacity Development Action Plan (CDAP), with notes on improvements and continued gaps.

Activity 4: Re-assessment of support, and the final report of SEAFDEC's Organizational Capacity Development Plan

IV. EXPECTED OUTPUTS/OUTCOMES

The expected outcomes are:

- 1) To strengthen the SEAFDEC Secretariat's ability to promote regional sustainable fishery management by putting in place regional policies, standards, and regulatory frameworks.
- 2) To increase the capacities of all regional multi-stakeholders, in this case, SEAFDEC Member Countries to improve fisheries management, compliance and enforcement both at the national and regional levels.
- 3) To support the development and implementation of any future activities that fall under the existing MOU between SEAFDEC and USAID by deploying technical expert(s) into the region as identified/prioritized by both sides. The expert(s) will be embedded within SEAFDEC Secretariat to provide necessary support for the implementation of the USAID Sustainable Fish Asia Project. Funded by USAID, the technical support will come from the U.S. Department of Interior (USDOI).

V. PROGRESS AND STATUS

The Project obtained official approval from USAID, and is able to start as early as September 2020, for the period of 2 years; following required approvals from SEAFDEC side.

VI. REQUIRED CONSIDERATION BY THE COUNCIL

The Council is requested to take note of the concept note on the development of project "USAID Sustainable Fish Asia Support Program."

STATEMENT

*By Food and Agriculture Organization of the United Nations/
Regional Office for Asia and the Pacific (FAO/RAP)*

Distinguished Members of the SEAFDEC Council, ladies and gentlemen,

FAO would like to express its appreciation to the SEAFDEC Council for the opportunity to deliver a statement on areas of mutual interest.

We are living in very challenging times. Like the rest of the world, we in the Asian region are still battling the COVID-19 pandemic and are challenged to adapt to new ways of working and organizing meetings and events, such as this virtual meeting that we are having now.

The COVID-19 pandemic has severely affected the food security and livelihoods of millions of men and women in the fisheries and aquaculture supply chain in Asia. As part of national measures to manage the pandemic, many countries have instituted a wide range of measures such as lockdowns, physical distancing, stay-at-home orders, ban on international and domestic air and land travel, closure of borders to imports or exports of food products, and ban on gatherings, festivities, and meetings. A knock-on effect of these has been the operation of fresh markets and impact on domestic and international supply and demand of fish and fishery products. Added to these is the reduced purchasing power of consumers arising from sudden loss of employment and closure of businesses.

As a leading regional organization, SEAFDEC is in a good position to promote and advocate among its Member Countries for the fisheries and aquaculture sector not to be left behind in relief and social protection measures and other schemes and packages to assist those dependent on the sector to recover. While the immediate focus is on the revival of livelihoods and businesses, it would be necessary to stress the fundamental importance of sustainable fisheries management practices during and after the pandemic.

Distinguished Members of the SEAFDEC Council, ladies and gentlemen,

Let me move on to two specific areas of cooperation between FAO and SEAFDEC. The first one is on the execution of projects funded by the Global Environment Facility. Two projects need to be mentioned here. First is the Phase II of the Sustainable management of the Bay of Bengal Large Marine Ecosystem (BOBLME II). FAO is very pleased to have SEAFDEC as one of the executing partners for BOBLME II, which will focus on the implementation of the Strategic Action Programme (SAP). The second is a new project in concept note stage called, “Promoting the blue economy and strengthening fisheries governance of the Gulf of Thailand through the Ecosystem Approach to Fisheries (GoTFish Project).” SEAFDEC is also an executing partner for this project.

Both projects build on the achievements of other SEAFDEC projects, such as the SEAFDEC-Sweden project, and ongoing activities such as the initiatives to combat illegal, unreported and unregulated (IUU) fishing in the region. The projects will also work in synergy with existing projects currently being executed by SEAFDEC, such as the *Refugia* project and the implementation of the South China Sea Strategic Action Programme.

The second area of cooperation is the implementation in the region of the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines). In 2019, the Fifty-First Meeting of the SEAFDEC Council approved the ‘SEAFDEC Gender Strategy – Mainstreaming gender in SEAFDEC and its programs’. Following this approval, the “Practical Guide for Gender Analysis in Small-scale Fisheries and Aquaculture” was developed to provide guidance to SEAFDEC Departments and ASEAN Member States in the implementation of the gender strategy as well as a human rights-based and gender-equitable small-scale fisheries and aquaculture development in the region. The Practical Guide will be tested in the field with funding from FAO under a Letter of Agreement and we are looking forward to the results.

Distinguished Members of the SEAFDEC Council, ladies and gentlemen,

As always, SEAFDEC has also been a strong partner with the Asia-Pacific Fishery Commission and we look forward to further cooperation in both APFIC and FAO workshops and meetings in the coming years.

We sincerely hope that much of this will be face-to-face, but also recognize that the changing world of virtual meetings and workshops also requires us to look to new approaches. Some of these carry substantial opportunities for increasing the number of people able to take part in online training and workshop activities, as well as the flexibility to fit around other busy working schedules. The cost reduction implications for our organizations are also significant.

FAO wishes SEAFDEC well in these endeavors and affirms its commitment as a longstanding partner in supporting our Member Countries in the region.

STATEMENT

By the Mekong River Commission Secretariat

The Mekong River Commission (MRC) is an inter-governmental organization established in 1995 by the 1995 Mekong Agreement, and works directly with the governments of Cambodia, Lao PDR, Thailand, and Viet Nam. The Agreement has provided legal mandate for the MRC and states its Basin Vision as “economically prosperous, socially just and environmentally sound Mekong River Basin”. The MRC serves its Member Countries with technical knowledge and basin-wide perspectives, and strengthens the joint management of shared water resources and sustainable development of the Mekong River Basin with the aim of ensuring that the Mekong River Basin is developed in the most efficient manner mutually benefiting all Member Countries, while minimizing harmful effects on the people and the environment.

MRC and SEAFDEC agreed on the Memorandum of Understanding (MOU) on “The Promotion of Sustainable Development of Fisheries and Aquaculture in the Lower Mekong Basin and Southeast Asia” to formalize relevant collaborative efforts in fostering research and development (R&D) on inland fisheries in the countries of the Mekong River Basin that comprise the MRC-SEAFDEC partnership. To strengthen this regional cooperation, the MRC-SEAFDEC MOU was signed in August 2017.

Under the signed MOU, MRC-SEAFDEC had co-organized a regional consultation workshop to strengthen the institutional platform of the Sub-Expert Group on Fisheries and participated in a regional consultation on development of a Project-Based Action Plan (PBAP) for implementing the Basin-wide Fisheries Management and Development Strategy (BFMS) in December 2017. The MRC had addressed the constructive and inclusive recommendations and comments which were the results of the consultation to develop a series of the drafts of PBAP and finalized the PBAP with close coordination with four key National Mekong Committees of MRC Member Countries and key relevant implementing/ line agencies, at the final meeting of the MRC Regional Expert Group on Environmental Management / Sub-Group on Fisheries in Bangkok, Thailand in October 2019.

The final PBAP has composed of seven project proposals and budget estimations. These project proposals are (1) Improvement of fisheries monitoring for supporting water development and management; (2) Transboundary fisheries and key habitat management in the Lower Mekong Basin; (3) Development and support responsible aquaculture on regional and transboundary levels in the Lower Mekong Basin; (4) Development of standard methodology and technical guidance to manage interaction and interdependency of water development and fisheries; (5) Support and promote fish friendly irrigation and agriculture development; (6) Strengthening capacity in fisheries and aquaculture for sustainability to be resilient to climate change in the Lower Mekong Basin; and (7) Promotion and improvement of gender equality and equity in inland fisheries of the Lower Mekong Basin. The MRC Joint Committee will consider and endorse the PBAP in 2020 which will be used to raise funds from interested development partners for the full implementation of the BFMS, in addition to MRC Basket Funds, in the next MRC Strategic Planning (2021-2025). Furthermore, the MRC has also started to develop two technical guidance that they are for transboundary fisheries management and for restoring and enhancing fish stocks in key important habitats to secure ecological health system along transboundary areas in the Mekong River Basin from January 2020. Also, MRC is updating its two 20-year old fisheries monitoring programmes (1) fish abundance and diversity monitoring; and (2) fish larval draft monitoring for both basin-wide and individual project impact assessment of particularly the Mekong mainstream hydropower projects. In addition, MRC has been working with UN-FAO to prepare two fisheries project proposals (1) Promoting sustainable use of the fishery resources of the Gulf of Thailand and Lower Mekong Basin through the ecosystem approach to fisheries; and (2) Promoting improved fisheries sustainability in Amazon, Mekong and Lake Victoria for seeking funds from GEF.

The BFMS and its PBAP are the regional cooperation frameworks to facilitate, support, and strengthen coordination and collaboration among the MRC, SEAFDEC and other relevant regional and international



organizations for sustainable inland fisheries and aquatic resources development and management in the Mekong basin.

Thank you for your kind attention!

RESOLUTION AND PLAN OF ACTION ON SUSTAINABLE FISHERIES FOR FOOD SECURITY FOR THE ASEAN REGION TOWARDS 2030

The Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 (RES&POA-2020) were prepared by the ASEAN-SEAFDEC Member Countries in collaboration with ASEAN and SEAFDEC, and were adopted by the Countries during the Ministerial and Senior Officials Meeting of the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020 “Fish for the People 2020: Adaptation to a Changing Environment” held during 13-17 June 2011 in Bangkok, Thailand. The RES&POA-2020 are envisaged to serve as policy framework and priority actions to support sustainable development of fisheries and enhancing the contributions from fisheries to food security and better livelihood of people in the region towards the coming decade.

On the occasion of the 5-year implementation of RES&POA-2020 in 2015, SEAFDEC Secretariat proposed to review the progress and results of the programs implementation based on the RES&POA-2020, and the priority issues to be addressed in ensuring sustainable fisheries development and enhancing the contribution of fisheries to food security in the Southeast Asian region. That was also to ensure that the implementation programs/activities are in line with the RES&POA-2020. To monitor the progress of the programs/activities implementation, the SEAFDEC Secretariat had prepared a survey questionnaire with the template for report on the implementation of the RES&POA-2020 which was sent to the AMSs for their cooperation and contributions to the said purposes. The feedback from the SEAFDEC Member Countries to the questionnaire for mid-term implementation of the RES&POA-2020 was reviewed and presented at the Thirty-Eight Meeting of the Program Committee of the SEAFDEC in November 2015.

Considering that the RES&POA-2020 have a specific timeframe towards 2020, the SEAFDEC Council at its 50th Meeting in 2018 suggested that this document should be reviewed in order to ensure that it is still up to date. Moreover, as the RES&POA-2020 were endorsed under the ASEAN mechanism, the Council stated the need to review this document should be raised at the forthcoming meetings of the FCG/ASSP and ASWGF in 2018. Upon consideration by these two meetings, the ASEAN-SEAFDEC Member Countries agreed to designate their respective focal points to review the Resolution and Plan of Action. According to the feedback of the questionnaire results extracted for mid-term (2015) and final (2018), it was clarified that the activities implemented by the AMS are relevant with the RES&POA-2020, *i.e.* under the thematic areas consisting of planning and information, fisheries management, marine fisheries, inland fisheries, aquaculture, optimal utilization of fish and fishery products, fish trade, and regional and international policy formulation. Although the results of the questionnaire survey have the potential for application in sustainable fisheries development in the region, such feedback (2018) had been derived from three AMS only. It was suggested that evaluation of the implementation of the RES&POA should be discussed in the future as part of the monitoring and evaluation of its implementation.

Subsequently, during the 51st Meeting of the SEAFDEC Council in March 2019, the Council noted the progress of the evaluation and revision of the RES&POA-2020 including the identification of priorities and issues necessary for revising the RES&POA. Then, the Council agreed on the timelines for designation of national focal points and the revision of the RES&POA-2020.

SEAFDEC organized the first regional meeting on “Way forward of the Resolution and Plan of Action for the ASEAN Region Toward 2020” in May 2019, to review the progress made by ASEAN Member States focusing on the outputs/outcomes obtained at national level, and those of SEAFDEC and other regional and sub-regional partners in the implementation of the RES&POA-2020. The Meeting also discussed and identified other fisheries-related priority/emerging issues which should be considered in reviewing the RES&POA, and would attempt to establish the possible links between RES&POA-2020 with other fisheries policy development process in the ASEAN. Additionally, at the first meeting, SEAFDEC facilitated the preparation of draft RES&POA beyond 2020 with the inputs, supports and cooperation of AMS. As a result, the draft RES&POA Towards 2030 (RES&POA-2030) was developed at the first regional meeting.

After the first regional meeting, the document was accommodated the comments from SEAFDEC Secretariat and the Departments, SEAFDEC Member Countries, as well as resource persons. In September

2019, SEAFDEC organized the second regional meeting to revise the draft of the RES&POA-2030. In November 2019, the 4th draft RES&POA-2030 was presented during the 42nd Meeting of SEAFDEC Program Committee and the 22nd Meeting of Fisheries Consultation Group of the ASEAN-SEAFDEC Strategic Partnership (FCG/ASSP) for seeking views from SEAFDEC Member Countries. In February 2020, the 5th draft RES&POA-2030 (*Appendix 1*) was obtained the views from the 42PCM and 22FCG and subsequently was sent to National Focal Points through email communication.

The following table shows issues and outputs from the series of events for reviewing the RES&POA-2020, developing the draft RES&POA-2030, and the plan for submitting through ASEAN and SEAFDEC mechanisms for the endorsement and adoption.

Date and Events/Activities	Issues/Outputs
Early 2019	Establishment of the National Focal Point (NFP) for reviewing the RES&POA-2020 and drafting RES&POA-2030
May 2019 – the 1 st Regional Meeting	Key issues, challenges and concerns for revision of the RES and POA-2020
May to August 2019	Revising the draft RES-POA-2030 <i>ad referendum</i> (SEAFDEC Departments and AMSs)
September 2019 – the 2 nd Regional Meeting	Review the 3 rd draft RES&POA-2030 to come up with the 4 th draft RES&POA-2030
Before the end of September 2019	Obtain comments from the NFP
November 2019: 42PCM and 22FCG Meetings	Collect views from PCM and FCG, come up with the 5 th draft RES&POA-2030
End of November 2019	Submission of the 5 th draft to the NFP
April 2020: 52CM	Endorsement of the 5 th draft RES&POA-2030
End of April 2020	Circulation to FCG/ASSP Focal Point <i>ad referendum</i>
28 th ASWGFi Meeting (June 2020)	Endorsement of the final draft RES&POA-2030
After 28 th ASWGFi Meeting	Circulation of the final draft RES&POA-2030 to Council for Japan for adoption of the POA-2030 by SOM
41 st SSOM (August 2020)	Adoption of the POA-2030, endorsement of RES-2030 for submission to 42 nd AMAF
42 nd AMAF (August 2020) and Minister of Japan	Adoption of the RES-2030

REQUIRED CONSIDERATION BY THE COUNCIL

- To endorse the 5th draft RES&POA-2030 for further submission to ASEAN mechanism.

5th Draft of Resolution and Plan of Action for ASEAN Region Towards 2030



Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030

We, the Ministers of the ASEAN-SEAFDEC Member Countries on the occasion of the Forty-second Meeting of the ASEAN Ministers on Agriculture and Forestry (42nd AMAF) on xx August 2020 in Cambodia, with the Minister of Japan responsible for fisheries through *ad referendum*, taking into consideration the “Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020” adopted by the Ministers responsible for fisheries of the ASEAN-SEAFDEC Member Countries during the *ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020 “Fish for the People 2020: Adaptation to a Changing Environment* in 2011, and accommodating the emerging issues that could occur in the near future;

Reaffirming our commitment to the United Nations 2030 Agenda for Sustainable Development adopted in 2015, particularly those that contribute to achieving sustainable development and management of fisheries;

Bearing in mind the possible impacts climate change has on fishery resources, and noting ongoing efforts to address and better understand climate change under the United Nations Framework Convention on Climate Change (UNFCCC) adopted in 1994, the Paris Agreement, and the Intergovernmental Panel on Climate Change (IPCC);

Being guided by the 2007 ASEAN Charter, which aims to ensure sustainable development for the benefit of present and future generations and to place the well-being, livelihood, and welfare of the peoples at the center of ASEAN community building process;

Recognizing the ASEAN Community Vision 2025, and the Vision and Strategic Plan for ASEAN Cooperation in Food, Agriculture and Forestry (2016-2025) which are meant to achieve “A competitive, inclusive, resilient and sustainable Food, Agriculture, and Forestry (FAF) sector integrated with the global economy, based on a single market and production base contributing to food and nutrition security and prosperity in the ASEAN Community”;

Being aware of the ASEAN-Japan Cooperation through the ASEAN Plus Three Mechanism that aims to support the realisation of ASEAN Community Vision 2025;

Also **bearing in mind** the continuous efforts of the ASEAN Member States (AMSs) in ensuring the sustainable development of fisheries and aquaculture is in line with relevant international guidelines and agreements, *e.g.* the FAO Code of Conduct for Responsible Fisheries; and the Regional Guidelines on Responsible Fisheries in Southeast Asia, the Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region (RPOA-IUU) framework, and the ASEAN RPOA for the Management of Fishing Capacity;

Acknowledging the efforts of the AMSs in implementing the Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 adopted on 17 June 2011; and the Joint ASEAN-SEAFDEC Declaration on Regional Cooperation for Combating Illegal, Unreported and Unregulated Fishing and Enhancing the Competitiveness of ASEAN Fish and Fishery Products, adopted on 3 August 2016;

Recognizing the ASEAN-SEAFDEC Strategic Partnership that provides the cooperative platform between ASEAN and SEAFDEC in achieving the long-term common goals towards the development and management of sustainable fisheries through various regional initiatives;

DO HEREBY RESOLVE, without prejudice to the sovereign rights, obligations, and responsibilities of our countries under relevant international laws and arrangements, to:

1. Endeavour to sustain the supply of fish and fishery products from the ASEAN region to improve food security, facilitate poverty alleviation, and improve the livelihoods of ASEAN people dependent on the harvesting, farming and marketing of fish and fishery products, by enhancing the necessary national fisheries policies, legal and institutional frameworks that encourage and support responsible fisheries and aquaculture operations, including small-scale operations as well as providing supplementary livelihood options;

2. Further develop strategic partnerships and cooperation to maximize the synergies and complementarities among the various stakeholders, <i>e.g.</i> government, private sector, civil society, and relevant development partners and donor agencies, in addressing regional and global challenges that may impact sustainable development of fisheries and aquaculture throughout the supply chain;
3. Promote capacity building of relevant organizations and stakeholders through mobilization of resources and harmonization of initiatives that support fisheries communities and governments, with due consideration given to gender equality;
4. Strengthen fisheries governance, in line with international practices, by evaluating current constraints to ensure comparability and compatibility of the required practices and the operations of fisheries in the AMSs;
5. Further develop regional initiatives to promote a responsible fisheries management mechanism, taking into account the specific social, economic, cultural, ecological, and institutional contexts and diversity of the ASEAN and ASEAN fisheries in the spirit of the realization of the ASEAN Economic Community and the ASEAN Socio-Cultural Community;
6. Implement effective management of fisheries that integrates habitat with fishery resources management, and aims to improve the social and economic benefits of all stakeholders, especially by delegating selected management functions to the local level and promoting co-management as a partnership between government and relevant stakeholders;
7. Promote sound management of fishing capacity and use of responsible fishing technologies and practices, recognizing increasing emphasis on rights-based fisheries; and at the same time, secure the rights and well-being of inland and coastal fisheries communities as well as the ecological well-being;
8. Strengthen cooperation among AMSs and with international and regional organizations in combating IUU fishing and management of fishing capacity to balance available resources;
9. Support the efforts to promote low carbon development technologies by minimizing the contribution of the fisheries sector to greenhouse gas emissions, with emphasis on promoting the use of energy-efficient equipment and alternative energy sources;
10. Enhance resilience of fisheries communities in anticipating and adapting to changes in the environments of inland and coastal waters, including those caused by climate change, which could adversely affect communities in their operations of fisheries and aquaculture;
11. Increase awareness and support the reduction of impacts of aquatic pollution and marine debris, including abandoned, lost or otherwise discarded fishing gear (ALDFG), and microplastics/microbeads on fisheries and aquaculture;
12. Strengthen knowledge, including local knowledge, and science-based development and management of fisheries by enhancing the national capacity to collect, analyze, and share fisheries data and information;
13. Improve the working conditions of people engaged in fisheries activities, and strengthen measures for safety of fishing vessels taking into consideration the specificity of fisheries of the region;
14. Enhance awareness of the contributions that inland fisheries have on food security and livelihoods, and ensure that the well-being of fishery resources and stakeholders are taken into consideration when undertaking development projects that could impact on the sustainability of inland fisheries;
15. Promote inter-agency coordination of the multiple uses of inland aquatic resources to conserve inland aquatic habitats;
16. Strengthen aquaculture governance and implement good aquaculture practices to sustain production for food safety and security, sustainable livelihoods, and rural development;
17. Promote cooperation among AMSs and with international and regional organizations to support the implementation of good aquaculture practices through joint research, technology transfer, and human resource development;
18. Mitigate the potential impacts of aquaculture on the environment and biodiversity including the spread of pathogens of aquatic animals caused by over-intensification of aquaculture operations, inappropriate implementation of aquatic animal health management, and uncontrolled introduction and movement of aquatic species;
19. Promote joint ASEAN approaches and positions in international trade in fish and fishery products produced in the region, by harmonizing the standards, criteria, and guidelines, and developing mutually-recognized agreements on sustainability and food safety management systems;
20. Support the competitiveness of the ASEAN fish trade through the development of procedures and programs that would certify, validate, or otherwise indicate the origin of fish and fishery products to improve product traceability, sustainable fishing practices, and food safety, in accordance with international and national requirements;
21. Optimize the utilization of catch/harvest by reducing post-harvest losses and wastes to increase fish supply and improve economic returns through promotion of appropriate technologies, facilities and best practices along the supply chain;

22. Improve and exchange technologies, and enhance facilities to ensure that fish quality assurance and safety management systems are in place and operational, taking into account the importance of traditional fishery products and food security requirements, and promote the development of fishery products as supplementary livelihoods for fisheries communities;

23. Support the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 adopted by the Senior Officials of the ASEAN-SEAFDEC Member Countries on [Date]; and to

24. Pledge our commitment to fully support this Resolution, and task the ASEAN Senior Officials to implement necessary actions and report the progress in the advancement of sustainable fisheries that contribute to a prosperous, stable, and peaceful ASEAN Community;

AND DO HEREBY DECIDE,

That the Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 be implemented as soon as possible and use the *Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030* adopted by the Senior Officials of the ASEAN-SEAFDEC Member Countries on the occasion of the Special Senior Official Meeting of the 41st ASEAN Ministerial Meeting on Agriculture and Forestry (SSOM-41st AMAF) held on xx August 2020 in Brunei Darussalam, and the Senior Official of Japan responsible for fisheries through *ad referendum*, as priority actions for formulating and implementing programs, projects, and activities by the AMSs and through the appropriate ASEAN-SEAFDEC mechanisms.

Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030

The Senior Officials of the ASEAN-SEAFDEC Member Countries on the occasion of the Special Senior Officials Meeting of the 41st ASEAN Ministerial Meeting on Agriculture and Forestry (SSOM-41stAMAF) on xx August 2020 in Brunei Darussalam, with the Senior Official of Japan responsible for fisheries through *ad referendum*, taking into consideration the priority actions stipulated in the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 adopted by the Senior Officials responsible for fisheries of ASEAN-SEAFDEC Member Countries during the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020 “Fish for the People 2020: Adaptation to a Changing Environment” in 2011, as well as the emerging issues; and

Guided by the (Draft) Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030, and the need to enhance collaboration among government agencies that have the responsibility for fisheries and fisheries-related issues in order to harmonize policies, plans and activities that support sustainable fisheries, food safety and security at the national and regional levels;

Recognizing the progress made by the ASEAN Member States (AMSs) in the implementation of the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020;

Recalling the initiatives of the AMSs to adopt the policy frameworks and instruments developed through the ASEAN-SEAFDEC Strategic Partnership (ASSP);

HEREBY DECIDE

That the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 should serve as priority actions for AMSs in developing and implementing programs, projects, and activities in support of the implementation of the Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030.

A. Planning and Information

1. Integrate the planning of marine capture fisheries, inland capture fisheries, and aquaculture sub-sectors to promote sustainable development of the fisheries sector, including harvesting and post-harvest in both capture fisheries and aquaculture;

2. Strengthen the capacity to plan for sustainable fisheries in the context of changing socio-economic and ecological environments through the mobilization of the most up-to-date data and information, and the provision of appropriate policy summaries for decision makers;

3. Strengthen national statistical mechanisms for fisheries and aquaculture including data collection disaggregated at species level, and exchange of statistical data; and include collection/compilation of non-routine data and information, *e.g.* from fish consumption surveys, species composition, biological information, as well as local and indigenous knowledge, with the aim of improving the valuation of fisheries including monitoring of their performance;

4. Establish reference points, and come up with estimated biomass or capacity level to determine the maximum sustainable yield, allowable biological catch, or allowable effort for marine and inland fisheries;

5. Strengthen the collection of data and information, where relevant, on species under international concern, *e.g.* sharks and rays, sea turtles, catadromous eels, aquatic mammals, etc., and harmonize/standardize data collection methods among countries in the region;

6. Enhance regional fishery information systems and mechanisms to facilitate sharing, exchange and compilation of statistics and information required at the sub-regional and regional level, and apply where appropriate, regionally standardized definitions and classifications for statistical data to facilitate regional compilation, analysis, and data exchange;

7. Coordinate, decentralize and enhance the sharing of relevant statistics and fisheries-related data and information between the national fisheries and other authorities including those responsible for food security, environment, trade, aquaculture, water resources, agriculture/forestry, wetlands, migration/employment, and rural development;

8. Promote the use of simple and practical indicators that had been developed, for planning, monitoring, and evaluation of fisheries in support of achieving sustainability;

9. Share and exchange information on research findings, good practices, and experiences among countries, including national and regional institutions;

B. Fisheries Management

10. Regularly review, update and strengthen national fisheries policies, legal and institutional frameworks through consultation and engagement of government agencies, the private sector, fishers, civil society, and other relevant stakeholders;

11. Accelerate the development of fisheries management plans as basis for fisheries conservation and management;

12. Implement measures to prevent unauthorized fishing and eliminate illegal fishing practices, <i>e.g.</i> strengthening enforcement of laws and regulations, establishing monitoring control and surveillance (MCS) mechanisms and network, developing and promoting responsible fishing practices, encouraging supplementary livelihood options;
13. Enhance implementation of comprehensive policies for fisheries management through (i) licensing systems (boats, gear, and people); (ii) rights-based fisheries; (iii) supportive legal and institutional frameworks; (iv) strengthened institutional cooperation; and (v) streamlined co-management;
14. Strengthen the adoption of fisheries management approaches, <i>e.g.</i> co-management and ecosystem approaches to fisheries management, at all levels with all relevant stakeholders involved in the process of planning and policy formulation for management of natural resources, conservation, rehabilitation of habitats and protective geographical features, and improvement of human well-being;
15. Strengthen the capacity of fisheries communities and the capability of fisheries-related organizations (<i>e.g.</i> by empowering such organizations as appropriate) to implement necessary actions towards increased resilience, improved livelihoods, adoption of supplementary livelihoods, and poverty alleviation, in support of achieving sustainable development with gender integration in the process;
16. Enhance the participation of local communities, fisheries-related organizations, and other stakeholders in fisheries management and in fisheries and stock assessments by providing data, local ecological information, and traditional knowledge on the status of fisheries and stocks;
17. Raise awareness of the need to develop financial incentives, especially for small-scale stakeholders and cooperatives, <i>e.g.</i> micro-credit, with national and regional institutional assistance for the responsible development of fisheries enterprises and developmental activities that optimize economic returns;
18. Enhance the efficient use of energy by adapting appropriate technologies for fishing gear and fishing vessel design, and fishing operations; and promote the use of alternative energy sources;
19. Improve the capability of fishing crew and workers in fishing industry, and conduct educational and skills development program for new crew members and workers entering the industry; while also adopt appropriate technologies to optimize number of crew onboard fishing vessels;
20. Promote the implementation of good and appropriate employment practices in accordance with domestic laws and regulations or relevant international instruments;
21. Enhance the capacity of relevant authorities and communities to collaboratively resolve conflicts on resources utilization;
22. Explore the potential of under-utilized fishery resources through comprehensive fishery resources surveys, and promote their exploitation in a precautionary manner based on analysis of the best available scientific information;
23. Encourage the implementation of the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) and promote the collection of sex-disaggregated statistics on fishers and fish workers in the fish value chain;
24. Promote fair distribution of benefits gained from both intra-regional and international trade of fish and fishery products among small-scale actors along the whole value chain;
25. Monitor and assess the perceived impacts of climate change to fisheries and aquaculture; and adjust existing programs to take into consideration the effects of climate change and natural disasters, focusing on the programs for (i) developing appropriate adaptation and mitigation plans; (ii) integrating fisheries and habitats management; (iii) enhancing community resilience through livelihood diversification; (iv) strengthening local organizations; and (v) promoting safety at sea and other priority areas;
26. Assess and manage the impacts of aquatic pollution and marine debris, including abandoned, lost, or otherwise discarded fishing gear (ALDFG) and microplastics/microbeads, on fisheries and aquaculture;
27. Foster cooperation with other countries for the conduct of stock assessment on straddling, transboundary, highly migratory, and shared fishery resources, as appropriate, to serve as inputs for formulating science-based fishery management plan; and strengthen sub-regional and bilateral cooperation including inter-agency cooperation for management of such resources;
Marine Fisheries
28. Strengthen the implementation of measures and activities to combat IUU fishing by ensuring compliance with national laws and regulations, and with the provisions of relevant international instruments; encourage the development and implementation of national plans of action to combat IUU fishing; promote inter-agency coordination for effective implementation of laws and regulations; and enhance awareness and understanding of applicable international and regional instruments and agreements through information dissemination campaigns;
29. Establish and strengthen regional, sub-regional, and bi-lateral coordination on fisheries management and efforts to combat IUU fishing; and where appropriate promote the establishment of Monitoring, Control and Surveillance (MCS) network through inter-agency coordination and information sharing;

30. Mobilize regional/sub-regional collaboration frameworks and tools for combating IUU fishing, <i>e.g.</i> <i>Regional Plan of Action to Promote Responsible Fishing Practices</i> including Combating Illegal, Unreported and Unregulated Fishing (RPOA-IUU); ASEAN Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity); Regional Fishing Vessels Record (RFVR); ASEAN Catch Documentation Scheme (ACDS), and the use of technologies to support monitoring and surveillance of fishing activities, <i>e.g.</i> Vessel Monitoring System (VMS), traceability systems;
31. Support consultative dialogues at regional/sub-regional level among fisheries legal officers to share and exchange information on updated legal and regulatory frameworks in addressing issues in fisheries management;
32. Improve the capacity of relevant national authorities to effectively implement the requirements of port State measures and flag State responsibilities;
33. Intensify research on the impacts of various fishing gear types and methods on the ecosystem and populations of aquatic animals, and develop and promote environment-friendly fishing practices, <i>e.g.</i> low impact and fuel efficient (LIFE) fishing gears/methods;
34. Mitigate bycatch and discard concerns including excessive catch of juvenile fish by promoting the adoption and implementation of relevant regional and international guidelines, <i>e.g.</i> FAO International Guidelines on Bycatch Management and Reduction of Discards;
35. Promote resource enhancement approaches with appropriate monitoring and evaluation programs, <i>e.g.</i> deployment of appropriate resource enhancement structures, restocking of commercially-important aquatic species, and restoration of degraded habitats, taking into consideration possible socio-ecological impacts;
36. Apply the concept of fisheries <i>refugia</i> in line with the Regional Guidelines on the Use of Fisheries <i>Refugia</i> for Capture Fisheries Management in Southeast Asia to complement the existing conservation and management measures, including the integration of fisheries with habitats management;
37. Promote the adoption of different management approaches to sustainably manage major critical coastal habitats, <i>e.g.</i> mangroves, coral reefs and seagrasses; and develop and disseminate information and guidance on the use of appropriate tools and interventions;
38. Enhance safety at sea, decent working conditions and implementation of onboard fishing vessels sanitation, including the development of new design for fishing vessels, in compliance with relevant international standards;
39. Assess the possible impacts of subsidies on fisheries, particularly on the special requirements and the needs of small-scale fisheries in the region;
Inland Fisheries
40. Establish and implement comprehensive policies and supporting legal and institutional frameworks, and adopt ecosystem approaches to inland fisheries management that devolve co-management responsibilities to the local authorities and stakeholders, strengthen the rights of communities, and promote rights-based fisheries;
41. Enhance awareness of the importance of inland fisheries for local food security, and the importance of rehabilitating and restoring habitats for migratory inland aquatic animals, restocking indigenous aquatic species to enhance productivity (with monitoring and evaluation of restocking programs) and encouraging culture-based inland fisheries, where appropriate;
42. Monitor the impacts, and mitigate the negative impacts of invasive/alien species on the inland ecosystem and biodiversity;
43. Strengthen inter-agency coordination (national/sub-regional) on multiple-use water resources of the wetlands/flood-plains to sustain inland fisheries, mitigate conflicts among users and also encourage better coordination to address transboundary inland fisheries management issues;
44. Promote Research and Development (R&D) to understand the migration patterns, spawning grounds and seasons, and nursery grounds of important inland aquatic animals; and ensure the sustainability of inland fisheries by maintaining health of the ecosystem, particularly the inter-connectivity of habitats and the specific management needs during the dry season;
45. Monitor and assess the impacts of the construction/operations of man-made structures that could alter the water ways and affect migration and spawning of aquatic animals, particularly those at risk of overexploitation, and develop mitigating measures and appropriate conservation and management measures for such impacts through consultative processes that may involve collaboration with regional organizations;
46. Encourage coordinated planning and management on the use of inland water bodies including rivers, floodplains, wetlands, etc. through (i) resource enhancement programs; (ii) inland fisheries management programs; (iii) environmental impact assessment of structures on the aquatic resources; and (iv) restocking of indigenous and/or commercially-important aquatic animals species taking into consideration concerns on genetic diversity; and build/improve the capacity of human resources and institutions in the implementation of such programs;

47. Formulate guidelines to promote the use of practical and simple indicators for inland/floodplain fisheries within the national inland fisheries management framework, to facilitate (i) timely local level fisheries management decisions with due respect to the large number of people/farmers that take part in fishing; (ii) dialogues to ensure that the inter-connectivity of fish migration path is kept as a tool for management/conservation measures; and (iii) adaptation to the effects of climate change within water bodies;
C. Aquaculture
48. Strengthen national programs and policies on aquaculture address social, economic, and environmental aspects of sustainable aquaculture to improve food security, livelihoods, and employment, and alleviate poverty by (i) providing the mechanisms and enabling policies for good aquaculture practices, efficient markets and fair trade; (ii) strengthening the capacity of small-holder fish farmers; and (iii) promoting inter-agency collaborations;
49. Develop and implement ASEAN guidelines for environment-friendly and responsible aquaculture and good aquaculture practices that cover (i) integration of quality and safety management systems for products with significant trade potentials; (ii) use of chemicals in aquaculture in relation to food safety; (iii) development of product traceability systems from farm to market; and (iv) implementation of quarantine and inspection/ sampling procedures and Sanitary and Phytosanitary (SPS) measures for aquaculture products to ensure food safety;
50. Integrate aquaculture into rural development activities within the context of multiple-use of land and water resources through inter-agency coordination in policy formulation, project planning and implementation, stakeholder consultation, extension services and technology transfer; and participate in and provide support to regional initiatives that assess the role of aquaculture in poverty alleviation for better policy formulation;
51. Explore the use of advanced technologies for marine (inshore and offshore) and inland aquaculture, including the development of full-cycle breeding and aquaculture technologies for selected high-value species;
52. Implement measures or strategies at national and local levels to: (i) monitor and regulate aquaculture operations; (ii) prevent over intensification of aquaculture; and (iii) ensure that activities are carried out in a sustainable manner and that aquatic animal welfare is taken into consideration as appropriate; (iv) effectively enforcing regulations to avoid conflict in the use of common resources; and (v) adopt the concept of environmental carrying capacity including the implementation of good aquaculture practices;
53. Provide government support for R&D on: (i) improving existing genetic resources; (ii) assessing the impact of climate change on aquaculture; and (iii) improving the feeding and aquatic animal health management;
54. Promote the production and distribution of specific pathogen-free (SPF) and specific pathogen-resistant (SPR) broodstock and seeds through: (i) establishment of certified government or private hatcheries as sources of quality seed; (ii) dissemination of new breeding technologies and techniques for the effective distribution and maintenance of genetically-improved strains; and (iii) implementation of sound policies that promote better hatchery management practices, including the responsible collection and use of wild broodstock and seed;
55. Improve aquatic biosecurity by providing support to: (i) research on the development of domesticated, genetically improved, specific pathogen-free (SPF), and specific pathogen-resistant (SPR) aquaculture species; and (ii) small-scale hatchery operators and farmers to access healthy broodstock and improve their ability to adopt, at the farm level, the established techniques for aquatic animal health management;
56. Formulate and implement complementary and supportive policies that will: (i) build the capacity of fish farmers and hatchery operators in adopting broodstock and hatchery technologies and innovations; (ii) enhance fish farmers and hatchery operators' access to SPF/SPR broodstock and seeds produced through farmer-friendly broodstock management methods; (iii) foster strong cooperation between the public and private sectors engaged in development and dissemination of quality broodstock and seed stock; (iv) strengthen the capacity of fish farmers' groups, e.g. by empowering fish farmers' groups; and (v) promote development of a skilled workforce for the aquaculture industry;
57. Encourage good and appropriate employment practices in accordance with domestic laws and regulations or relevant international instruments;
58. Raise awareness of the need to develop financial incentives and micro-credit, with national and regional institutional assistance, for the responsible development of aquaculture enterprises and developmental activities that optimize economic returns;
59. Reduce the risk of negative environmental impacts, loss of biodiversity, and disease transmission by regulating the introduction and movement of aquatic organisms in accordance with relevant regional and international guidelines, e.g. the Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals;
60. Continue national efforts to prevent and control serious disease outbreaks by providing government support to: (i) R&D following standard procedures (e.g. OIE standards) in handling emerging diseases and

surveillance of transmission of diseases; and (ii) regional initiatives on harmonization of regional disease control standards, disease reporting, and implementation of contingency plans to handle emerging diseases;
61. Further enhance capabilities in the diagnosis and control of aquatic animal diseases through: (i) continued support in development of technology and techniques for disease identification; (ii) promotion of the widespread use of users friendly, field-friendly, rapid and standardized diagnostic tests; and (iii) establishment of regional and inter-regional referral systems, including the designation of reference laboratories and timely access to fish health experts within the region;
62. Strengthen the implementation of regional warning systems on aquatic animal health and diseases to inform other AMSs of relevant epidemiological events and to raise awareness of emerging pathogens that may pose risks. Build emergency preparedness capacity through rapid and timely responses to reduce potential catastrophic consequences of emerging diseases as highlighted by ASEAN Network of Aquatic Animal Health Centres (ANAAHC);
63. Promote the prudent use of legal antibiotics in aquaculture, and monitor the impacts of Antimicrobial Resistance (AMR) on aquatic animals;
64. Improve the efficient use of aquafeeds by regulating the quality of manufactured feed and feed ingredients, and support continued/applied research for developing suitable alternative protein sources that will reduce the cost and dependence on fish meal and other fish-based products, and subsequently promote regional sharing of information on feed ingredients; encourage the culture of species requiring no or low fish meal content in their feed and application of effective feeding management practices, taking into account the need for cultural and social acceptance of feed ingredients;
65. Undertake risk assessment of the culture of exotic aquatic species, and establish measures to prevent the escape of high risk species and their possible impacts on the natural ecosystem and biodiversity;
66. Improve human resource capabilities for responsible aquaculture through: (i) closer public and private sector collaboration in R&D, paying particular attention to the need for advanced skills in biotechnology and assessment of the efficacy and economics of the use of probiotics and immunostimulants including vaccines; and (ii) effective implementation of aquaculture education and extension services;
67. Formulate and implement national policies and strategies that will enable the aquaculture sector to adopt measures to mitigate the potential impacts of climate change and environmental stressors by providing support to R&D on climate change, and other environmental-related issues to increase resilience, strengthening the overall capacity of various stakeholder groups and fostering cooperation within the aquaculture sector and with other sectors, and developing standard procedures for disaster risks reduction in aquaculture;
68. Apply precautionary approach to safeguard the environment from the over-intensification and expansion of inland, coastal and offshore aquaculture;
69. Conduct risk assessment and R&D related to the use of Genetically Modified Organism (GMO) products in aquaculture (e.g. broodstock and aquafeeds) including food safety issues;
D. Optimal Utilization of Fish and Fishery Products
70. Strengthen support for the development and application of technologies and best practices that optimize the utilization of catches/farmed products, reduce post-harvest losses and wastes, value-add byproducts and valorize fish waste/trimmings in commercial and small-scale fisheries, aquaculture, and processing operations, through improved processing, facilities and infrastructure development, onboard and onshore handling, and storage, distribution and marketing of fish and fishery products;
71. Promote the production of and preserve the diversity of traditional fish products by assisting producers to secure stable supplies of quality raw materials and meet food safety requirements; and improve product identity, nutritive value and marketing. In the process, promote the identity of and other initiatives on local fishery products;
72. Strengthen fish quality and safety management systems that support the competitive position of ASEAN fish and fishery products in the world markets, including possible adoption of cold chain management standards and moving towards ISO22000 and ISO/IEC 17025 accreditation of national fish inspection laboratories; enhance capacity and acknowledge the recognized national laboratories, risk analysis and equivalence agreement, e.g. the Mutual Recognition Agreement (MRA); and promote the implementation of the quality and safety management systems among small and medium enterprises in the AMSs;
73. Encourage relevant control agencies at all levels to apply appropriate legislation and coordinated activities regarding the handling, processing, distribution, storage, marketing, quality, and safety of fish and fishery products;
74. Promote and conduct training programs and develop training materials to upgrade the technical skills and competencies of personnel in the public and private sectors on fisheries post-harvest technologies, and food quality and safety management systems;
75. Raise awareness of the need to develop financial incentives and micro-credit, with national and regional institutional assistance for the responsible development of fisheries and aquaculture enterprises, and developmental activities that optimize economic returns;

76. Encourage good and appropriate employment practices in accordance with domestic laws and regulations or relevant international instruments;
77. Adopt standards and guidelines for handling fish and fishery products, and implement hygienic fish handling onboard fishing vessels and provide training on fish and fishery products handling as part of the requirements for issuance of permits at all levels for fish vessel crews;
E. Fish Trade
78. Strengthen cooperation among AMSs to implement international standards with regards to trade in fish and fishery products within the ASEAN;
79. Implement regional/ASEAN standards (e.g. ASEAN Good Aquaculture Practices (ASEAN GAqP), ASEAN Shrimp Good Aquaculture Practices (ASEAN Shrimp GAP), and ASEAN Policy Guidelines on Standards and Conformance) applicable for fishery and aquaculture products that are in line with international requirements and applicable to the region; and promote such standards to be acceptable by importing markets;
80. Encourage the implementation of appropriate international standards and strengthen programs relevant to Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT) measures, R&D, as well as capacity building and awareness raising on fish trade-related issues;
81. Encourage, as appropriate, the development of national laws, rules and regulations on trading of species in accordance with relevant rules of international law;
82. Strengthen cooperation and mechanisms among AMSs to work towards common positions that could be reflected in international fish trade related fora, e.g. World Trade Organization (WTO), Food and Agriculture Organization of the United Nations (FAO)/COFI Sub-committee on Fish Trade, Office International des Epizooties (OIE), <i>Codex Alimentarius</i> Commission (CAC), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
83. Engage the private sector (e.g. ASEAN Seafood Federation) in addressing trade-related issues, and in collaborative efforts to promote and sustain regional and international trade;
84. Assist small-scale producers to comply with standards on safety and quality of fish and fishery products by providing support programs including capacity building;
85. Assist small-scale producers from both capture fisheries and aquaculture in securing and maintaining access to markets at the national, regional and international levels, and in the process, develop marketing systems that are not capital intensive but are accessible for local producers;
86. Apply traceability systems with mechanisms as needed to certify or validate the information for the whole supply chain by harmonizing AMSs' inspection systems in line with international standards and strengthening port inspections process to improve traceability;
87. Encourage and provide guidance to develop/improve branding or eco-labeling of fish and fishery products that demonstrate the eco-friendly and socially acceptable nature of ASEAN products, including organic standards and coordination of Halal requirements;
F. Regional and International Policy Formulation
88. Increase participation and involvement of AMSs in international fora and technical committees, e.g. CITES, CAC, FAO, OIE, Regional Fisheries Bodies (RFBs), and WTO; and promote ASEAN interest, recognizing that fisheries policies of relevance to the ASEAN are increasingly discussed and agreed upon at the global level.

**PREPARATION FOR
SOUTHEAST ASIAN STATE OF FISHERIES AND AQUACULTURE
(SEASOFIA) 2022**

I. BACKGROUND

Information on the status and trends of fisheries is widely recognized as crucial in serving as basis for sustainable development and management of fisheries. SEAFDEC throughout the past decades had undertaken several activities to compile various forms of fishery-related data and information, *e.g.* regional fishery statistics based on the national statistics data provided by the Southeast Asian countries, as well as other data and information from different SEAFDEC programs/projects. In order to ensure that the outputs from these initiatives could be integrated or digested into information that support the development and management for sustainable fisheries of the region, SEAFDEC in 2010 undertook a pilot exercise in developing the publication on “The Southeast Asian State of Fisheries and Aquaculture” or “SEASOFIA”. Such endeavor was meant to provide platform for compilation of synthesized data and information generated from various programs of activities, while incorporating other data and information available in the region, in order to provide better understanding on the status and trends of fisheries and aquaculture of the region.

While taking into consideration the usefulness of the SEASOFIA especially as a tool in providing a platform for integrating regional data and information and in coming up with information to support policy planning and management of fisheries, the SEAFDEC Council during its 44th in 2012 Meeting agreed that the SEASOFIA could be published on a regular basis, *i.e.* every 5 years. It was also suggested that future production of the publication should be done in close coordination with other agencies that produce similar publications in order to avoid possible redundancies of the contents. Specifically, the SEASOFIA could focus on the analysis of the specificity of fisheries in the Southeast Asian region and could include the reasons behind the changing trends of fishery production in respective Southeast Asian countries. An analysis of the respective countries’ policy directions and management policies, as well as of over-exploitation or under-exploitation of stocks should also be included in the publication. In order to minimize production costs and enhance dissemination, the publication could be produced in electronic format, *e.g.* in CD-ROM format or make the publication accessible through the SEAFDEC website.

II. SEASOFIA 2022

As the first publication of SEASOFIA was produced in 2012 and subsequently in 2017, SEAFDEC therefore propose to prepare the next SEASOFIA in 2022.

2.1 Workplan

The workplan and timeframe for the Secretariat and Departments in preparation of SEASOFIA is as follow:

Activity	2020				2021				2022			
	1	2	3	4	1	2	3	4	1	2	3	4
• Discussion on proposed outline of SEASOFIA 2022 at the Consultation												
• Submit the proposed outline to 43 rd PCM												
• Preparation of inputs from contributors												
• Submit the proposed outline to the 53 rd CM												
• Submission of inputs from contributors to the Secretariat												
• Discussion among SEAFDEC staff on the draft content at the Consultation												
• Finalization of the draft content and submit to the 44 th PCM												

Activity	2020				2021				2022				
	1	2	3	4	1	2	3	4	1	2	3	4	
• Circulation of the draft Member Countries through NC for comment													
• Finalization of content and layout for publishing													
• Submit the final draft of SEASOFIA 2022 to the 54 th Council Meeting for approval													
• Production and dissemination of SEASOFIA 2022													

2.2 Publication Team

Advisory Board

- SEAFDEC Secretary-General and Chief of SEAFDEC/TD
- SEAFDEC Deputy Secretary-General and Deputy Chief of SEAFDEC/TD
- Chief of SEAFDEC/MFRD
- Chief of SEAFDEC/AQD
- Chief of SEAFDEC/MFRDMD
- Chief of SEAFDEC/IFRDMD
- SEAFDEC Senior Advisor

Editorial Board

- Information Program Coordinator, SEAFDEC Secretariat
- Policy and Program Coordinator, SEAFDEC Secretariat
- SEASOFIA Coordinator of SEAFDEC Secretariat
- SEASOFIA Coordinator of SEAFDEC/TD
- SEASOFIA Coordinator of SEAFDEC/MFRD
- SEASOFIA Coordinator of SEAFDEC/AQD
- SEASOFIA Coordinator of SEAFDEC/MFRDMD
- SEASOFIA Coordinator of SEAFDEC/IFRDMD
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- Ms. Virgilia T. Sulit, Technical Writer
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Contributors

- SEAFDEC National Coordinators
- Others (to be listed)

III. FREQUENCY IN PRODUCTION OF SEASOFIA

During the 44th Meeting of the SEAFDEC Council in 2012 when SEAFDEC published the first issue of SEASOFIA, it was agreed that the compilation of issues in the SEASOFIA could be done every 5 years. Nevertheless, the 42nd Meeting of the SEAFDEC Program Committee in 2019, SEAFDEC was requested to consider harmonizing the timeline between SOFIA (published every 2 years) and SEASOFIA, *e.g.* publishing SEASOFIA every two or four years.

This matter was subsequently discussed among the Secretariat and Departments at the SEAFDEC Department Chiefs' Meeting (DCM), and the difficulties were expressed in coming up with more frequently, *i.e.*:

- Differences in the coverage of SOFIA and SEASOFIA: SOFIA provides global view and policy recommendations on fisheries and aquaculture, as well as more updates on the changing fisheries situation, and the issues and challenges from the different regions of the world. SEASOFIA on the

other hand, focuses on the Southeast Asian setting where the information and policies in fisheries and aquaculture do not change very frequently, thus, the necessary information might not have much updated within few years.

- Other publications produced more frequently by SEAFDEC include relevant information on the issues and concerns in fisheries development of Southeast Asia, *e.g.* Fishery Statistical Bulletin of Southeast Asia (annually) contains a summary part that provides information on production trends, articles in Fish for the People (3 issues/year) that address the issues and challenges in fisheries, and relevant regional initiatives
- The limited number of staff of the SEAFDEC Secretariat and Departments to develop, contribute, and finalize articles for the SEASOFIA

SEAFDEC therefore propose to maintain the production of SEASOFIA every 5 years as currently practiced.

VI. REQUIRED CONSIDERATION BY THE COUNCIL

The Council is requested to take note on the proposal for production of SEASOFIA 2022 and consider the frequency for production of SEASOFIA as proposed by the Secretariat. The Council may wish to provide further directives for the production of SEASOFIA.

REVISION OF REGIONAL FRAMEWORK FOR FISHERY STATISTICS OF SOUTHEAST ASIA

I. BACKGROUND

SEAFDEC has been undertaking initiatives in compiling fishery statistics from the Member Countries bordering the South China Sea Areas since 1978. Harmonization of data is an important issue in order to facilitate compilation and exchange of fishery statistics at various levels, *i.e.* regional and international levels. To facilitate such compilation and exchange of statistics, SEAFDEC developed the “Regional Framework for Fishery Statistics of Southeast Asia”, *i.e.* to harmonize “standard definitions and classifications” with the international standards, and on “area of coverage” and “statistical usage” to be consistent with the areas of competence of SEAFDEC. The Framework has been using for the compilation of fishery statistics from the Southeast Asian countries to SEAFDEC since 2008. While the Framework of Fishery Statistics of Southeast Asia would be beneficial to the countries as this could be used as a guide to facilitate a long-term improvement of their fishery statistics at the national level; the Framework is also envisaged to serve as a comprehensive guide on the “Minimum Requirement” for the Southeast Asian in the development/improvement of national fishery statistics to support sustainable fisheries management and policy planning. In addition, as the Framework is harmonized with the international standards, classifications and definitions, it would also be used as a coordinated structure to facilitate the compilation and sharing statistics and information from Member Countries and contribute to the analysis fishery statistics and information in order to provide a clearer picture on the fishery sector at the regional and global levels.

Nevertheless, after 2008, there are still more development of new standards by the FAO Coordinating Working Party (CWP) on Fishery Statistics. In August 2017, SEAFDEC organized the “Regional Technical Consultation (RTC) on Fishery Statistics and Information in Southeast Asia”, where the Southeast Asian countries were updated with the recent development by the CWP of new global frameworks related to fishery statistics. During the RTC, the initial recommendations were provided to the participants on the new CWP standards. It was agreed that after the adoption of the new CWP standards (*i.e.* at the 26th Session of the Coordinating Working Party (CWP) on Fishery Statistics in 2019), SEAFDEC should organize a meeting among the members of the ASEAN Network on Fishery Statistics to revise the Regional Framework for Fishery Statistics of Southeast Asia. Other areas for improving regional fishery statistics were also discussed and agreed upon during the RTC, *e.g.* inclusion of statistics on fish trade and fish processing.

II. REVISION OF THE REGIONAL STATISTICS FRAMEWORK

In line with the recommendations from the RTC in 2017, SEAFDEC therefore plans to prepare a series of regional technical consultations to gather inputs for revision of the Regional Framework for Fishery Statistics of Southeast Asia. The RTCs will be conducted with the participation of representatives from the ASEAN Member States (AMSs) and relevant organization, *e.g.* FAO, to seek views and inputs for updating the Regional Framework of Fishery Statistics in Southeast Asia, as well as to discuss some areas for improvement/incorporation in the Fishery Statistics Bulletin produced by SEAFDEC with data inputs from the AMSs.

The content of the Regional Framework for Fishery Statistics of Southeast Asia, with issues for possible revision shown in underlined text, are as follows:

I Background and Importance

II Purpose and Usage

2.1 Minimum Requirement for Fishery Statistics of Southeast Asia

2.2 Framework of Inputs for the Development of International Norms and Standards

2.3 Facilitate Sharing of Fishery Information

III Coverage

3.1 Statistics Coverage

3.2 Geographical Coverage

3.3 Fishery Structure and Sub-sectors

3.3.1 Statistics on Capture Fisheries

3.3.1.1 Marine Capture Fishery

- Coverage and Definition
- Marine Capture Production
 - Production in quantity
 - Production in value
 - Production by species
 - Production by type of fishing gear
 - Fishing vessels
 - Fishing units

3.3.1.2 Inland Capture Fishery

- Coverage and Definition
- Inland Capture Production
 - Production in quantity
 - Production in value
 - Production by species
 - Production by type of water bodies
 - Production by type of fisheries

3.3.2 Statistics on Aquaculture

- Coverage and Definition
- Aquaculture Production
 - Production in quantity
 - Production in value
 - Production by culture environment
 - Production by species
 - Production by methods of culture (*e.g.* ponds and tanks, enclosures and pens, cages, etc.)
 - Production by species of ornamental fishes
 - Artificial seed production
 - Aquaculture unit
 - Area under culture

3.3.3 Statistics on Fishers and Fish Farmers

- Coverage and Definition
- Classification of fishers and fish farmers (full-time, part-time, occasional)
- Number of fishers and fish farmers by gender

3.3.4 Statistics on Fish Price

- Coverage
- Definition of Price
- Unit of Price

3.3.5 Statistics on Fish Processing

- Coverage
- Classification and Definition
- Counting principles for the number of processing establishments
- Quantity

3.3.6 Statistics on Export and Import of Fishery Commodities

- Coverage
- Classification and Definition
- Quantity and Value

IV List of Appendices

1. Classification of Fishing Areas (based on FAO Major Fishing Areas as adopted in 2015)
2. Classification of Small-scale and Commercial Fisheries
3. List of Aquatic Animals and Plant (based on International Standard Statistical Classification of Aquatic Animals and Plants (ISSCAAP) will be adopted in 2020 or 2021)
4. Classification of Fishing Gears (based on International Standard Statistical Classification of Fishing Gear (ISSCFG) (adopted by 25CWP in 2016))
5. Classification of Fishing Vessels (based on International Standard Statistical Classification of Fishery Vessels (ISSCFV))
6. Classification of Aquaculture and Capture Fisheries Practices (the updated version will be adopted in 2020 or 2021)
7. Classification of Fishers and Fish Farmers (based on ISCO-88 International Standard Classification of Occupations)
8. Classification of Fishery Commodities for Export and Import Statistics (based on International Standard Statistical Classification on Fishery Commodity (version: July 2019)

III. WORKPLAN AND TIMEFRAME

Activity	2020			2021				2022				2023				2024			
	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
• Seeking support on the proposed revision of Regional Framework of Fishery Statistics of Southeast Asia at the 52CM																			
• The First RTC to gather inputs for revision of the Regional Framework of Fishery Statistics of Southeast Asia and Harmonization of Questionnaires of Statistics																			
• The Second RTC to gather inputs for revision of Regional Framework of Fishery Statistics of Southeast Asia and Harmonization of Questionnaires of Statistics																			
• Accommodating inputs for development of revised draft Regional Framework of Fishery Statistics of Southeast Asia																			
• The Third RTC for Revision of Regional Framework of Fishery																			

Activity	2020			2021				2022				2023				2024			
	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Statistics of Southeast Asia and Harmonization of Questionnaires and Mechanism for Reporting of Statistics																			
• Seeking approval and endorsement of the revised Regional Framework of Fishery Statistics of Southeast Asia by the Council																			
• Publishing of the Revised Regional Framework of Fishery Statistics of Southeast Asia																			

IV. REQUIRED CONSIDERATION BY THE COUNCIL

The SEAFDEC Council is requested to support the proposed revision of Regional Framework for Fishery Statistics of Southeast Asia and to provide further directives for modification of statistics framework.

OPERATIONS OF SEAFDEC TRAINING AND RESEARCH VESSELS

EXECUTIVE SUMMARY

The Southeast Asian Fisheries Development Center/Training Department (SEAFDEC/TD) operates two training/research vessels constructed with financial support from the Government of Japan. The vessels of SEAFDEC/TD include 1) M.V. SEAFDEC and 2) M.V. SEAFDEC 2. Over the years, they have been utilized mainly for research and training activities which are envisaged to deliver intensive practical experiences and expertise at sea to ensure effective technology transfer and assessment of national fisheries resource status in the waters of the SEAFDEC Member Countries and other government-related agencies upon the request. In this connection, TD has been providing technical assistance and facilities for research and training programs through these two vessels for regional, sub-regional and national activities including (1) Marine fisheries resources research survey; (2) Marine environmental oceanographic research survey; (3) Shipboard training on fishing technology, navigation, and marine engineering; and (4) Sea trial on fishing operation, oceanographic instruments, and deck machineries.

In 2019, M.V. SEAFDEC 2 has served for a total period of fifty-six (56) days at sea, including twenty-five (25) days of sea trial on the mid-water trawl operation in Sarawak waters, Malaysia. Five (5) days were allocated for supporting the shipboard training on the Observer onboard Program of Department of Fisheries Thailand. Three (3) days of 2 cruises, *i.e.* (1) One-day sea trial of M.V. SEAFDEC 2 after reconditioning the modern navigation equipment, parts of engines, and fishing accessories, and (2) Two-days sea trial to prepare midwater trawl and automatic squid jigging for operation in Sarawak waters, Malaysia. Twenty-three (23) days of the survey on marine debris in the Gulf of Thailand.

In 2020, TD will coordinate with the Directorate of Fisheries, (D-FISH) and Research Institute of Marine Fisheries (RIMF) of Viet Nam is developing the survey plan of Small Pelagic Fisheries Resources Survey in Marine Waters of Viet Nam in the year 2020.

Regarding M.V. SEAFDEC, the total number of service days in 2019 is thirty-seven (37) days. TD in collaboration with the National Disaster Warning Center (NDWC) conducted a cruise on maintenance of the Tsunami Warning System in the Andaman Sea for sixteen (16) days in January 2019. The cruise of the marine environmental research survey in the Andaman Sea in collaboration with the Phuket Marine Biological Center (PMBC), Thailand was carried out for twenty-one (21) days in November 2019. In 2020, one (1) cruise survey on the maintenance of the Tsunami Warning System in the Andaman Sea is proposed in October 2020, and another one (1) cruise survey on the marine environmental oceanographic survey.

REQUIRED CONSIDERATION BY THE COUNCIL

- To take note of the utilization of the M.V. SEAFDEC 2 in 2019, and to endorse the proposed plan of operation of the M.V. SEAFDEC 2 in 2020; and
- To take note of the utilization of the M.V. SEAFDEC in 2019 and the proposed plans of operations in 2020.

I. INTRODUCTION

The Southeast Asian Fisheries Development Center/Training Department (SEAFDEC/TD) operates two training/research vessels constructed with financial support from the Government of Japan. The vessels of SEAFDEC/TD include 1) M.V. SEAFDEC and 2) M.V. SEAFDEC 2. Over the past decades, SEAFDEC Member Countries (MCs) have confronted with coastal fisheries resource depletion. To mitigate the issue of seafood supply to the people and reduce the fishing pressure of the coastal fisheries resources in their national waters, some SEAFDEC MCs increased their interests to promote the offshore fisheries resources exploitation. This is consistent with the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Regional Towards 2020, as mentioned in the Plan of Action # 18 “*Investigate the potential of under-utilized fisheries resources and promote their exploitation in a precautionary manner based upon analysis of the best available scientific information*”.

To fulfill the needs of SEAFDEC MCs in national, sub-regional, and regional initiatives in the fisheries resources exploration, and monitoring on marine fisheries resource and environment as well as to enhance human resource capacity on fisheries resources exploration, marine environment research survey, fishing technology, navigation, marine engineering and fish handling onboard fishing vessel. SEAFDEC/TD has worked in close collaboration with the SEAFDEC MCs and other national, sub-regional, and regional partners to undertake fisheries resources and marine environment research by using a research survey, as well as to promote responsible fishing and practices through the utilization of both SEAFDEC's training/research vessels. Since SEAFDEC/TD operated both vessels, M.V. SEAFDEC 2 as major research vessel has conducted sixty (61) cruises and M.V. SEAFDEC has conducted one hundred and nine (109) cruises with four (4) major components, *i.e.* (1) Marine fisheries resources research survey; (2) Marine environmental oceanographic research survey; (3) Shipboard training on fishing technology, navigation, and marine engineering; and (4) Sea trial on fishing operation, oceanographic instruments, and deck machineries.

II. UTILIZATION OF THE TRAINING/RESEARCH VESSELS OF SEAFDEC TRAINING DEPARTMENT IN 2019

1. M.V. SEAFDEC

In 2019, M.V. SEAFDEC has successfully conducted two (2) cruises to provide technical support for Thailand. The total number of service days is thirty-seven (37) days.

1) The first cruise was conducted from 10 to 25 January 2019 (16 days) for the maintenance of the Tsunami Warning System in the Andaman Sea. The main objective was to conduct the maintenance and deploy tsunami warning buoy under the management of the National Disaster Warning Center (NDWC) under the Department of Disaster Prevention and Mitigation (DDPM) Thailand, and Raydant International Company. The port of call was Phuket, Thailand.

2) The second cruise was conducted from 31 October to 21 November 2019 (21 days) for the marine environmental research survey in the Andaman Sea in collaboration with the Department of Marine and Coastal Resources (DMCR), Thailand by the Phuket Marine Biological Center. The main activity was the oceanographic survey includes the deployment and maintenance of Ocean buoy, Acoustic Doppler Current Profiler, and sampling bottom sediment.

2. M.V. SEAFDEC 2

In 2019, M.V. SEAFDEC 2 has completely improved and reconditioned of the modern navigation equipment, parts of engine and fishing accessories under support from the Government of Japan through the Japan International Cooperation Agency (JICA). M.V. SEAFDEC 2 completely carried out five (5) cruises with a total number of service days was fifty-six (56) days. Major achievements of the operation were separated into two (2) main categories *i.e.* 1) Marine fisheries resources, marine environment, and oceanographic research survey, and 2) Human resource development on fishing technology, marine fisheries resources, and marine environment research survey for SEAFDEC MCs to summarize the improvement of human resource capacity and enhance the experience of researchers of SEAFDEC MCs. There were Fifty-eight (58) researchers/trainees participated in the training/research cruises of M.V. SEAFDEC 2 in the year 2019. The operation plans of M.V. SEAFDEC 2 and M.V. SEAFDEC for the year 2019 appears as **Table 1**. Details of shipboard activities separated MCs are as follows.

2.1. Malaysia

SEAFDEC/TD in collaboration with the Department of Fisheries Malaysia (DOFM) carried out the sea trial of mid-water trawl by using M.V. SEAFDEC 2 in Sarawak Waters, Malaysia. The shipboard activities were conducted from 5 to 29 September 2019 (25 days) with the objectives to determine the feasibility, acquire knowledge and experience of using midwater trawl, investigate the catch composition of the mid-water trawl, and demonstrate automatic squid jigging machine. Fifteen (15) researchers of DOFM participated in the cruise. Ten (10) mid-water trawl and three (3) fishing operations were successfully conducted during the cruise.

Prior the sea trial cruise to support DOFM, Training Department carried out two (2) sea trial cruises. The first cruise was the navigation and engine system trial after complete improvement and recondition of M.V. SEAFDEC 2. Cruise was conducted on 19 March 2019 (1 day). The second cruise was Sea trial of midwater trawl and automatic squid jigging was conducted from 29 to 31 May 2019 (3 days).

2.2. Thailand

1) SEAFDEC/TD provided the technical support to the Department of Fisheries, Thailand on the shipboard training on the observer onboard training program of the Department of Fisheries, Thailand. Shipboard training was conducted from 26 to 30 June 2019 (5 days). M.V. SEAFDEC 2 used as a training ship to conduct the shipboard training for observer onboard of bottom trawl and pelagic longline fishing operation. Eighteen (18) trainees and two (2) trainers of the Department of Fisheries (DOF) Thailand participated in the training cruise. After the completion, the trainees received the certificates from DOF Thailand, which they could work overseas as observer onboard in Thai fishing vessels operate in high seas and waters of foreign countries.

2) Shipboard Survey on Marine Debris in the Gulf of Thailand (29 November to 21 December 2019; 23 days) SEAFDEC/TD in collaboration with academic institutes *e.g.* Tokyo University of Marine Science and Fisheries, Chulalongkorn University, Department of Coastal Marine and Resources of Thailand conducted training and research survey on marine debris in the Gulf of Thailand with the aiming at 1) developing standard procedure on the marine debris observation and information collection to fulfill need of baseline information on marine debris includes investigate sources of these marine debris, 2) increasing number of experienced researchers on marine debris and related subject *e.g.* mesoplastic and microplastic, 3) strengthening network of oceanography scientist/researcher in Southeast Asia, and 4) maximizing the efficiencies and benefit of the SEAFDEC research vessel, research equipment to support on environment survey of SEAFDEC MCs. The survey area covers the area around Thailand's' Exclusive Economic Zone (EEZ) in the Gulf of Thailand. There were twenty (25) researchers from Thailand (Department of Fisheries, Department of Coastal Marine and Resources, and academic institutes of Thailand) and one (1) expert from Tokyo University of Marine Science and Fisheries participated in this training/survey cruise.

Table 1 Program of Activities of M.V. SEAFDEC 2 and M.V. SEAFDEC for the Year 2019

Vessel's Name	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
M.V. SEAFDEC 2												
<i>Sea trial on the recondition of M.V. SEAFDEC 2</i>												
<i>Sea Trial of Midwater Trawl and Automatic Squid Jigging</i>												
<i>Shipboard Training for Observer Onboard Training Program of the Department of Fisheries Thailand</i>												
<i>Sea Trial of Midwater Trawl by Using M.V. SEAFDEC 2 in Sarawak Waters, Malaysia</i>												
<i>Marine Environmental Research Survey on Marine Debris in the Gulf of Thailand</i>												
M.V. SEAFDEC												
<i>Tsunami warning system maintenance in the Andaman Sea NDWC/DDPM</i>												
<i>Research survey in the Andaman Sea by PMBC</i>												

III. OPERATIONS OF THE TRAINING/RESEARCH VESSELS OF SEAFDEC TRAINING DEPARTMENT IN 2020

1) M.V. SEAFDEC

In 2020, SEAFDEC/TD in collaboration with the NDWC and DDPM, Thailand, plans to carry out one (1) cruise on the maintenance of the Tsunami Warning System in the Andaman Sea. The expected working days at sea of shipboard operation will be 14 days in October 2020. In addition, SEAFDEC/TD is coordinating with the Department of Marine and Coastal Resources (DMCR) to develop a cruise survey on the marine environmental research survey in the Andaman Sea, back to back with the cruise of maintenance of the Tsunami Warning System in the Andaman Sea. The main cruise objective is to conduct a marine environmental research survey in the Andaman Sea. The expected working days at sea of the cruise survey will be 70 days from October to December 2020.

2) M.V. SEAFDEC 2

SEAFDEC received the message from the Directorate of Fisheries, (D-FISH) of Viet Nam on the proposal to utilize M.V. SEAFDEC 2 for marine resource survey in Vietnamese' s marine waters from May to August 2020. SEAFDEC/TD will coordinate with the *Directorate of Fisheries, (D-FISH)* and Research Institute of Marine Fisheries (RIMF) of Viet Nam for the development of the survey plan.

Table 2 Expected Program of Activities of M.V. SEAFDEC 2 and M.V. SEAFDEC for the Year 2020

Vessel's Name	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
M.V. SEAFDEC 2												
<i>National Research Survey in Viet Nam Waters</i>												
M.V. SEAFDEC												
<i>Tsunami warning system maintenance in the Andaman Sea NDWC/DDPM</i>												
<i>Research survey in the Andaman Sea by PMBC</i>												

IV. National Interest of Fisheries Resource Research Survey during 2020-2023

During the fourth quarter of 2019 SEAFDEC/TD has updated the interests of SEAFDEC MCs to utilize M.V. SEAFDEC 2 for their national fisheries research resource survey. The result of the consultation reveals that SEAFDEC MCs have acquired support from SEAFDEC on the fisheries resource survey focusing on the pelagic (tunas and small pelagic) and demersal fisheries resources, deep-sea resource. The oceanographic survey which includes physical, and chemical, and biological (fish larvae, zooplankton) are identified as a priority need of SEAFDEC MCs. Also, MCs requested SEAFDEC to conduct human resource development and capacity building program on a relevant research topic as fisheries resources survey includes stock assessment, fish larvae and zooplankton identification, and marine mammals sighting/searching /observation. The result of the consultation visit was shown in **Table 3**:

Table 3 Result of the Consultation Visit National Interest of Fisheries Resource Research Survey during 2020-2023

Member Countries	National plan on the fisheries/oceanography research survey during year 2020-2023	Suggestion of MCs
Brunei Darussalam	Department of Fisheries Brunei Darussalam is newly developing the national survey plan in 2020-2030. The research topics are included; 1) Midwater trawl trial and demonstration to be carried out in Zones 3 and 4, 2) Hydro-acoustic survey for pelagic resources assessment, 3) Oceanographic survey, 4) Sea bottom survey, HRD, and research on the marine mammals sighting/searching /observation through the hydro-acoustic equipment.	Department of Fisheries Brunei Darussalam may request the utilization of M.V. SEAFDEC 2 after 2020
Cambodia	Cambodia has not yet developed the fisheries resources survey plan. Cambodia needs technical support to develop human resources on some topics, <i>e.g.</i> the neritic tuna genetic study, stock assessment, etc.	
Indonesia	Indonesia by <i>Research Institute of Marine Fisheries of Indonesia (RIMF)</i> will undertake the five-year plan of the marine fisheries and environment research survey around Indonesia waters by using the new fisheries research vessel R.V. <i>Bawal Putih III</i> .	
Malaysia	Under the five-year (2021-2025) plan of the Department of Fisheries Malaysia (DOFM), there is high feasibility to conduct fisheries resources research survey in 2021. The field of interests are 1) Ichthyoplankton survey, 2) Demersal and pelagic fisheries resources survey by	Suggestions of DOFM 1. Old technology (FQ80) equipment should be replaced with new one (<i>i.e.</i>

	trawling and hydroacoustic equipment, and 3) Tuna Fisheries Resources Survey.	SIMRAD EK-60 or EK-80 2. Multi water sampler 3. Larva net with mesh size 1 mm
Myanmar	Department of Fisheries with supported by the Food and Agriculture Organization (FAO), plans to conduct the Collaborative Fishery Resources and Ecosystem Surveys by R.V. Dr. Fridtjof Nansen in Myanmar waters in 2021. Due to a limited budget, the Department of Fisheries, Myanmar requests SEAFDEC to consider supporting the survey in coastal waters where R.V. Dr. Fridtjof Nansen could not conduct because of shallow areas.	M.V. SEAFDEC 2 Dr. Fridtjof Nansen suggested should improve the same equipment with the Research vessel.
Philippines	Bureau of Fisheries and Aquatic Resources (BFAR) and the National Fisheries Research and Development Institute (NFRDI) may initialize the 3-year plan in 2021. The survey activities would include: 1) Hydro-acoustic survey for pelagic stock/resources assessment in the coastal waters of the Philippines <i>e.g.</i> round-scad and sardine resources stock assessment, 2) Oceanographic survey (which includes physical, biological and chemical, data analysis/interpretation), 3) Fishing gear technology improvement (<i>e.g.</i> eco-friendly aspects, new fishing gear for new fishing ground exploration); and 4) Human resource development/Capacity building on fish larvae identification, zooplankton identification; and Exploration and Survey underexploited area (The Philippine Rise)	M.V. SEAFDEC 2 should upgrade onboard equipment/software and hardware
Thailand	Department of Fisheries, Thailand will conduct the fisheries resources survey by using research vessels FR/V Chulabhorn and FR/V Mahidol for the national research survey. DOF, Thailand may request to utilize M.V. SEAFDEC 2 in case of coastal research vessels are all under maintenance.	DOF, Thailand requests SEAFDEC/TD to technical support on the midwater trawl net design.
Viet Nam	Directorate of Fisheries, (DFISH) and Research Institute of Marine Fisheries (RIMF) of Viet Nam is developing the survey plan of the Small Pelagic Fisheries Resources Survey in marine waters of Viet Nam in the year 2020. The survey has been postponed from the year 2019 due to a lack of funding. Viet Nam was interested to survey on the large pelagic fisheries resources <i>e.g.</i> tunas, demersal fisheries resources, and focus on deep-sea fisheries resources.	1. New scientific echo sounder, <i>i.e.</i> SIMRAD EK60 or EK80 with multi-frequency, <i>i.e.</i> 18, 38, 120, 200, 368, 600 kHz. SEAFDEC should improve Lan system onboard M.V. SEAFDEC 2 for better arrangement of scientific echo sounder system. 2. Midwater trawl net with net monitoring system <i>e.g.</i> Scanmar Sensors 3. Deep-sea fishing gears <i>e.g.</i> trawl net and trawl monitoring system, other fishing gears

COLLABORATIVE ARRANGEMENTS BETWEEN SEAFDEC AND OTHER ORGANIZATIONS

I. SIGNING OF COLLABORATIVE ARRANGEMENTS

During the period after the 51st Council Meeting until the 52nd Council Meeting, SEAFDEC established collaborative arrangements with other organizations as follows:

1.1 International/regional organizations, non-member governments and donors

- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Secretariat**

On 27 September 2019, SEAFDEC signed an “Amendment No. 1 to the Small-Scale Funding Agreement (SSFA) between SEAFDEC and CITES Secretariat” to extend the original SSFA with CITES-Secretariat to co-operate with respect to “support for the implementation of CITES provisions for sharks and rays through targeted support for data collection and training in the making of Non-Detriment Findings (NDF),” which was originally signed in March 2018 where the CITES Secretariat agreed to provide the total budget of USD 90,000 to SEAFDEC to implement activities under the SSFA. The original SSFA covered the period until 30 September 2019. However, as there are some activities that have yet been completed under the original Agreement, the amendment was made to the SSFA to extend its expiry date until 15 December 2019 with no additional budget.

- **Food and Agriculture Organization of the United Nations (FAO)**

On 28 March 2019, SEAFDEC/AQD signed an “Amendment to Letter of Agreement Between FAO and SEAFDEC/AQD” to extend the “LOA for Digitisation, Open Access Deposition and the Provision of URL’s to Existing ASFA Records of the Conference Proceedings Published by SEAFDEC Secretariat, Training Department (TD), Marine Fisheries Research Department (MFRD), Marine Fishery Resources Development and Management Department (MFRDMD), and Aquaculture Department (AQD)” which was originally signed on 7 September 2018 where FAO agreed to provide funding support of USD 18,466.00 to AQD for this project. The original Agreement covered the period until 31 July 2019. The amendment was made to this Agreement which incorporates a change of expiration date to 30 November 2019, with no additional activities/outputs or change in the budget.

In February 2020, SEAFDEC also signed a “Letter of Agreement (LOA) between FAO and SEAFDEC for Provision of Gender Dimension in the Value Chain of Small-scale Fisheries and Aquaculture in Southeast Asia”. Under this LOA, FAO will provide fund amounting 98,000 USD to SEAFDEC Training Department (TD) to implement the Project entitled “Gender Dimension in the Value Chain of Small-scale Fisheries and Aquaculture in Southeast Asia,” which was proposed as a Pipeline Project and approved by the 42nd Meeting of the SEAFDEC Program Committee in November 2019. The Project is aimed at enhancing the capacity of SEAFDEC Member Countries’ staff involved in fisheries management and development programs and projects to enable them to integrate gender aspects in the program/project cycle; and the duration of this LOA is from 1 January 2020 to 30 June 2021.

- **Japan-ASEAN Integration Fund (JAIF)**

In February 2020, SEAFDEC and the Japan-ASEAN Integration Fund (JAIF) signed Disbursement Letter for “Development of Stock Assessment Methods and Strengthening of Resources Management Measures for Tropical Anguillid Eel in Southeast Asia”. The total funding from JAIF for this project is USD 790,123.40 for the period of two years from 2020 to 2021. This project is considered a continuation of the first phase project entitled “Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia” also funded by JAIF from August 2017 to July 2019 which focused on development of eel fishery statistics and data collection system, examining the status of tropical anguillid eel species in AMS, and improving eel aquaculture activities. The overall objectives of the new

JAIF project are: to collect the catch data and biological/ecological information for the estimation of eel resources stocks, and to develop mathematical/statistical methods for estimating tropical anguillid eel resources stocks in order to formulate effective management measures for the sustainable use of tropical anguillid eels in Southeast Asia.

- **United States Department of Interior (US-DOI)**

On 5 February 2020, SEAFDEC signed a revised “Annex 2 to the Memorandum of Understanding between the United States Department of Interior (US-DOI) and SEAFDEC Concerning Implementing the Lower Mekong Fish Passage Initiative in Cambodia, Thailand, and Vietnam”. The original Annex 2 was signed in July 2018 with the aim to build the capacity within SEAFDEC and Lower Mekong nations to construct and maintain low head fish passes to restore fisheries connectivity at irrigation facilities, weirs, and road prisms. The Annex originally started from the date of signing until 30 September 2019 with the total budget of USD 466,000. However, as there are some activities that have yet been completed, the Annex was revised to extend its term until 30 September 2020 with additional budget of USD 22,500.

- **Charles Sturt University, Australia**

In April 2020, SEAFDEC/IFRDMD entered into the Letter of Agreement with Charles Sturt University (CSU), Australia for provision of sub-contract services in the implementation of research project “Modernizing irrigated agriculture to protect and restore aquatic biodiversity and ecosystem services in South-East Asia” funded by the Australian Water Partnership (AWP). The Project has objective to improve agricultural water management and irrigation practices in the Southeast Asian region to protect and restore fisheries production, aquatic biodiversity and ecosystem services. Under this LOA, Charles Sturt University will pay the fee of AUD 45,040 (GST exclusive) to IFRDMD to provide subcontract services and carry out part of the project tasks. The duration of this Project is tentatively until October 2021.

1.2 Agencies within the Member Countries

- **Nagano University, Japan**

On 19 July 2019, SEAFDEC signed the “Memorandum of Understanding (MOU) for Scientific and Educational Cooperation Between Nagano University and SEAFDEC”. The objectives of the MOU are to: 1) Develop scientific and technical cooperation on inland fisheries and freshwater ecology that are of interest to the two organizations through mutual understanding and interrelationship; 2) Develop academic and educational cooperation on inland fisheries and freshwater ecology that are of interest to the two organizations through mutual understanding and interrelationship; and 3) Conduct detailed discussions between Nagano University and SEAFDEC if required, in cases of relevant practical matters that may arise. The MOU is effective for the period of five years.

- **Faculty of Fisheries, Kagoshima University, Japan**

On 26 August 2019, SEAFDEC signed an “Extension of Arrangement for Academic and Educational Cooperation between SEAFDEC and Faculty of Fisheries, Kagoshima University” with a view to promote cooperation and collaboration toward the sustainable development of fisheries in the Southeast Asian region. The Arrangement of Cooperation between SEAFDEC and the Faculty of Fisheries, Kagoshima University, Japan was first established in 2003, and extended in 2008 and 2014, respectively, and was expired in May 2019. Under this new Extension of Arrangement, the two institutions will encourage direct contact and cooperation between their staff members, departments/research sections in the following forms of cooperation: 1) Collaboration of faculty and staff members for research, symposia and other academic pursuits; 2) Exchange of staff members and students for education, training and research; and 3) Exchange of data, documentation and research materials in the field of mutual interests. The Extension of Arrangement is effective from the date of signing for the duration of five years.

- **Tokyo University of Marine Science and Technology (TUMSAT), Japan**

On 23 March 2020 SEAFDEC signed an “Extension of Arrangement for Academic and Educational Cooperation between SEAFDEC and Tokyo University of Marine Science and Technology (TUMSAT)” with the aim to sustain development of fisheries in the Southeast Asian region. The Arrangement of Cooperation between SEAFDEC and TUMSAT was first established in 2004, and extended in 2010 and 2015, respectively; and came into expiry on 31 March 2020. This Extension of Arrangement is an integral part of the original Arrangement where SEAFDEC and TUMSAT endeavor to encourage direct contact and cooperation between their staff members, departments/research sections in the following forms of cooperation: 1) Collaboration of faculty and staff members for research, symposia and other academic pursuits; 2) Exchange of staff members and students for education, training and research; and 3) Exchange of data, documentation and research materials in the field of mutual interests. The Extension of Arrangement is effective starting from 1 April 2020 for the duration of five years.

- **Graduate School of Agricultural and Life Sciences, and Faculty of Agriculture, the University of Tokyo (GSALS-UT), Japan**

On 30 March 2020, SEAFDEC signed an “Extension of Arrangement for Academic and Educational Cooperation between SEAFDEC and Graduate School of Agricultural and Life Sciences, and Faculty of Agriculture, the University of Tokyo (GSALS-UT)”. The Arrangement of Cooperation between SEAFDEC and GSALS-UT was first established in 2004, and extended in 2010 and 2015, respectively; and would soon come into expiry on 14 July 2020. This Extension of Arrangement is an integral part of the original Arrangement with objectives to: 1) Encourage direct communication and cooperation between their respective research staff; and 2) Promote cooperation in areas of common concerns that are mutually agreed upon, e.g. exchange of information, joint research and training activities, visits by and exchange of researchers and students, visits by and exchange of staff, and participation by researchers and students in conferences and meetings on matters of mutual interest. The Extension of Arrangement will be effective starting from 15 July 2020 for the duration of five years.

- **National Fisheries Research and Development Institute (NFRDI) and Bureau of Fisheries and Aquatic Resources (BFAR), Philippines**

On 14 June 2019, SEAFDEC/AQD signed a Memorandum of Agreement with the National Fisheries Research and Development Institute (NFRDI) and Bureau of Fisheries and Aquatic Resources (BFAR) of the Philippines to collaborate in the implementation of “Aquafeed Research, Development and Extension Project (ARDEP)” with a view to develop low-cost quality aquaculture feeds for the priority species in the Philippines. The Parties agreed to: 1) Jointly undertake the research, development and extension in the ARDEP activities; 2) Cooperate in research, development and extension including training, technical assistance and use of facilities; and 3) Exchange and sharing of research materials, publications and other scientific information. Specifically, AQD will: 1) act as Cooperating Agency and member of the Technical Working Group (TWG) in the implementation of the project; 2) Submit a Project Proposal on aquafeed research, development and extension for approval of NFRDI, and conduct and implement the study in accordance with the approved Project Proposal. The duration of this project is until June 2021.

II. REQUIRED CONSIDERATION BY THE COUNCIL

The Council is requested to take note of the establishment of collaborative arrangements between SEAFDEC and other organizations.

PROCEDURES FOR ESTABLISHMENT OF COOPERATION BETWEEN SEAFDEC AND OTHER ORGANIZATIONS

I. BACKGROUND

Since its establishment, SEAFDEC has created close cooperation with several organizations and non-member governments having a mutual interest to support and jointly carry out activities that are beneficial to the SEAFDEC Member Countries. This is in line with the Agreement Establishing SEAFDEC, of which the Article 12 on “Co-operation with Other Organizations” states that “*In order to fulfill its purpose, the Center may co-operate with governments and organizations external to the Center as well as other international organizations and, for this purpose, may conclude agreements or arrangements with those organizations.*” The Article 13 on “Assistance from Other Organizations” also states that “*The Center may, by a two-thirds majority vote of the total number of the Directors of the Council, receive assistance from governments and organizations external to the Center as well as other international organizations, provided that no condition contrary to the purpose of the Center is attached to such assistance.*”

This document is therefore developed to serve as a guide on procedures for the SEAFDEC Secretariat and Departments in establishing cooperation with other organizations in the future.

II. FEATURES OF COOPERATION

In consistent with the feature of cooperation agreed by the SEAFDEC Council in the past, the proposed cooperation between SEAFDEC and other organizations should have the following features:

- 1) The mandate and functions of both organizations should be taken into consideration in the cooperation;
- 2) The objectives of the proposed cooperation should complement and not duplicate with the existing works of SEAFDEC;
- 3) The cooperation shall be participatory in nature, with joint sharing of responsibilities and costs;
- 4) The expected output of the proposed cooperation should contribute to the effort of SEAFDEC in achieving its goals;
- 5) The program of activities of the cooperation should be within the priority areas of SEAFDEC’s plans and programs; and
- 6) The implementation of the activities under the cooperation should recognize the political, socio-cultural, and institutional considerations of the parties concerned and also of the countries hosting such parties.

In addition, arrangements for cooperation between SEAFDEC and other organizations should be specific in nature and should clearly indicate the expiry date of the arrangements, regardless of the financial implication.

III. SEEKING APPROVAL OF THE COUNCIL

In establishing cooperation with other organizations and receiving assistance from other organizations, under Article 6 of the Agreement Establishing SEAFDEC, Paragraph 2 stated that “*The Council may delegate to the Secretary-General any or all of its powers, except the powers (vii) to approve agreements or arrangements referred in Article 12 of this Agreement, and (viii) to decide to receive assistance referred in Article 13 of this Agreement.*” SEAFDEC Council’s approval is therefore required prior to signing of any agreement or arrangement by SEAFDEC Secretariat and Departments with other organizations.

Nevertheless, the Administrative Regulation 3 Paragraph 3.2 (iv) also stated that “*pursuant to Article 9, paragraph 2, and Article 12 of the Agreement and subject to any instructions given by the Council, the Secretary-General has the power and functions to conclude or authorize the respective Department Chief to conclude agreements and arrangements of cooperation in consultation with the Department Chief and the host country concerned.*” Therefore, for arrangements with the government agencies of Member

Countries responsible for the SEAFDEC Secretariat and Departments (host countries), this require the Secretary-General's approval only.

Taking into the Agreement Establishing SEAFDEC and relevant Administrative Regulations, the required approval for establishing cooperation between SEAFDEC and several types of organizations is as follows:

Types of Organizations		Approval by
SEAFDEC Member Countries	Government agencies of host country	Secretary-General
	Government agencies of non-host country	SEAFDEC Council
	Non-government agencies*	SEAFDEC Council
Non SEAFDEC Member Countries	Government agencies	SEAFDEC Council
	Non-government agencies*	SEAFDEC Council
International/regional organizations and donor agencies		SEAFDEC Council

* Non-government agencies include academes, private sectors, NGOs, etc.

Nonetheless, for the existing arrangements between SEAFDEC and other organizations, extension of such arrangements may not require prior approval of the Council provided that there is no change in the circumstances and the nature of cooperation.

IV. PROCEDURES FOR SEEKING APPROVAL OF THE COUNCIL

For establishment of cooperation that requires prior approval of the SEAFDEC Council, the procedures in seeking approval of the Council shall be as follows:

1) SEAFDEC Secretariat and Departments that wish to enter into arrangements for cooperation and for receiving of assistance from governments or organizations external to the Center as well as other international organizations shall communicate to seek approval from the SEAFDEC Council through the Secretary-General, either at the annual SEAFDEC Council meetings, or *ad referendum*.

In seeking *ad referendum* approval of the Council:

a. The Department Chief requesting for establishing cooperation arrangement shall send an official letter to the Secretary-General with clear statement on the scope and justification for such arrangement.

b. The Secretary-General shall send an official letter to all SEAFDEC Council Directors (with an e-copy to National Coordinators) with clear statement on the scope and justification for such arrangement; and the Council Directors would be requested to provide a response to the SEAFDEC Secretariat by 21 days after the transmittal of the letter.

c. The Council Director of the respective countries shall inform the SEAFDEC Secretariat of the decision through an official letter or e-mail by the designated date. For the Council Directors who do not provide a response to the Secretariat by the designated date, the Secretariat shall consider that such Council Directors have no objection to the request.

d. The SEAFDEC Secretariat shall keep a record of the decisions made by the Council Directors. The final decision shall be made as following:

- o For Cooperation with Other Organizations (Article 12): by majority vote of the total number of the Council Directors;
- o For Assistance from Other Organizations (Article 13): by two-thirds majority vote of the total number of the Council Directors;

e. The SEAFDEC Secretariat shall inform to the requesting Department of the final decision of the Council whether or not the request is approved;

- 2) Upon approval of the Council, the arrangement shall be signed. On the SEAFDEC side, the signatory shall be the SEAFDEC Secretary-General on behalf of the SEAFDEC, or the Department Chief on behalf of their respective Department.
- 3) Once the arrangement is signed between the requesting Department and other organization (including the arrangements with the government agencies of host countries that require the Secretary-General's approval only), the Department shall send a copy of signed arrangement to the SEAFDEC Secretariat; and the Secretariat shall further send the copy of the signed arrangement to all Council Directors.
- 4) The signing of all arrangements between SEAFDEC and other organizations throughout the annual working cycle shall be reported to the SEAFDEC Council at its annual meetings.

V. REQUIRED CONSIDERATION BY THE COUNCIL

- To consider and provide comment(s) on the proposed procedures for establishment of cooperation between SEAFDEC and other organizations, and approve the procedures as is or as amended.

PROCEDURES FOR ESTABLISHMENT OF COOPERATION BETWEEN SEAFDEC AND OTHER ORGANIZATIONS

(Adopted by 52nd Meeting of SEAFDEC Council)

I. BACKGROUND

Since its establishment, SEAFDEC has created close cooperation with several organizations and non-member governments having a mutual interest to support and jointly carry out activities that are beneficial to the SEAFDEC Member Countries. This is in line with the Agreement Establishing SEAFDEC, of which the Article 12 on “Co-operation with Other Organizations” states that “*In order to fulfill its purpose, the Center may co-operate with governments and organizations external to the Center as well as other international organizations and, for this purpose, may conclude agreements or arrangements with those organizations.*” The Article 13 on “Assistance from Other Organizations” also states that “*The Center may, by a two-thirds majority vote of the total number of the Directors of the Council, receive assistance from governments and organizations external to the Center as well as other international organizations, provided that no condition contrary to the purpose of the Center is attached to such assistance.*”

This document is therefore developed to serve as a guide on procedures for the SEAFDEC Secretariat and Departments in establishing cooperation with other organizations in the future.

II. FEATURES OF COOPERATION

In consistent with the feature of cooperation agreed by the SEAFDEC Council in the past, the proposed cooperation between SEAFDEC and other organizations should have the following features:

- 1) The mandate and functions of both organizations should be taken into consideration in the cooperation;
- 2) The objectives of the proposed cooperation should complement and not duplicate with the existing works of SEAFDEC;
- 3) The cooperation shall be participatory in nature, with joint sharing of responsibilities and costs;
- 4) The expected output of the proposed cooperation should contribute to the effort of SEAFDEC in achieving its goals;
- 5) The program of activities of the cooperation should be within the priority areas of SEAFDEC’s plans and programs; and
- 6) The implementation of the activities under the cooperation should recognize the political, socio-cultural, and institutional considerations of the parties concerned and also of the countries hosting such parties.

In addition, arrangements for cooperation between SEAFDEC and other organizations should be specific in nature and should clearly indicate the expiry date of the arrangements, regardless of the financial implication.

III. SEEKING APPROVAL OF THE COUNCIL

In establishing cooperation with other organizations and receiving assistance from other organizations, under Article 6 of the Agreement Establishing SEAFDEC, Paragraph 2 stated that “*The Council may delegate to the Secretary-General any or all of its powers, except the powers (vii) to approve agreements or arrangements referred in Article 12 of this Agreement, and (viii) to decide to receive assistance referred in Article 13 of this Agreement.*” SEAFDEC Council’s approval is therefore required prior to signing of any agreement or arrangement by SEAFDEC Secretariat and Departments with other organizations.

Nevertheless, the Administrative Regulation 3 Paragraph 3.2 (iv) also stated that “*pursuant to Article 9, paragraph 2, and Article 12 of the Agreement and subject to any instructions given by the Council, the Secretary-General has the power and functions to conclude or authorize the respective Department Chief to conclude agreements and arrangements of cooperation in consultation with the Department Chief and*

the host country concerned.” Therefore, for arrangements with the government agencies of Member Countries responsible for the SEAFDEC Secretariat and Departments (host countries), this require the Secretary-General’s approval only.

Taking into the Agreement Establishing SEAFDEC and relevant Administrative Regulations, the required approval for establishing cooperation between SEAFDEC and several types of organizations is as follows:

Types of Organizations		Approval by
SEAFDEC Member Countries	Government agencies of host country	Secretary-General
	Government agencies of non-host country	SEAFDEC Council
	Non-government agencies*	SEAFDEC Council
Non SEAFDEC Member Countries	Government agencies	SEAFDEC Council
	Non-government agencies*	SEAFDEC Council
International/regional organizations and donor agencies		SEAFDEC Council

* Non-government agencies include academes, private sectors, NGOs, etc.

Remarks: For extension and renewal of arrangements, the list of arrangements that will be extended and renewed in the coming years without any change in the activities or nature of the arrangements, would be compiled by the SEAFDEC Secretariat for approval of the Council which would be sought at its forthcoming annual meetings. Nevertheless, as the new text for some of the arrangements might not yet be available during its annual meetings, the SEAFDEC Secretariat would provide a copy of the current arrangements for information of the Council; and once these arrangements are signed, the SEAFDEC Secretariat will send a copy of the signed arrangements to the Council Directors for information.

IV. PROCEDURES FOR SEEKING APPROVAL OF THE COUNCIL

For establishment of cooperation that requires prior approval of the SEAFDEC Council, the procedures in seeking approval of the Council shall be as follows:

1) SEAFDEC Secretariat and Departments that wish to enter into arrangements for cooperation and for receiving of assistance from governments or organizations external to the Center as well as other international organizations shall communicate to seek approval from the SEAFDEC Council through the Secretary-General, either at the annual SEAFDEC Council meetings, or *ad referendum*.

In seeking *ad referendum* approval of the Council:

a. The Department Chief requesting for establishing cooperation arrangement shall send an official letter to the Secretary-General with clear statement on the scope and justification for such arrangement.

b. The Secretary-General shall send an official letter to all SEAFDEC Council Directors (with an e-copy to National Coordinators) with clear statement on the scope and justification for such arrangement; and the Council Directors would be requested to provide a response to the SEAFDEC Secretariat by 21 days after the transmittal of the letter.

c. The Council Director of the respective countries shall inform the SEAFDEC Secretariat of the decision through an official letter or e-mail by the designated date. For the Council Directors who do not provide a response to the Secretariat by the designated date, the Secretariat shall consider that such Council Directors have no objection to the request.

d. The SEAFDEC Secretariat shall keep a record of the decisions made by the Council Directors. The final decision shall be made as following:

- For Cooperation with Other Organizations (Article 12): by majority vote of the total number of the Council Directors;
- For Assistance from Other Organizations (Article 13): by two-thirds majority vote of the total number of the Council Directors;

- e. The SEAFDEC Secretariat shall inform to the requesting Department of the final decision of the Council whether or not the request is approved;
- 2) Upon approval of the Council, the arrangement shall be signed. On the SEAFDEC side, the signatory shall be the SEAFDEC Secretary-General on behalf of the SEAFDEC, or the Department Chief on behalf of their respective Department.
- 3) Once the arrangement is signed between the requesting Department and other organization (including the arrangements with the government agencies of host countries that require the Secretary-General's approval only), the Department shall send a copy of signed arrangement to the SEAFDEC Secretariat; and the Secretariat shall further send the copy of the signed arrangement to all Council Directors.
- 4) The signing of all arrangements between SEAFDEC and other organizations throughout the annual working cycle shall be reported to the SEAFDEC Council at its annual meetings.

V. REQUIRED CONSIDERATION BY THE COUNCIL

- To consider and provide comment(s) on the proposed procedures for establishment of cooperation between SEAFDEC and other organizations, and approve the procedures as is or as amended.

PROGRESS IN THE IMPLEMENTATION OF THE SEAFDEC GENDER STRATEGY IN 2019

EXECUTIVE SUMMARY

The SEAFDEC Gender Strategy was approved by the 51st Meeting of the SEAFDEC Council in 2019 for implementation by the SEAFDEC Secretariat and Departments with the goal for “SEAFDEC as gender-responsive and gender-sensitive in pursuing sustainable development and management of fisheries and aquaculture in Southeast Asia.” The Progress in the implementation of the Gender Strategy by SEAFDEC during the year 2019 could be summarized as follows:

Strategy 1. Mainstreaming gender at all levels of the organization

- Policies and regulations for the staff: generally applied equally to male and female, with some specific gender-related policy, *e.g.* maternity/paternity leave, special leave benefits for women
- Gender-related facilities: provided as and when necessary, *e.g.* breastfeeding areas, child care facilities, muslim prayer room for men/women.
- Number of staff in HR system: a total of 381 staff (169 female and 212 males)
- Attendant of staff in gender-related training: 4 staff (3 females; 1 males) attended

Strategy 2. Integrating gender in SEAFDEC programs and projects

- Gender sensitive
- 1 programs/projects: 5 regional projects (out of 23) are gender sensitive
- Stakeholders and participants involved in programs/projects of SEAFDEC: 4,730 stakeholders/participants (1,410 females and 3,320 males) involved
- Gender-related events organized by SEAFDEC: 4 events, with a total of 166 participants (119 females and 47 males) attended
- Project proposal developed to seek funding support from other organization: 1 proposal develop with budget of 98,000 US\$ requested

Strategy 3. Incorporating gender perspectives in all events organized by SEAFDEC

- Sex disaggregated number of participants in events organized by SEAFDEC:
 - Regional/ international meetings, seminars, workshops: 32 events, with 1,169 participants (371 female and 696 male)
 - SEAFDEC national/local meetings, seminars, workshops, consultations, etc.: 19 events, with 414 participants (87 female and 252 male)
 - International/ regional training courses: 23 events, with 220 participants (42 female and 155 male)
 - National, on-site training courses: 38 events, with 775 participants (141 female and 331 male)
 - Study tours: 5 events, with 73 participants (4 female and 13 male)
 - Internships (group/persons): 1 event, with 5 participants (2 female and 3 male)
 - On-the-job trainings (students): 5 events, with 224 participants (138 female and 106 male)
 - SEAFDEC Internal Events: 17 events, with 2,305 participants (280 female and 368 male)

Strategy 4. Boosting the visibility of SEAFDEC as a gender-responsive and gender-sensitive organization

- Presentation on gender-related subject at events organized by other organizations: 5 oral presentations
- Articles/papers/reports published and distributed: 8 titles, with 2,070 hard-copies produced, 1,350 hard-copies distributed, and 440 e-copy downloaded.

¹ Gender sensitive refers to the programs and projects where gender norms, roles and inequalities have been considered and awareness of these issues has been raised.

- Strategy 5. Strengthening further the cooperation and collaboration with Member Countries and other organizations on gender aspects
- Collaboration with 3 organizations/countries by serving as resource persons at the events

REQUIRED CONSIDERATION BY THE COUNCIL

- To take note on the progress in the implementation of the SEAFDEC Gender Strategy in 2019 and to provide further directive for monitoring of SEAFDEC Gender Strategy in the future.

I. BACKGROUND

Throughout the past decades, the importance of gender equality and equity has been well recognized by a number of international instruments and policy frameworks, such as the UN Sustainable Development Goals (SDG) and the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication. Specifically for the ASEAN region, guided by 1988 Declaration on the Advancement of Women in ASEAN, the ASEAN Sub-Committee on Women (ASW) was established in 1975, and was subsequently elevated to ASEAN Committee on Women (ACW) in 2001. This ACW carries out the coordination and monitoring of the ASEAN's key regional priorities and cooperation on women's issues and concerns asserting women's empowerment.

As for the region's fisheries sector, the "Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020" which was adopted during the ASEAN-SEAFDEC Conference in 2011 asserts the required actions to "*Strengthen human capacity of relevant stakeholders through mobilization of resources and the harmonization of initiatives that support fisheries communities and governments, with a special focus on the women and youth.*" Along this line, the Resolution on the Future of SEAFDEC Toward 2030, adopted during the Special Meeting of the SEAFDEC Council in November 2017, also specifies a Strategy toward "*Addressing cross-cutting issues, such as labor, gender and climate change, where related to international fisheries.*" Member Countries' respective governments and SEAFDEC therefore hold the responsibility to ensure the implementation of commitments agreed in the aforementioned global and regional frameworks, while pursuing the sustainable development and management of fisheries and aquaculture.

To support the integration of gender perspectives in fisheries within SEAFDEC and its Member Countries, SEAFDEC proposed during the 50th Meeting of the SEAFDEC Council in March 2018, in Siem Reap, Cambodia to develop a "SEAFDEC Gender Strategy"; and the Strategy was subsequently endorsed by the 51st Meeting of the SEAFDEC Council in 2019. It is envisaged that the SEAFDEC Gender Strategy would provide an overarching framework to facilitate SEAFDEC's efforts toward integrating gender in its future programs and projects, which would eventually support the integrating gender perspectives in fisheries in the respective countries.

In response to the Council's approval on the SEAFDEC Gender Strategy, SEAFDEC therefore conducted follow-up actions to monitor the implementation of the Strategy by the SEAFDEC Secretariat and Departments in 2019 for reporting to the 52nd Meeting of SEAFDEC Council in 2020.

II. PROGRESS IN THE IMPLEMENTATION OF SEAFDEC GENDER STRATEGY IN 2019

Strategy 1: Mainstreaming Gender at all Levels of the Organization

- Gender-related policies/regulations for staff

Policies and regulations for the staff of SEAFDEC generally applied equally to male and female staff. Nevertheless, there are some gender specific policies and regulation, such as granting of maternity and paternity leave, and special leave benefits for women. The list of gender-related policies/regulations for SEAFDEC staff appears as *Appendix 1*.

- Gender equitable facilities provided for staff

Facilities for specific needs were made available for staff as and when necessary, such as breastfeeding room/corner, children nursing areas, Muslim prayer room for women and men. The list of gender equitable facilities of SEAFDEC Secretariat and Department appears as *Appendix 2*.

- Number of female and male staff in HR system

During the year 2019, SEAFDEC Secretariat and Departments have the number of officers that are categorized as senior and non-senior as follows:

Department	Total	Senior Officer		Non-senior Officer	
		Female	Male	Female	Male
Secretariat	32	2	3	16	11
TD	115	5	14	32	64
AQD	158	21	19	62	56
MFRD	1	0	1	0	0
MFRDMD	46	5	6	12	23
IFRDMA	29	2	5	12	10

Remarks: Senior Officer is section head level and above

- Gender-related trainings conducted by SEAFDEC for staff and number of staff attended

None

- Number of staff attended in gender-related trainings organized by other organizations

SEAFDEC attendant to gender-related trainings organized by other organizations are as follows:

Titles of non-SEAFDEC gender-related trainings	Number of staff attended		Department
	Female	Male	
Seminar Workshop on Gender Awareness and Development	0	1	AQD
Training / Workshop on Gender Concepts, Analysis and Tools in Sustainable Fisheries Management, October 1 - 3, 2019, Universiti Malaysia Terengganu, Malaysia	3	0	MFRDMD

Strategy 2: Integrating Gender in SEAFDEC Programs and Projects

- List of gender-sensitive programs/projects

In 2019, there are programs/projects of SEAFDEC that are considered as gender-sensitive project as follows:

Titles of gender-sensitive programs/projects	Department
Fisheries and Habitat Management, Climate Change and Social Well-being in Southeast Asia	Sec
Human Resource Development for Sustainable Fisheries	TD
Promotion of Sustainable Fisheries Resources Enhancement Measures in Critical Habitats/Fishing Grounds in Southeast Asia	TD
Enhancing the Compilation and Utilization of Fishery Statistics and Information for Sustainable Development and Management of Fisheries in Southeast Asian Region: <i>Facilitating Fisheries Activity Information Gathering through Introduction of Community-based Resources Management/ Co-management</i>	TD
The Oceans and Fisheries Partnership	TD & Oceans

- Number of female and male stakeholders and participants involved in program/project activities

In 2019, SEAFDEC Secretariat and Department implemented 23 projects under the FCG/ASSP Mechanism, 20 of which could provide the sex-aggregated data on stakeholders and participants involved in program/project activities. The number of female and male stakeholders and participants involved in programs/projects appears as *Appendix 3*.

Department	Number of Projects	Number of stakeholders and participants		
		Total	Female	Male
Secretariat	6	1,638	605	1,033
TD	6	2,449	545	1,904
AQD	2	125	52	73
MFRD	1	36	20	16
MFRDMD	3	72	19	53
IFRDMD	2	410	169	241
Total	20	4,730	1,410	3,320

- Gender-related trainings/seminars/ workshops organized by SEAFDEC and number of participants

During the year 2019, SEAFDEC Secretariat and Department organized the special seminar and workshops on gender as follows:

Titles of gender-related trainings/seminars/ workshops	Number of participants		Department
	Female	Male	
Special Seminar on Gender in Fisheries (7 March 2019, Secretariat)	47	20	Sec
Regional Workshop on Gender Integration in Fisheries (21-23 January 2020)	18	10	TD
Workshop on the Development of the Action Plan for SEAFDEC Gender Strategy (9 July 2019, Samut Prakan, Thailand)	22	9	TD
Experts Consultation Workshop on Finalization of the Practical Guide for Gender Analysis in Small-scale Fisheries and Aquaculture in Southeast Asia (11 July 2019, Samut Prakan, Thailand)	32	8	TD

- Program/project proposals incorporating gender aspects that seek external funding support, and amount of budget requested/received

SEAFDEC also collaborated with other national/regional/international organizations and institutions to seek funding support for the implementation of gender activities, as follows:

Title of program/project proposals incorporating gender aspects	Amount of budget (US\$)	Departments
Gender Dimension in the Value Chain of Small-scale Fisheries and Aquaculture in Southeast Asia (pipeline project)	98,000 (proposed)	TD

Strategy 3: Incorporating gender perspectives in all events organized by SEAFDEC

- Meeting, training, etc organized by SEAFDEC

During 2019, the total number of events organized by SEAFDEC and total number of participants, (including SEAFDEC staff, participants, observers, resource person, etc.) disaggregated to male and female, could be summarized as follows:

Category	Sec				TD				AQD			
	Event	No. of Participant			Event	No. of Participant			Event	No. of Participant		
		Total	F	M		Total	F	M		Total	F	M
SEAFDEC regional/international meetings, seminars, workshops	16	759	222	537	11	270	125	145	1	53*	N/A	N/A
SEAFDEC national/local meetings, seminars, workshops, consultations, etc.	6	105	55	55	12	291*	50	184	0	0	0	0
International/regional training courses	0	0	0	0	6	102	15	87	16	95	27	68
National, on-site training courses (course/trainees)	0	0	0	0	15	325*	59	182	15	223	79	144
Study tours (no. of program/trainees)	0	0	0	0	4	58*	4	13	1	15	N/A	N/A
Internships (group/persons)	0	0	0	0	0	0	0	0	1	5	2	3
On-the-job trainings (students)	0	0	0	0	4	8	3	5	1	236	135	101
SEAFDEC Internal Events	6	370	175	195	1	1300	N/A	N/A	5	580*	95	155
Total	28	1234	452	787	53	2354	256	446	40	1207	338	471

Cont'd

Category	MFRD				MFRDMD				IFRMD			
	Event	No. of Participant			Event	No. of Participant			Event	No. of Participant		
		Total	F	M		Total	F	M		Total	F	M
SEAFDEC regional/international meetings,	1	20	13	7	1	19*	N/A	N/A	2	48*	11	7

Category	MFRD				MFRDMD				IFRMD			
	Event	No. of Participant			Event	No. of Participant			Event	No. of Participant		
		Total	F	M		Total	F	M		Total	F	M
seminars, workshops												
SEAFDEC national/local meetings, seminars, workshops, consultations, etc.	0	0	0	0	1	18*	N/A	N/A	0	0	0	0
International/regional training courses	0	0	0	0	1	23*	N/A	N/A	0	0	0	0
National, on-site training courses (course/trainees)	0	0	0	0	1	8	3	5	7	219*	N/A	N/A
Study tours (no. of program/trainees)	0	0	0	0	0	0	0	0	0	0	0	0
Internships (group/persons)	0	0	0	0	0	0	0	0	0	0	0	0
On-the-job trainings (students)	0	0	0	0	0	0	0	0	0	0	0	0
SEAFDEC Internal Events	0	0	0	0	4	45*	10	18	1	10*	N/A	N/A
Total	1	20	13	7	8	113	13	23	10	277	11	7

(See the list of activities in *Appendix 4*)

* Some events couldn't provide the data of sex-disaggregated

Strategy 4: Boosting the visibility of SEAFDEC as a gender-responsive and gender-sensitive organization

- Gender-related articles in SEAFDEC and non-SEAFDEC publications

None

- Number of gender-related papers/posters presented at events

During 2019, the number of gender-related papers/posters presented by SEAFDEC at events organized by the other organizations could be summarized as follows:

	Sec		TD		MFRD		AQD		MFRDMD		IFRDMD	
	Ora l	Post er	Ora l	Post er	Ora l	Post er	Ora l	Post er	Ora l	Post er	Ora l	Post er
Meeting organized by other organizations at regional/ international level	-	-	1	-	-	-	-	-	-	-	-	-
Meeting organized by other organizations at national/local level	1	-	3	-	-	-	-	-	-	-	-	-
TOTAL	1	-	4	-	-	-	-	-	-	-	-	-

(See the list of activities in *Appendix 5*)

- Gender-related articles/papers/reports produced/disseminated

During the year 2019, SEAFDEC Secretariat and Departments produces eight (8) articles/paper/reports that has content related to gender-related activities, and distributed 1,350 hard copies and 440 by e-copy to target audience. The list of gender-related articles/papers/reports appears as *Appendix 6*.

- Gender-related commemorative events organized

In 2019, SEAFDEC Secretariat a Special Seminar on Gender in Fishery for commemorative of the International Women's Day, attended by 67 participants (20 female and 47 male) from SEAFDEC Secretariat, TD, DOF of Thailand, and FAO Regional Office for Asia and the Pacific.

Strategy 5: Strengthening further the cooperation and collaboration with Member Countries and other organizations on gender aspects

During the year 2019, SEAFDEC Secretariat and Departments cooperate with 3 countries and 2 organizations by participating in and serving as resource persons. The List of countries/organizations and events appears as *Appendix 7*.

List of Gender-related Policies/Regulations for SEAFDEC Staff

Gender-related policies/regulations	Department
SEAFDEC Gender Strategy-Mainstreaming gender in SEAFDEC and its programs	Sec
E.O. No. 1, Series of 1998-RRP – Granting of Paternity Leave of Seven (7) Days to Contractual, Probationary and Regular Employees	AQD
R.A. No. 11210 – Expanded Maternity Law	AQD
A.O. No. 13, Series of 2012-TA – Special Leave Benefits for Women Employees of AQD	AQD
A.O. No. 10, Series of 2012-FGA – Addendum to A.O. No. 13, Series of 2012-TA	AQD
E.O. No. 3, Series of 1999 – Granting of Special Leave Privileges	AQD
E.O. No. 04, Series of 2018-DDB – Granting of Solo Parent Leave Benefit	AQD
E.O. No. 09, Series of 2014-FGA – Granting of Bereavement Leave	AQD
E.O. No. 02, Series of 2019-DDB – New Guidelines on In-house Hospitalization Benefit Plan of SEAFDEC/AQD	AQD
E.O. No. 10, Series of 2014-FGA – Revised Policies and Procedures of the SEAFDEC/AQD Staff Development Program	AQD
Maternity & Paternity leave <ul style="list-style-type: none"> • A female officer with at least 3 months of service will be granted a total of 16 weeks of full-pay maternity leave for all her confinements if criteria specified are met. • Male officer may be granted 2 weeks of paternity leave on each occasion of the birth of all his children if he meets all the specified criteria 	MFRD
Maternity leave (3 months, max 5 times with maximum 360 days)	MFRDMD
Paternity leave (7days)	MFRDMD
Paternity/Maternity Leave	IFRDMD

List of Gender Equitable Facilities

Gender equitable facilities	Department
Temporary breastfeeding corner when required	Sec
Nursing/breastfeeding cubicles in identified buildings/areas in all stations of AQD	AQD
There is 1 male and 1 female toilet at Blk 14 Admin Building of MAC. There are 3 meeting rooms in this admin block which can also be converted into a temporary nursing/breastfeeding room when required.	MFRD
Muslim prayer room for female and male	MFRDMD
Breastfeeding Corner	IFRDMD

The List of Female and Male Stakeholder and Participants Involved in Programs/Projects

Titles of programs/projects	Number of stakeholders and participants involved in activities			Department
	Total	Female	Male	
Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia	781	275	506	Sec
SEAFDEC-EU/CITES Sharks Project Phase II	132	62	70	Sec
Strengthening the Effective Management of Inland Fisheries and Aquaculture in AMS with GIS and RS Technology	218	39	179	Sec
Assistance for Capacity Building in the Region to Address International Fish Trade-related Issues	197	84	113	Sec
Strengthening SEAFDEC Network for Sustainable Fisheries	6	2	4	Sec
Fisheries and Habitat Management, Climate Change and Social Well-being in Southeast Asia	304	143	161	Sec
Human Resource Development for Sustainable Fisheries	181	60	121	TD
Promotion of Sustainable Fisheries Resources Enhancement Measures in Critical Habitats/Fishing Grounds in Southeast Asia	164	70	94	TD
Promotion of Countermeasures to Reduce IUU Fishing Activities	60	17	43	TD
Enhancing the Compilation and Utilization of Fishery Statistics and Information for Sustainable Development and Management of Fisheries in Southeast Asian Region: <i>Facilitating Fisheries Activity Information Gathering through Introduction of Community-based Resources Management/ Co-management</i>	1,530	223	1,307	TD
Fisheries Resource Survey & Operational Plan for M.V. SEAFDEC 2	150	5	145	TD
The Oceans and Fisheries Partnership	364	170	194	TD & Oceans
Environment-friendly, Sustainable Utilization and Management of Fisheries and Aquaculture Resources	61 (177)	26	35	AQD
Reinforcement and Optimization of Fish Health Management and the Effective Dissemination in the Southeast Asian Region	64	26	38	AQD
Chemicals and Drug Residues in Fish and Fish Products in Southeast Asia-Biotoxins (ASP, AZA and BTX) and Harmful Algal Blooms (HABs) in the ASEAN Region	36	20	16	MFRD
Comparative Studies for Management of Purse Seine Fisheries in the Southeast Asian Region	10	3	7	MFRDMD
Research for Enhancement of Sustainable Utilization and Management of Sharks and Rays in the Southeast Asian Region	42	11	31	MFRDMD
Combating IUU Fishing in the Southeast Asian Region through Application of Catch Certification for Trade of Fish and Fishery Products	20	5	15	MFRDMD

Titles of programs/projects	Number of stakeholders and participants involved in activities			Department
	Total	Female	Male	
Enhancement of Sustainability of Catadromous Eel Resources in Southeast Asia	203	98	105	IFRDMD
Promotion of Responsible Utilization of Inland Fisheries in Southeast Asia	207	71	136	IFRDMD

List of Events Organized by SEAFDEC in 2019

Titles of SEAFDEC events (date, venue)	Category	Number of participants			Dept.
		Total	Female	Male	
5 th Meeting of the Scientific Working Group (SWG) for Stock Assessment on Neritic Tunas in the Southeast Asian Waters (9-11 January 2019, Bangkok, Thailand)	1	28	7	21	Sec
Regional Consultation for Development of the ASEAN-SEAFDEC Common Position on the Proposed Listing of Commercially-exploited Aquatic Species into the CITES Appendices (30-31 January 2019, Bangkok, Thailand)	1	40	10	30	Sec
Inception Meeting on “Strengthening the Effective Management of Inland Fisheries and Aquaculture in ASEAN Member States and with GIS and RS Technology” (1-2 February 2019, Samut Prakan, Thailand)	1	33	7	26	Sec
51 st Meeting of the SEAFDEC Council (18-22 March 2019, Surabaya, Indonesia)	1	79	22	57	Sec
Workshop on Statistic of Tropical Anguillid Eel in Southeast Asia (23 April 2019, Manila, Philippines)	1	45	15	30	Sec
Workshop on Aquaculture of Tropical Anguillid Eel in Southeast Asia (24-25 April 2019, Manila, Philippines)	1	45	15	30	Sec
Meeting on Way Forward of the Resolution & Plan of Action 2020 (1-2 May 2019, Bangkok, Thailand)	1	47	14	33	Sec
Gulf of Thailand Sub-regional MCS Meeting (20-21 June 2019, Chonburi, Thailand)	1	33	8	25	Sec
3 rd Regional Meeting on Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia (22-23 July 2019, Bangkok, Thailand)	1	40	13	27	Sec
Southern Andaman Sea Sub-region MCS Meeting (20-21 August 2019, Thailand)	1	33	11	22	Sec
8 th Meeting of the Gulf of Thailand Sub-region (4-5 September 2019, Chonburi province, Thailand)	1	34	13	21	Sec
ASEAN-SEAFDEC Regional Meeting on Way Forward of the Resolution and Plan of Action for the ASEAN Region Towards 2030 (10-11 September 2019, Bangkok, Thailand)	1	57	16	41	Sec
Technical Consultative Meeting on Drafting of the Regional Action Plan for Management of Transboundary Species: Indo-Pacific Mackerel in the Gulf of Thailand Sub-region (12-13 September 2019, Chonburi province, Thailand)	1	39	16	23	Sec
Regional Core Expert Meeting on Tropical Anguillid Eel Information Sharing (3-4 October 2019, Thailand)	1	28	11	17	Sec
End of the Project Meeting: Fisheries and Habitat Management, Climate Change and Social Well-being in Southeast Asia (2013-2019) (30-31 October 2019, Bangkok, Thailand)	1	158	38	120	Sec
Working Group Meeting on Collecting Data and Analysis for “Strengthening the Effective Management of Inland Fisheries and Aquaculture in	1	20	6	14	Sec

Titles of SEAFDEC events (date, venue)	Category	Number of participants			Dept.
		Total	Female	Male	
AMS with GIS and RS Technology” (28 November 2019, Vientiane, Lao PDR)					
SEAFDEC Training Workshop on Sharks Data Collection (15-17 January 2019, Iloilo, Philippines)	2	26	13	13	Sec
National Workshop on CITES Listed Non-Development Findings Document (18-19 July 2019, Samut Prakan, Thailand)	2	32	15	17	Sec
Meeting on Mathematic Model for Remote Sensing Analysis (GIS Mapping Project) (27-28 July 2019, Thailand)	2	9	1	8	Sec
Meeting on Mathematic Model for Remote Sensing Analysis (GIS Mapping Project) (30-31 July 2019, Siem Reap, Cambodia)	2	6	1	5	Sec
National Workshop on CITES Listed Non-Development Findings Document (6-7 August 2019, Tawau, Malaysia)	2	20	6	14	Sec
1-Year Shark Data Collection Validation Workshop (8-9 October 2019, Bangkok, Thailand)	2	12	1	11	Sec
Signing of Arrangement for Scientific and Educational Cooperation between FRA and SEAFDEC and Special Seminar on Combating IUU Fishing (22 January 2019, Bangkok, Thailand)	8	50	15	35	Sec
Special Seminar: Gender in Fishery (7 March 2019, Secretariat)	8	67	47	20	Sec
SEAFDEC-Sweden Project Annual Review Meeting (23 April 2019, Secretariat)	8	18	11	7	Sec
Special Seminar: C188 (31 July 2019, Secretariat)	8	34	16	18	Sec
Inception Meeting for SEAFDEC-Sweden Project Evaluation (3 July 2019, Bangkok, Thailand)	8	130	55	75	Sec
International Special Seminar on Marine Eco-Label Japan (26 November 2019, Bangkok, Thailand)	8	71	31	40	Sec
The Regional Technical Meeting on the Evaluation of the Collaborative Research Survey on Marine Fisheries Resources and Marine Environment in the Gulf of Thailand (8-9 January 2019, TD, Samut Prakan Province)	1	45	14	31	TD
Technical consultation and discussion to plan and prepare offshore fisheries resources research survey (M.V.SEAFFDEC2) in Malaysia waters (3-4 April 2019, SEAFDEC Training Department)	1	6	3	3	TD
Practical Workshop on Tuna Stock Risk Assessment for Yellowfin Tuna, Bigeye Tuna and Skipjack Tuna Resources in Sulu and Sulawesi Seas (SSSs) (13-18 May 2019, SEAFDEC Training Department)	1	13	4	9	TD
The Meeting on Regional Fishing Vessels Record (RFVR) in Southeast Asia as side event meeting in “the Fifth Meeting of the Global Record Informal Open-Ended Technical and Advisory Workshop Group (GRWG5)” (13-14 May 2019, South Korea)	1	22	5	17	TD
The Revising the Essential EAFM Curriculum Workshop (3-8 June 2019, TD, Samut Prakan)	1	25	10	15	TD
The Workshop on the Development of the Action Plan for SEAFDEC Gender Strategy (9 July 2019, TD, Samut Prakan)	1	23	20	3	TD

Titles of SEAFDEC events (date, venue)	Category	Number of participants			Dept.
		Total	Female	Male	
Experts Consultation Workshop on Finalization of the Practical Guide for Gender Analysis in Small-Scale Fisheries and Aquaculture in Southeast Asia (10-11 July 2019, TD, Samut Prakan)	1	40	28	12	TD
Regional Meeting on Indicator for Fisheries <i>Refugia</i> Management and Discussion on Project Follow-up (9-11 September 2019, Chonburi, Thailand)	1	17	2	15	TD
Regional Workshop on Lessons Learned from Application of EAFM in Different Learning Sites (7-8 October 2019, Bangkok, Thailand)	1	22	13	9	TD
Regional Workshop on Facilitating Fisheries Activities Information Gathering through Introduction of CBRM/Co-management in Southeast Asian Region (22-24 October 2019, Sakon Nakhon, Thailand)	1	31	15	16	TD
Regional Workshop on Fisheries Resource Enhancement and Habitat Conservation Measures in Southeast Asian (9-12 December 2019, Cambodia)	1	26	11	15	TD
The 2 nd Internal Technical Workshop on eACDS System (21-23 January 2019, TD, Samut Prakan Province)	2	7	1	6	TD
One-day Seminar in Sharing Knowledge and Lesson Learnt on Rice-Fish Farming (15 February 2019, Bangkok)	2	30	6	24	TD
The Meeting Workshop on Appropriate New Trawl and Purse Seine Fishing Vessel Design (18 February 2019, TD, Samut Prakan)	2	45	4	41	TD
Workshop on Key Stakeholders' Engagement and Investigate the Current Situation which Lead to the Low Income of the Fishers of the Project Site (21-23 February 2019, Lao PDR)	2	24	N/A	N/A	TD
Local meeting to raise awareness on fisheries management (18-22 Mar 2019, Nam Xouang reservoir, Vientiane, Lao PDR)	2	46	5	41	TD
Workshop: Development of the Fisheries Management Plan of Aung Kra Dein, Lao PDR (22-26 April 2019, Lao PDR)	2	9	4	5	TD
Workshop on Key Stakeholders' Engagement, Problem, Identification and Fisheries Management Plan Development (30 April-2 May 2019, Chaiyaphum Province)	2	14	5	9	TD
Workshop on Key Stakeholders' Engagement, Problem, Identification and Fisheries Management Plan Development (15-17 May 2019, Krabi Province)	2	30	10	20	TD
The Practical Workshop Fish Processing Products, Back to Back with Post-Socio-Economic Data Collection in the Pilot Site in Nam Xouang Reservoir, Lao PDR (24-29 November 2019, Lao PDR)	2	23	N/A	N/A	TD
The End Project Meeting of Community-based Resources Management in Lao PDR (24-25 December 2019, Lao PDR)	2	28	7	11	TD
Workshop on Coordination between Malaysia Agencies for Implementation of eACDS (16-20 December 2019, Malaysia)	2	15	5	10	TD

Titles of SEAFDEC events (date, venue)	Category	Number of participants			Dept.
		Total	Female	Male	
The Practical Workshop on Stock and Risk Assessment of Yellowfin Tuna (YFT) and Skipjack Tuna (SKJ) in the South China Sea using Software on CPUE Standardization, a Stock-Production Model Incorporating Covariates (ASPIC), Kobe Plot and Risk Assessment (16-20 December 2019, Viet Nam)	2	20	3	17	TD
Training on Age Determination Using Vertebra for Sharks and Rays (29 April-1 May 2019, TD, Samut Prakan Province)	3	30	10	20	TD
The Regional Training on Port State Measures (PSM) Implementation for Inspector in Southeast Asia (22-26 July 2019, TD, Samut Prakan)	3	36	4	32	TD
The Regional Reviews Training Program on Optimizing Energy Used and Improving Safety in Fishing Activities (5-9 August 2019, TD, Samut Prakan)	3	22	0	22	TD
Workshop for Key-in Data and Data Report for SEAFDEC Sharks and Rays Database (14-15 August 2019, TD, Samut Prakan)	3	3	0	3	TD
The Regional Training Course on Fish Handling Techniques Application to Various Fishing Operations in Southeast Asia (4-8 November 2019, TD, Samut Prakan)	3	7	1	6	TD
Japanese resource person advisory visit on fish larvae identification especially for Scombridae and Engraulidae family (1 July-3 August 2019, SEAFDEC Training Department)	3	4	0	4	TD
The Re-training on the Use of eACDS on Web-based and Mobile Application (Updated Version) (28-31 January 2019, Brunei)	4	30	2	28	TD
Training Course on Essential Ecosystem Approach to Fisheries Management (26 February-2 March 2019, Nakhon Ratchasima Province)	4	25	9	16	TD
On-site Training on the Implement of Fishery Machineries and Improvement of fish Handling On-board Purse Seine Vessels (6 March 2019, Pattani Province)	4	60	N/A	N/A	TD
Training on Principle of Fishing Gear for Thai Fishery Officers (13-22 March 2019, TD)	4	25	3	22	TD
On-site training course on Aquaculture technique (30 April – 1 May 2019, Khammouane Province, PDR)	4	24	N/A	N/A	TD
Training Course on Ecosystem Approach to Fisheries Management (27-31 May 2019, Chiang Mai Province)	4	20	7	13	TD
The 62 nd Short-term Training Course of University Students on Ecosystem Approach to Fisheries Management (EAFM) (4-14 June 2019, TD, Samut Prakan)	4	26	14	12	TD
Training of Trainers on Essential Ecosystem Approach to Fisheries Management (17-20 June 2019, Phra Nakhon Si Ayuthaya)	4	7	2	5	TD
Training on the Use of eACDS Application for Fishery Officers and Fishermen (Part I) (12-16 August 2019, Viet Nam)	4	21	2	19	TD

Titles of SEAFDEC events (date, venue)	Category	Number of participants			Dept.
		Total	Female	Male	
Training on the Use of eACDS Application for Fishery Officers and Fishermen (Part II) (26-30 August 2019, Viet Nam)	4	12	1	11	TD
Training on the Use of eACDS Application for Fishery Officers, Fish Buyers and Fish Processors (9-13 September 2019, Viet Nam)	4	14	2	12	TD
Training on the Use of eACDS Application in Statement of Catch (SC) Part for Fishery Officers (7-11 October 2019, Viet Nam)	4	4	0	4	TD
Training on the Use of the eACDS Application in Part of the Mobile Application Catch Reporting at Sea by Fishing Master (Offline Version) (21-25 October 2019, Brunei)	4	12	2	10	TD
Training Course on Essential Ecosystem Approach to Fisheries Management (25-29 November 2019, Krabi, Thailand)	4	25	8	17	TD
Training Course on Ecosystem Approach to Fisheries Management (EAFM) (16-20 December 2019, Cambodia)	4	20	7	13	TD
Tailor-made Training on Inland Fish Culture in Thailand (5-12 August 2019, Phra Nakhon Si Ayuthaya)	5	13	2	11	TD
Tailor-made Training Program on Application of EAFM-learning Site, Krabi Province (19-24 August 2019, Krabi Province)	5	10	2	8	TD
Study trip on fisheries management system for Fisheries Management Committee of Nam Xouang Reservoir, Vientiane, Lao PDR (23-26 September 2019, Lao PDR)	5	30	N/A	N/A	TD
Study Visit to Thailand for Project Working Committee (PWC) from Cambodia for Enhancement of Sustainable Management of the Blue Swimming Crab Fisheries (6-12 October 2019, Thailand)	5	5	0	5	TD
Students from Bulapha University (24 June-24 October 2019, TD)	7	2	0	2	TD
Students from Kasetsart university (1-30 June 2019, TD)	7	2	2	0	TD
Students from Phrasamutchedi Industrial and Community Education College (13 May-13 September 2019, TD)	7	3	0	3	TD
Students from Rajamongala University of Technology Tawan-ok (24 June-11 October 2019, TD)	7	1	1	0	TD
SEAFDEC Mini-marathon 2019: Fishermen Run	8	1,300	N/A	N/A	TD
International Workshop on the Promotion of Sustainable Aquaculture, Aquatic Animal Health, and Resource Enhancement in Southeast Asia (25-27 June 2019, Iloilo City)	1	53	N/A	N/A	AQD
Training Course on Grouper Culture (4 February-1 March 2019, Tigbauan, Iloilo)	3	2	0	2	AQD
Training Course on Fish Health Management (4 February-1 March 2019, Tigbauan, Iloilo)	3	2	1	1	AQD
Training Course on Sandfish Seed Production, Nursery &	3	6	1	5	AQD

Titles of SEAFDEC events (date, venue)	Category	Number of participants			Dept.
		Total	Female	Male	
Management (25 March-8 April 2019, Tigbauan, Iloilo)					
Training Course on Aquaculture Technologies (1 April-30 September 2019, Tigbauan, Iloilo)	3	1	1	0	AQD
Training Course on Freshwater Prawn Hatchery & Grow-out Operations (Session 2) (20-24 May 2019, Binangonan, Rizal)	3	11	3	8	AQD
Training Course on Seaweed Culture (17-24 June 2019, Tigbauan, Iloilo)	3	6	1	5	AQD
Training Course on Marine Fish Hatchery (24 June-30 July 2019, Tigbauan, Iloilo)	3	8	5	3	AQD
Training Course on Small-scale Inland Freshwater Aquaculture (5-23 August 2019, Tigbauan, Iloilo)	3	8	3	5	AQD
Training Course on Mangrove Crab Hatchery Operations (12 August-2 September 2019, Tigbauan, Iloilo)	3	14	2	12	AQD
Training Course on Mangrove Crab Nursery & Grow-out Operations (9-16 September 2019, Tigbauan, Iloilo)	3	3	3	0	AQD
Training Course on Mangrove Crab Nursery & Grow-out Operations (30 September - 9 October 2019, Tigbauan, Iloilo)	3	15	4	11	AQD
Training Course on Sandfish Seed Production, Nursery & Management (3-18 October 2019, Tigbauan, Iloilo)	3	3	0	3	AQD
Training Course on Catfish Hatchery & Grow-out Operations (21-25 October 2019, Binangonan, Rizal)	3	6	0	6	AQD
Training Course on Mangrove Crab Nursery & Grow-out Operations (4-13 November 2019, Tigbauan, Iloilo)	3	4	0	4	AQD
Training Course on Milkfish Hatchery (4 -13 November 2019, Tigbauan, Iloilo)	3	2	1	1	AQD
Training Course on Community-Based Freshwater Aquaculture (for remote rural areas of SEA) (18 November – 3 December 2019, Binangonan, Rizal)	3	4	2	2	AQD
Training Course on Mangrove Crab Fattening (28-30 January 2019, Tigbauan, Iloilo)	4	3	2	1	AQD
Training Course on Mangrove Crab Nursery (1-2 February 2019, New Buswang, Kalibo, Aklan)	4	10	1	9	AQD
Training Course on Freshwater Prawn Hatchery & Grow-out Operations (18-22 February 2019, Binangonan, Rizal)	4	7	3	4	AQD
Training Course on Algal Culture (18 February-1 March 2019, Tigbauan, Iloilo)	4	1	1	0	AQD
Training Course on Feeds & Feeding Management (26 February-5 March 2019, Tigbauan, Iloilo)	4	21	10	11	AQD
Training Course on Capacity Enhancement in Science & Aquaculture for Science High School Teachers (21-24 May 2019, Tigbauan, Iloilo)	4	23	20	3	AQD
Training Course on Mangrove Crab Hatchery, Nursery & Grow-out Operations (15-29 July 2019, Tigbauan, Iloilo)	4	12	3	9	AQD
Training Course on Mangrove Crab Nursery & Grow-out Operations (5-12 August 2019, Tigbauan, Iloilo)	4	14	3	11	AQD

Titles of SEAFDEC events (date, venue)	Category	Number of participants			Dept.
		Total	Female	Male	
Training Course on Milkfish Culture & Management (26 August-1 September 2019, Tigbauan, Iloilo)	4	15	9	6	AQD
Training Course on Mangrove Crab Nursery & Grow-out Operations (16-19 September 2019, Bagamanoc, Catanduanes)	4	35	8	27	AQD
Training Course on Milkfish Hatchery (21 - 30 October 2019, Tigbauan, Iloilo)	4	4	2	2	AQD
Training Course on Aquaculture Technologies (7-8 November 2019, Calapan, Oriental Mindoro)	4	30	8	22	AQD
Training Course on Grow-out Culture of Oyster (13 -14 November 2019, Roxas City, Capiz)	4	3	3	0	AQD
Training Course on Aquaculture Technologies (session 1) (18 - 22 November 2019, Tigbauan, Iloilo)	4	25	3	22	AQD
Training Course on Aquaculture Technologies (session 2) (25 - 29 November 2019, Tigbauan, Iloilo)	4	20	3	17	AQD
Study Tours	5	15	N/A	N/A	AQD
Internships	6	5	2	3	AQD
On-the-Job Trainings	7	236	135	101	AQD
Fire Brigade Training (2,3,7 May 2019, Tigbauan, Iloilo)	8	51	N/A	N/A	AQD
Motivational Talk on “Creating Better Teams Through Relational Unity” (9 July 2019, Tigbauan, Iloilo)	8	88	51	37	AQD
Financial Literacy Lecture (9 July 2019, Tigbauan, Iloilo)	8	67	44	23	AQD
Farmers’ Forum and Aquaculture Clinic (10 July 2019, Tigbauan, Iloilo)	8	187	N/A	N/A	AQD
27 th Dean Domiciano K. Villaluz (DKV) Memorial Lecture (11 July 2019, Tigbauan, Iloilo)	8	187	N/A	N/A	AQD
Terminal Meeting of The JTF VI Project: Combating IUU Fishing In Southeast Asia Through Application of Catch Certification for International Trade In Fish And Fishery Products, 3-5 September 2019, Melia Hotel, Kuala Lumpur.	1	19	N/A	N/A	MFRDMD
Kursus Pengenalan Taksonomi dan Biologi Ikan Marin 1/2019, 7-11 Julai 2019, MFRDMD, Kuala Terengganu, Malaysia	2	18	N/A	N/A	MFRDMD
Regional Training and Workshop on Chondrichthyan Taxonomy, Biology and Data Collection, 16-20 June 2019, SEAFDEC/MFRDMD	3	23	N/A	N/A	MFRDMD
Workshop on fish otolith analysis, 16 – 18 December 2019, University Malaysia Terengganu.	4	8	3	5	MFRDMD
International Workshop for Comparative Studies for Management of Purse Seine Fisheries in the Southeast Asian Region Project (7 termasuk usetia 2org), 12-14 February 2019, Grand Renai Hotel, Kota Bharu, Kelantan, Malaysia	8	11	4	7	MFRDMD
Mesyuarat dan Perbincangan Project Cycle Management (PCM) Bersama Pakar dari SEAFDEC Secretariat dan NACA, 24-25 February 2019, SEAFDEC/MFRDMD = Training on Project Cycle Management (PCM)	8	17	N/A	N/A	MFRDMD

Titles of SEAFDEC events (date, venue)	Category	Number of participants			Dept.
		Total	Female	Male	
Workshop on Project Terminal Evaluation for CBP4OICC Program, 15-17 April 2019, DOFM, Putrajaya	8	10	4	6	MFRDMD
Meeting on Preparation of Terminal Report with Resource Person for JTF VI Project – Comparative Studies for Management of Purse Seine fisheries in the Southeast Asian Region, 19-20 November 2019, Kuala Lumpur	8	7	2	5	MFRDMD
Japanese Trust Fund VI: Chemical and Drug Residues in Fish and Fish Products in Southeast Asia – Biotoxins (ASP, AZA and BTX) and Harmful Algal Blooms (HABs) in the ASEAN Region End-of-Project Meeting (14 – 15 August 2019, Singapore)	1	20	13	7	MFRD
Workshop on 5-Year of IFRDMD’s Achievement (8-9 October 2019, Jakarta)	1	30	N/A	N/A	IFRDMD
Regional Training Course for the Improvement on Management of Inland Fisheries (25-26 July 2019, Vientiane, Lao PDR)	1	18	11	7	IFRDMD
In-House Training on Techniques for Writing International Journal (12 February 2019, Palembang-Indonesia)	4	18	N/A	N/A	IFRDMD
In-House Training on Writing Skills for IFRDMD Members (1-5 April 2019, Palembang-Indonesia)	4	14	N/A	N/A	IFRDMD
Staff Training on Project Cycle Management for SEAFDEC/IFRDMD (27-28 February 2019, Palembang-Indonesia)	4	17	N/A	N/A	IFRDMD
International Class Aquatic Resource Management (13 February 2019, Palembang-Indonesia)	4	14	N/A	N/A	IFRDMD
International class “Inland Fisheries Research Towards Sustainable Utilization” (9 September 2019, Palembang)	4	94	N/A	N/A	IFRDMD
In-house training on inland fisheries and biodiversity in southeast asia (23 September 2019, Palembang-Indonesia)	4	41	N/A	N/A	IFRDMD
In-House Training on Drone and Its Utilization on Inland Fisheries	4	21	N/A	N/A	IFRDMD
Semi-Annual Meeting (6 September 2019, Palembang-Indonesia)	8	10	N/A	N/A	IFRDMD

Category:

- 1) International/regional meetings, seminar, workshop
- 2) National/local meeting, seminar, workshop, consultation, etc.
- 3) International/regional training course
- 4) National, On-site training courses
- 5) Study tour
- 6) Internship
- 7) On-the-Job training
- 8) SEAFDEC Internal Events

SEAFDEC Participation in Gender-related Events Organized by Other (non-SEAFDEC) Organizations in 2019

Titles of events (date, venue)	No. of presentations by SEAFDEC		Organizers	Department
	Oral	Poster		
Workshop on Gender Concepts, Tools and Advocacy in Sustainable Fisheries Management (6-9 August 2019, Manado, Indonesia)	1	0	USAID Oceans	Sec
Workshop on Raising Awareness of Gender Equity and Women Empowerment in Fisheries Management in General Santos and Sarangani Bay Area (21-23 February 2019, General Santos, Philippines)	1	0	USAID Oceans	TD
Capacity Development Training Workshop on Gender Analysis for Fisheries Management and Development in Mekong Region (12-14 March 2019, Vientiane, Lao PDR)	1	0	USAID Oceans	TD
Capacity Building on Gender Sensitivity and Responsiveness: National Roadmap Workshop (26-27 March 2019, Jakarta, Indonesia)	1	0	USAID Oceans	TD
Workshop on Empowering Fisheries Officers for Gender-Responsive and Sustainable Fisheries Management (25-26 April 2019, Iloilo, Philippines)	1	0	USAID Oceans	TD

List of Gender-related Articles/Papers/Reports Produced in 2019

Titles gender-related articles/papers/reports	Hard copy		E-copy		Department
	No. of copies produced	No. of copies distributed	Distributed through e-mail	Downloaded	
SEAFDEC Gender Strategy	1,000	600	-	98	Sec
Gender in Coastal and Fisheries Resources Management: A Regional Synthesis Report	-	-	-	59	Sec
Gender Analysis Toolkit for Coastal Management Practitioners	-	-	-	61	Sec
Regional Dialogue on Gender Dimension in Coastal and Fisheries Resources Management in South Asia and Southeast Asia	-	-	-	9	Sec
Policy Brief: Applying Human Rights-based and Gender Equality Approaches to Small-scale Fisheries in Southeast Asia	1,000	700	-	109	Sec
Proceeding of the End of Project Meeting: Fisheries and Habitat Management, Climate Change and Social Well-being in Southeast Asia	-	-	-	54	Sec
Report of the Experts Consultation Workshop on Guidance to Monitoring and Evaluation of Gender Equity and Social Well-being in Fisheries Communities on 10-11 July 2019	70	50	50	-	TD
Draft Practical Guide for Gender Analysis in Small-scale Fisheries and Aquaculture in Southeast Asia (in progress)	-	-	-	-	TD

List of SEAFDEC participations in gender-related events organized by other organizations

[This list under Strategy 5, it should start with country/organization name?]

Titles gender-related events (date, venue)	Number of participants by nature of participation				
	Participants	Resource persons	Trainees	Trainers	Observers
Workshop on Gender Concepts, Tools and Advocacy in Sustainable Fisheries Management (6-9 August 2019, Manado, Indonesia)	-	1	-	-	-
Workshop on Raising Awareness of Gender Equity and Women Empowerment in Fisheries Management in General Santos and Sarangani Bay Area (21-23 February 2019, General Santos, Philippines)	-	1	-	-	-
Capacity Development Training Workshop on Gender Analysis for Fisheries Management and Development in Mekong Region (12-14 March 2019, Vientiane, Lao PDR)	-	1	-	-	-
Capacity Building on Gender Sensitivity and Responsiveness: National Roadmap Workshop (26-27 March 2019, Jakarta, Indonesia)	-	1	-	-	-
Workshop on Empowering Fisheries Officers for Gender-Responsive and Sustainable Fisheries Management (25-26 April 2019, Iloilo, Philippines)	-	2	-	-	-

5-YEAR ACHIEVEMENT OF IFRDMD

EXECUTIVE SUMMARY

Since the establishment of SEAFDEC/Inland Fishery Resources Development and Management Department (SEAFDEC/IFRDMD) on 2 September 2014, now, IFRDMD reached 5 years working on promotion of the Inland fisheries development of Southeast Asia. IFRDMD is tasked to manage and coordinate the project activities of SEAFDEC that aim to promote the sustainable development and management of the inland capture fisheries in the region. During the 5 years, IFRDMD conducted the initial regional projects on the “Promotion of Responsible Utilization of Inland Fisheries Resources in Southeast Asia” and “Enhancement of sustainability of catadromous eel resources in Southeast Asia”, which are considered as a way of establishing and strengthening regional networking for sustainable inland fisheries management and fish conservation of inland water resources.

Overall Achievement of the IFRMD during the past 5 years.

IFRDMD conducted two regional projects for reviewing the present status of inland fisheries and another one on the present status of anguillid eel fisheries in ASEAN Member States (AMSs). Beside that IFRDMD enhanced the capacity building with the researchers to attend the national and international trainings and meetings, dissemination of their research, and to coordinate the in-house trainings. Under the Promotion of Responsible Utilization of Inland Fisheries Resources project, the Workshop to Review Activities and Methodologies for Promotion on Inland Fishery was conducted to gather various kind of valuable information of inland fisheries in the region and made the summarization. IFRDMD started to grasp the information not only from the surveys or interview but also through kinds of literature and internet that the information gathering was to publish in the semi-popular publication at the end of the project. IFRDMD also conducted the Regional Training Course for the improvement on the management of inland fisheries which was held in July 2019, in Vientiane, Lao PDR that the participants came from Cambodia, Lao PDR, Myanmar, Viet Nam, Thailand, and Indonesia. The researchers and officers of AMS enhanced their capacity building on improving the management on inland fisheries. At the end of project, IFRDMD organized the Workshop on 5-year of IFRDMD’s Achievement for reviewing the result of the department and getting the improvement of inland fisheries study from AMSs. Under Enhancement of sustainability of catadromous eel resources project, the first Workshop on Enhancement of Sustainability of Catadromous Eel Resources in South East Asia was conducted to review the achievements of Catadromous eel research’s; to provide the database of Catadromous eel; and to discuss the strategic framework for collecting eel fisheries statistic. Publish a book entitle: “The Features of Inland Fisheries in Southeast Asia”, create a comic with title “Anguillid Eel: the Tough Fish, Contributed publication on SEAFDEC newsletter, Fish for People and other scientific journal.

Challenges or Key recommendations from the Workshop on 5-year of IFRDMD's Achievement

- Lack of accurate information about the recent status of inland fisheries;
- Habitat destruction and abundance of native species on Inland waters;
- Proper data of the value of inland fisheries as concerned for the policy makers in the future;
- Several countries in Southeast Asia got contribution from inland fishery production to food security, poverty alleviation, and livelihoods opportunities;
- Really hard to plot the data in inland fisheries because every country has their own methodology;
- Regulation for restocking on inland waters;
- Proper analysis as the best data to analyze the current situation of anguillid eels;
- Provide and share the missing data about anguillid eels; and
- Current situation of anguillid eels concerning about IUCN status, lack of data, and the UN 2030 agenda for sustainability.

REQUIRED CONSIDERATION BY THE COUNCIL

- To take note of the 5-year achievement of IFRDMD; and

- To provide comments and policy directives for promoting the sustainability of inland fisheries for Southeast Asia in the future.

I. Introduction

In Southeast Asian region, inland fisheries are characterized by great diversity in the range of gears used, types of environments in which they are used and the socially and culturally complex societies within which they operate. It provides many countries of the Southeast Asia with food fish that supply the nutrition and for food security. During the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020 “Fish for the People 2020: Adaption to a Chang environment in 2011, emphasized on the effort to enhance awareness of stakeholders on the contribution of inland fisheries to food security and sustainable livelihoods. Later on, Indonesia by the Ministry of Marine Affair and Fisheries of Indonesia offered to host a regional center for inland fisheries as part of SEAFDEC organization. Since then, Inland Fishery Resources Development and Management Department (IFRDMD) was finally established on 2 September 2014 as the Fifth Technical Department of SEAFDEC. Located in Palembang, Indonesia, IFRDMD is responsible for conducting activities to support sustainable development and management of inland capture fisheries in the Southeast Asian region. Activities of IFRDMD also cover development of methodologies for data collection, monitoring and assessment of inland fishery resources to provide scientific basis for development and management of fisheries. Since its establishment in 2014, IFRDMD now reached 5 years working on promotion of the inland fisheries development of Southeast Asia. During 5 years, IFRDMD is tasked to manage and coordinate the project activities of SEAFDEC that aim to promote the sustainable development and management of the inland capture fisheries region. IFRDMD carried out the activities of the initial projects on the "Promotion of Responsible Utilization of Inland Fisheries Resources in Southeast Asia" and "Enhancement of sustainability of catadromous eel resources in Southeast Asia", which are considered as a way of establishing and strengthening regional networking for sustainable inland fisheries management and fish conservation of inland water resources.

II. Overall achievement of the IFRMD during the past 5 years

a. Promotion of Responsible Utilization of Inland Fisheries Resources in Southeast Asia

Under the 5-year Project on “Promotion of Responsible Utilization of Inland Fisheries Resources in Southeast Asia”, IFRDMD conducted several activities to gather inland fisheries information in Southeast Asia and provide capacity building. The IFRDMD facilitated the AMSs to review of activities and methodologies for the promotion of inland fisheries and find ways forward, to promote of effective inland fisheries management measures and to study of habitat conservation/resources enhancement measures.

IFRDMD conducted the field surveys to investigate the present status of inland fisheries in Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam. The information showed the present status and various kind of information regarding inland fisheries and surrounding issues in AMSs. For example, through the field surveys in Lao PDR and Cambodia found that there are different types of inland waters and variety of management measures are applied at each condition. Inland fisheries in Lao PDR are conducted in various inland waters such as rivers, swamps, rice-paddies and so on. However, the collecting catch information and surveys are mainly conducted limitedly in reservoirs. In Cambodia, fishers have various fisheries activities and they change/adapt their fishing methods, places, and related activities with the season especially related the water levels.

In addition, IFRDMD raised the awareness of the people by setting up the conservation zone signboards to promote the responsible on the utilization of inland fisheries in Nam Xouang Reservoir, Lao PDR, and three lakes (Cala Lake, Ulak Lia Lake, and Siarak Lake) in Musi Banyuasin Regency, Indonesia. Finally, IFRDMD compiled such information that covered the basic data on the features of inland capture fisheries in the region and effective for consideration and planning our future activities. IFRDMD also compiled the information on inland management measures in Southeast Asian countries and how the countries implement such management in their respective countries. The information was included on co-management and right-based fisheries management applicable to inland fisheries in the region.

In addition, IFRDMD also provided the capacity building and raising awareness on the development of habitat conservation and resources enhancement measures. IFRDMD initiated to set up the signboards to promote the responsible on utilization of inland fisheries in Nam Xouang Reservoir, Lad PDR and three lakes (Cala Lake, Ulak Lia Lake and Siarak Lake) in Musi Banyuasin Regency, South Sumatra Province, Indonesia

To enhance the capacity building of the researchers of IFRDMD, IFRDMD dispatched the researchers to attend the relevant trainings and meetings, and coordinate the in-house trainings. The dissemination of the result of researches was done by presenting in the relevant conferences.

At the end of project duration, IFRDMD organized the Workshop on 5-year of IFRDMD's Achievement for reviewing the result of the department and getting the improvement of inland fisheries study from AMSs. The recommendations is describes in later section.

b. Enhancement of sustainability of catadromous eel resources in Southeast Asia

Catadromous eels (*Anguilla spp.*) are popular and important commercial food and value in Southeast Asian countries. Some of anguillid eel species are listing in the CITES Appendices and found that the market value of tropical eels has risen recent years. Since 2015, IFRDMD, with the funding support from the Japanese Trust Fund (JTF), carried out the activities to enhance the sustainability of anguillid eels in the Region. IFRDMD conducted the field surveys to find out the present status of anguillid eel fisheries in AMS. The results indicated that very limited member countries provide national statistical data on tropical anguillid eels. However, a series of data were collected from Myanmar, Indonesia, Philippines and Viet Nam as a baseline to be explored. Description of data includes trend of each country were plotted to indicate their status and trends of harvesting. Eel samples that exist in Southeast Asia (Indonesia, Myanmar and the Philippines) have been identified. There are six species/subspecies identified namely: *Anguilla bicolor bicolor*, *A. bicolor pacifica*, *A. marmorata*, *A. bengalensis*, *A. interioris* and *A. luzonensis*.

IFRDMD got the information on the species identification of anguillid eels in AMS by morphological character and DNA analysis. IFRDMD established and improved the method of data collection on eel fisheries in Indonesia, Myanmar, Philippines and Viet Nam, with mutual understanding of the differences and similarities on eel fisheries at each AMS, due to limited data of anguillid eel fisheries on national statistical data. It needs to find out the critical issues regarding the stock assessment to achieve the sustainable use of anguillid eel resources, before considering the several concrete management measures.

The significant outputs from the Project, IFRDMD developed the regional Policy Recommendations on Conservation and Management of Catadromous Eel Resources and Aquaculture in Southeast Asia, which was adopted by the 17th Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (FCG/ASSP) in December 2014, and the 23rd Meeting of the ASEAN Sectoral Working Group on Fisheries (ASWGF) in June 2015. Moreover, attention was also paid on the recommendation of the CITES Animal Committee Meeting in 2018 on the need to strengthen the management of tropical anguillid eels to ensure their sustainable utilization.

In addition, the Policy Guidelines for Regional Conservation and Management of Tropical Anguillid Eels Resources in Southeast Asia was endorsed by 41st Meeting of AMAF in November 2019. This Policy Guidelines is intended to propose a way of formulating and implementing effective regional management measures, as well as recommend the actions that should be taken for the sustainable utilization of Inland Fisheries Resources and tropical anguillid eels in the Southeast Asian region.

To enhance the capacity building of the researchers of IFRDMD, IFRDMD dispatched the researchers to attend the relevant trainings and meetings, and coordinated the in-house trainings. The dissemination of the result of researches was done by presenting at relevant conferences.

At the end of project duration, IFRDMD organized the Workshop on 5-year of IFRDMD's Achievement in 2019 for reviewing the result of the department and getting the improvement of eel fisheries study from AMSs.

Based on the discussion during the Workshop in 2019, the Workshop noted that for the effective and sound conservation and management of tropical anguillid eel resources in the ASEAN region, the AMSs and SEAFDEC addressed several issues such as: inadequate statistical data on eel resource utilization such as catch data, as well as a systematic data collection scheme, limited information on eel aquaculture (*i.e.* number of eel aquaculture farmers, eel culture production, and quantity of glass eels purchased and used by farmers), geographic range of information on tropical anguillid eel species is insufficient, limited stock assessment studies on tropical anguillid eels, limited effective conservation and management measures for tropical anguillid eels and mixed statistics on international trade of tropical anguillid eels.

c. Development of Capacity Building Plan to support Management of Inland Aquatic Resources, Development of EAFM/EAA Training Modules and Conducting Training of Trainers on EAFM/EAA

In 2019, IFRDMD and FAO entered into the Agreement to undertake the activities on development and improvement of capacity building plan to support management Aquatic of inland resources, Development of EAFM/EAA Training Modules, and conducting Training of Trainers on EAFM/EAA in 5 locations (Cilacap District, Sukabumi District, Kampar District, Kapuas District and South Barito District). Based on this collaboration, IFRDMD delivered the capacity building plan for sustainable management of inland aquatic resources, focused on mainstreaming biodiversity and developed at national and district levels based on the need assessment. IFRDMD developed the EAFM/EAA training modules and provided the EAFM/EAA training courses in 5 provinces of Indonesia with total of 100 participants from related stakeholder were trained.

d. Improve livelihoods from Responsible Fisheries and Capacity for Conservation by Preserving Clown Knife Fish Habitats and Protecting their Occurrence

IFRDMD carried out the project on “Improve livelihoods from Responsible Fisheries and Capacity for Conservation by Preserving Clown Knife Fish Habitats and Protecting their Occurrence”, started from April 2019 until 2020. This project intends to combine mainstreaming of inland aquatic biodiversity into resource development and management policy, with demonstrations of conservation and sustainable use of inland aquatic biodiversity in critical habitats at Riau Province and effective monitoring and assessment of Clown knife fish (*Chitala lopis*) in Indonesia.

e. Information Dissemination

Over the past five (5) years, IFRDMD produced several articles and publications to disseminate the project results for example:

- Publish a book entitle: The Features of Inland Fisheries in Southeast Asia”, launches in October 2019
- Contributed publication on SEAFDEC newsletter start from January 2015 (<http://www.seafdec.org/download/seafdec-newsletter>)
- Contributed publication on Fish for People start from July 2016 (<http://www.seafdec.org/download/fish-people>)

III. Challenges or Key recommendations

In October 2019, IFRDMD organized the Workshop on 5-year of IFRDMD’s Achievement for reviewing the result of the department and getting the improvement of inland fisheries study from AMSs. Some key challenges and recommendations are described as follows for future consideration:

- Lack of accurate information about the recent status of inland fisheries
- Habitat destruction and abundance of native species
- Proper data of the value of inland fisheries as concerned for the policy makers in the future.
- Several countries in Southeast Asia got contribution from inland fishery production to food security, poverty alleviation, and livelihoods opportunities

- Really hard to plot the data in inland fisheries because every country has their own methodology.
- Regulation for Restocking on inland waters
- Proper analysis as the best data to analyze the current situation of anguillid eel.
- Provide and shares the missing data about anguillid eel
- Current situation of Anguillid eels concerning about IUCN status, lack of data, and the UN 2030 agenda for sustainability.
- Start the regulation, policy, methodology and how to manage the fisheries because there are no adequate data in AMs.

In addition, proposed plan of action to enhance data collection in inland fisheries involve communities to improve data collection by strengthening the capacity building of the communities and work together with systematically and start with the same methodology and the same template for assessment of inland fisheries.

IV. Conclusion

Over the 5 years since its establishment, IFRDMD has been performing the role as regional center to harness the potentials of the water bodies through research and development programs and activities. The significant deliverable during the 5 years made such as policy recommendation on the sustainability of catadromous eel resources and Policy Guidelines for Regional Conservation and Management of Tropical Anguillid Eels Resources in Southeast Asia. In addition, IFRDMD provided trainings for officers of AMSs to enhance the capability and knowledge of AMSs in the development, management and conservation of inland fishery resources.

However, it should note that inland fisheries in context of socio-ecological system approach are started from one aquatic system which associated between ecosystem services and benefits for people. But, government still has lack of understanding of the complexity of inland fisheries. For that in the future, need to set for inland fisheries is not only fish but also human behavior. So, it needs combination between biological data and socio-economic data collection, not only qualitative data but also behavior of the fishers for collecting smarter and more precise data.

REGIONAL FISHERIES POLICY NETWORK (RFPN)

I. BACKGROUND

The Regional Fisheries Policy Network (RFPN) program originated from the Working Group on Regional Fisheries Policy (WGRFP) which was established in 1998. At that time, the WGRFP comprised high-caliber middle-level government officers seconded by the SEAFDEC Member Countries in order to perform the tasks in giving advice to the SEAFDEC Secretary-General and Departments on relevant regional and global issues, and suggesting appropriate actions to be taken, if necessary; preparing draft regional fisheries policies for the Southeast Asian region; and coordinating the implementation of regular and extra-budgetary funded regional programs with the relevant SEAFDEC Departments.

In 2007, with the change in SEAFDEC financial situation, the SEAFDEC Council during its 39th Meeting endorsed the adjustment of the program on WGRFP to the Regional Fisheries Policy Network (RFPN) program. It was anticipated that in addition to the current role of the RFPN in providing views and inputs on various issues *e.g.* international fisheries related issues, etc.; in the future, the role of RFPN would be extended to cover other regional priority and policy issues, and provide assistance in the implementation of SEAFDEC regional programs.

From 2007 to 2019, the RFPN was supported by the SEAFDEC-Sweden Project (5 members) and the SEAFDEC Japanese Trust Fund (3 members), with the Terms of Reference as appears in *Appendix 1*. The RFPN members were tasked to take leading roles in monitoring international fisheries-related issues and communicating with identified lead countries to tackle such issues in order to enhance discussion and formulation of the common position of the region. In addition, in each year, the RFPN members also formed a network, not only to bridge the cooperation between SEAFDEC and their respective countries, but also among the RFPN members within the same batch with whom they had interacted with and learnt how to work as a team within multicultural working environment. With this, SEAFDEC could anticipate that after the RFPN members completed their assignment and returned back their country, they would keep the connection among the group that could serve as basis for closer cooperation among their respective countries in the future.

Nevertheless, due to the completion of the SEAFDEC-Sweden Project in 2019, it could be anticipated that from 2020 to 2024, the only funding sources to support the RFPN would be the Japanese Trust Fund (JTF). Thus, the SEAFDEC Council, during the 51st Meeting of the SEAFDEC Council in March 2019, agreed that starting from 2020, the RFPN would be continued with the support of the JTF for four members in each year on a rotational basis, following the alphabetical order of the SEAFDEC Member Countries. In line with the recommendations of the Council, in 2020, the national fisheries officers from MCs namely: Indonesia, Lao PDR, Myanmar and Philippines, were nominated to serve as RFPN of 2020 (although as of March 2020, their secondment to work at the SEAFDEC Secretariat has been pending due to the world-wide coronavirus (COVID-2019) outbreak's situation).

II. PROPOSED ADJUSTMENT OF THE TOTAL NUMBER OF RFPN MEMBERS AND TIMEFRAME IN 2021

Although it was agreed during the 51st Meeting of the Council in 2019 that SEAFDEC, through the JTF, shall provide financial support to the RFPN program for four (4) members for a one-year basis; however, when considering the crucial benefits from having RFPN mechanism in gathering of inputs that represent views from the countries/region and forming network of cooperation with SEAFDEC and among the countries, not only during their secondment at SEAFDEC but also afterward; it could be anticipated that such results would be difficult to achieve with small number of RFPN members (*i.e.* four). Furthermore, communication process in obtaining nomination of all RFPN members from countries on a rotational basis also takes longer time, *e.g.* in case some countries decline to nominate the member, communication process will have to start again with other countries in the next alphabetical order. Considering these circumstances, adjustments of the RFPN program, *i.e.* to have more RFPN members, and to shorten the time frame but have all members start at the same period, are envisaged to be more beneficial, *Refugis*:

- Views from more number of RFPN members would reflect broader range of situations and issues in the Southeast Asian region, such as during their representation at SEAFDEC consultations or workshops in development of regional fisheries policy, etc.
- National information gathered and shared by more RFPN members, such as on national policies/regulations on specific issues, best practices, country's fisheries/fish trade profiles, etc., would cover more countries in the region.
- More staff from the Member Countries would have capacity building opportunity in acquiring knowledge and understanding on fisheries-related issues under the focus of SEAFDEC, as well as experiences in working and coordination with other countries in multi-cultural environment.
- Having more RFPN members within the same batch would help enhance wider network of cooperation among countries in the future.

SEAFDEC therefore proposes the adjustment of the RFPN program as follows:

1. The number of the RFPN members should be at least 8 members (one each from 8 countries); and
2. The period of the RFPN assignment should be 6 months, starting from June to November of each year.

In connection to this, the timeframe for requesting nomination of the RFPN members should also be adjusted as follows:

Period	Actions
By 1 st August (of the previous year)	The SEAFDEC Secretariat sends letters to AMSs (except Singapore and Brunei Darussalam) requesting for nomination of their respective RFPN member
By 31 st December (of the previous year)	The AMSs submit their respective nomination letter to the SEAFDEC Secretariat
January - May (current year)	Each staff nominated as RFPN member undertakes in-country process in preparation of documents and seeking approval from relevant authorities (passport, visa, clearance of works, etc.)
1 st June – 30 th November (current year)	All nominated staffs serve as RFPN members at the SEAFDEC Secretariat for the period of 6 months

III. PROPOSED ADJUSTMENT OF SCOPE OF WORKS FOR THE RFPN MEMBERS IN THE YEAR 2022 AND ONWARD

Considering that the priorities and issues on fisheries (inland and coastal/marine capture) and aquaculture at national and regional levels has changed over the years where the interests of the SEAFDEC Member Countries in developing their respective human resources may be different from one country to another. Over the years, SEAFDEC and its Departments has increased a lot of inhouse capacities and facilities to be able to provide the MCs various capacity development programs covering all areas of fishery development. In this connection, it would be timely to revisit the scope of work for the RFPN members in the year 2022 and onwards.

The proposed idea is that the scope of work for RFPN program in 2022 and onwards may change from the current agreed TOR of SEAFDEC RFPN to be a kind of a comprehensive capacity development program with specific focus on the needs of each MC. By this approach, the appropriate timeframe with the subject (s) and place to be stationed for each RFPN would be discussed and agreed by her/his respective country in consultation with the SEAFDEC Secretariat and relevant Department of SEAFDEC. This process to finalize the annual program of each RFPN is subject to be discussed between SEAFDEC Secretariat and the relevant Department (s) of SEAFDEC and submit all of the RFPN program for consideration by the Program Committee Members.

IV. REQUIRED CONSIDERATION BY THE COUNCIL

To consider and provide directives on:

- the proposed adjustment of the total number of the RFPN members and timeframes in 2021; and
- the proposed adjustment of scope of works for the RFPN members in the year 2022 and onward.

SEAFDEC REGIONAL FISHERIES POLICY NETWORK

Terms of Reference

The Regional Fisheries Policy Network (RFPN) is made up of officers from Member Countries that are appointed by the respective country to be stationed at the Secretariat, subject to the availability of funds. The inputs by RFPN will be used to promote regional and sub-regional cooperation. They will provide important contributions to events and activities under SEAFDEC program including responses to climate change and adaptation and other SEAFDEC activities and consultations as decided from time to time and they will be active in the process to:

- (a) Identify issues related to fisheries, raised at national, sub-regional, regional and international levels, which may have potential impacts to fisheries in the region;
- (b) Identify studies and activities that should be conducted to compile information on the identified issues as a basis for developing policy recommendations and strengthening regional and sub-regional coordination;
- (c) Initiate and promote the formulation of regional fisheries policies and policy recommendations, including the preparation and finalization of the required working/position or background papers;
- (d) Promote in-country (for Member Countries) or in-department (for SEAFDEC Departments) coordination to compile relevant information and data as inputs to conduct studies, on-site training consultations and other activities;
- (e) Support the development of strategies to promote closer policy dialogues and regional and sub-regional cooperation among the Member Countries and SEAFDEC; and
- (f) Follow-up on the implementation of policies for ASEAN and the ASEAN region on fisheries, aquatic environment and climate change, international convention and agreements in the Member Countries.

Annex 34

AUDITED CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR 2018

SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
AUDITED ABRIDGED CONSOLIDATED FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2018 AND 2017

	In US\$	
	2018	2017
REVENUES		
Contributions from :-		
Member governments	10,210,335	9,600,319
Other sources	1,794,569	1,092,650
Other income	733,319	418,849
TOTAL REVENUES	12,738,223	11,111,818
EXPENDITURES		
Operating and Capital Expenditures		
Research	3,385,902	3,060,955
Training	1,099,909	1,187,743
Information	651,055	598,738
Collaborative	128,327	160,716
Others	643,731	504,695
Administrative	5,161,600	4,941,639
TOTAL EXPENDITURES	11,070,524	10,454,486
SURPLUS (DEFICIT), For the year	1,667,699	657,332
FUND BALANCE, Beginning of year	10,579,181	10,002,772
FUND ADJUSTMENT	(9,726)	3,501
FUND BALANCE, End of year	12,237,154	10,663,605
REPRESENTED BY:		
ASSETS		
Current assets		
Cash and cash equivalents	13,199,838	11,518,615
Receivables and other receivables	374,246	234,229
Advances and deposits	21,067	52,579
Materials and supplies inventory	40,503	40,493
Fuel oil for vessels	149,390	222,266
Prepayments	4,045	14,154
Other current assets	1,852	1,840
Total Current assets	13,790,941	12,084,176
Noncurrent assets		
Reserved budget for vessel periodic maintenance	238,680	169,686
Termination indemnity fund	2,388,245	2,333,761
Long-term investments	273,933	271,805
Other noncurrent assets	279,292	266,056
Total noncurrent assets	3,180,150	3,041,308
TOTAL ASSETS	16,971,091	15,125,484
LESS: LIABILITIES		
Accrued payable	724,593	886,439
Contribution received in advance	1,352,868	982,920
Fund held in trust	268,231	258,759
Total Current Liabilities	2,345,692	2,128,118
Provision for termination indemnity	2,388,245	2,333,761
TOTAL LIABILITIES	4,733,937	4,461,879
NET ASSETS	12,237,154	10,663,605

■ The difference of US\$ 84,424 (US\$ 10,579,181 – US\$ 10,663,605) resulted from the change of rate in US\$ translation.

**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
SECRETARIAT
ABRIDGED FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2018 AND 2017**

	In US\$	
	2018	2017
REVENUES		
Contributions from :-		
Member governments	499,000	499,000
Other sources	56,002	94,485
Other income	(2,286)	(39,226)
TOTAL REVENUES	552,716	554,259
EXPENDITURES		
Operating and Capital Expenditures		
Training	3,331	1,609
Information	65,170	95,334
Collaborative	123,000	158,695
Others	17,175	-
Administrative	265,185	276,351
TOTAL EXPENDITURES	473,861	531,989
SURPLUS (DEFICIT), For the year	78,855	22,270
FUND BALANCE, Beginning of year	954,450 ^{1/}	924,815
FUND ADJUSTMENT	-	-
FUND BALANCE, End of year	1,033,305	947,085 ^{1/}
REPRESENTED BY :		
ASSETS		
Current assets		
Cash and cash equivalents	1,013,318	822,994
Other receivables	63,194	125,773
Advances and deposits	1,291	497
Supplies inventory	11,406	-
Prepayments	1,235	184
Total Current assets	1,090,444	949,448
Noncurrent assets		
Reserved budget for vessel periodic maintenance	238,680	169,686
Total noncurrent assets	238,680	169,686
TOTAL ASSETS	1,329,124	1,119,134
LESS: LIABILITIES		
Accrued payable	263,486	172,049
Contribution received in advance	32,333	-
TOTAL LIABILITIES	295,819	172,049
NET ASSETS	1,033,305	947,085

^{1/} The difference of US\$ 7,365 (US\$ 954,450 – US\$ 947,085) resulted from the change of rate in US\$ translation.

**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
TRAINING DEPARTMENT
ABRIDGED FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2018 AND 2017**

	In US\$	
	2018	2017
REVENUES		
Contributions from :-		
Member governments	3,166,348	3,012,747
Other sources	1,448,090	699,519
Other income	179,977	(59,413)
TOTAL REVENUES	4,794,415	3,652,853
EXPENDITURES		
Operating and Capital Expenditures		
Research	250,780	252,817
Training	943,150	1,072,228
Information	225,518	184,884
Collaborative	5,327	2,021
Others	626,556	504,695
Administrative	1,836,937	1,424,840
TOTAL EXPENDITURES	3,888,268	3,441,485
SURPLUS (DEFICIT), For the year	906,147	211,368
FUND BALANCE, Beginning of year	6,893,148 ^{1/}	6,628,592
FUND ADJUSTMENT	-	-
FUND BALANCE, End of year	7,799,295	6,839,960 ^{1/}
REPRESENTED BY :		
ASSETS		
Current assets		
Cash and cash equivalents	8,983,032	7,619,016
Other receivables	13,050	40,971
Advances and deposits	19,776	7,682
Supplies inventory	13,020	15,844
Fuel oil for vessels	146,536	222,266
Prepayments	2,810	13,970
Total Current assets	9,178,224	7,919,749
Noncurrent assets		
Termination indemnity fund	2,388,245	2,333,761
Total noncurrent assets	2,388,245	2,333,761
TOTAL ASSETS	11,566,469	10,253,510
LESS: LIABILITIES		
Accrued payable	58,394	96,869
Contribution received in advance	1,320,535	982,920
Total Current Liabilities	1,378,929	1,079,789
Provision for termination indemnity	2,388,245	2,333,761
TOTAL LIABILITIES	3,767,174	3,413,550
NET ASSETS	7,799,295	6,839,960

^{1/} The difference of US\$ 53,188 (US\$ 6,893,148 – US\$ 6,839,960) resulted from the change of rate in US\$ translation.

**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
AQUACULTURE DEPARTMENT
ABRIDGED FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2018 AND 2017**

	In US\$	
	2018	2017
REVENUES		
Contributions from :-		
Member governments	4,754,660	4,406,169
Other sources	290,477	298,646
Other income	555,628	517,488
TOTAL REVENUES	5,600,765	5,222,303
EXPENDITURES		
Operating and Capital Expenditures		
Research	2,864,828	2,668,821
Training	153,428	113,906
Information	360,367	318,520
Administrative	1,539,445	1,697,362
TOTAL EXPENDITURES	4,918,068	4,798,609
SURPLUS (DEFICIT), For the year	682,697	423,694
FUND BALANCE, Beginning of year	2,731,583	2,449,365
FUND ADJUSTMENT	(9,726)	3,501
FUND BALANCE, End of year	3,404,554	2,876,560
REPRESENTED BY :		
ASSETS		
Current assets		
Cash and cash equivalents	3,203,488	3,076,605
Other receivables	298,002	67,485
Advances and deposits	-	44,400
Materials and supplies inventory	16,077	24,649
Fuel oil for vessels	2,854	-
Other current assets	1,852	1,840
Total Current assets	3,522,273	3,214,979
Noncurrent assets		
Long-term investments	273,933	271,805
Other noncurrent assets	279,292	266,056
Total noncurrent assets	553,225	537,861
TOTAL ASSETS	4,075,498	3,752,840
LESS: LIABILITIES		
Accounts and other payables	402,713	617,521
Funds held in trust	268,231	258,759
TOTAL LIABILITIES	670,944	867,280
NET ASSETS	3,404,554	2,876,560

^{1/} The difference of US\$ 144,977 (US\$ 2,731,583 – US\$ 2,876,560) resulted from the change of rate in US\$ translation.

**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
MARINE FISHERY RESOURCES DEVELOPMENT AND MANAGEMENT DEPARTMENT
ABRIDGED FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2018 AND 2017**

	In US\$	
	2018	2017
REVENUES		
Contributions from :-		
Member governments	800,868	804,771
Other income	-	-
TOTAL REVENUES	800,868	804,771
EXPENDITURES		
Operating and Capital Expenditures		
Administrative	800,868	804,771
TOTAL EXPENDITURES	800,868	804,771
SURPLUS (DEFICIT), For the year	-	-
FUND BALANCE, Beginning of year	-	-
FUND ADJUSTMENT	-	-
FUND BALANCE, End of year	-	-
REPRESENTED BY :		
ASSETS		
Current assets		
Cash and cash equivalents	-	-
Other receivables	-	-
Advances and deposits	-	-
Prepayments	-	-
Total Current assets	-	-
TOTAL ASSETS	-	-
LESS: LIABILITIES		
Accrued payable	-	-
TOTAL LIABILITIES	-	-
NET ASSETS	-	-

**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
INLAND FISHERY RESOURCES DEVELOPMENT AND MANAGEMENT DEPARTMENT
ABRIDGED FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2018 AND 2017**

	In US\$	
	2018	2017
REVENUES		
Contributions from :-		
Member governments	989,459	877,632
Other income	-	-
TOTAL REVENUES	989,459	877,632
EXPENDITURES		
Operating and Capital Expenditures		
Research	270,294	139,317
Administrative	719,165	738,315
TOTAL EXPENDITURES	989,459	877,632
SURPLUS (DEFICIT), For the year	-	-
FUND BALANCE, Beginning of year	-	-
FUND ADJUSTMENT	-	-
FUND BALANCE, End of year	-	-
REPRESENTED BY :		
ASSETS		
Current assets		
Cash and cash equivalents	-	-
Other receivables	-	-
Advances and deposits	-	-
Prepayments	-	-
Total Current assets	-	-
TOTAL ASSETS	-	-
LESS: LIABILITIES		
Accrued payable	-	-
TOTAL LIABILITIES	-	-
NET ASSETS	-	-

UN-AUDITED CONSOLIDATED FINANCIAL REPORT FOR THE YEAR 2019

SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
CONSOLIDATED STATEMENTS OF NET ASSETS
FOR THE YEAR ENDED DECEMBER 31, 2019 AND 2018
(IN US\$)

	2019 (Un-audited)	2018 (Audited)
ACCUMULATED FUND		
As at December 31	15,115,521	12,237,154
REPRESENTED BY:		
Current assets		
Cash in hand and at banks	15,942,569	13,199,838
Other receivables and Advances	390,836	395,313
Supplies inventory	31,957	40,503
Fuel for vessels	215,362	149,390
Prepayments	8,864	5,897
Total Current assets	16,589,588	13,790,941
Reserved budget for vessel periodic maintenance	231,642	238,680
Termination indemnity fund	2,521,454	2,388,245
Other assets	557,084	553,225
Total Other assets	3,310,180	3,180,150
Total Assets	19,899,768	16,971,091
Less: Liabilities		
Accrued payable	583,728	724,593
Contribution received in advance	1,419,906	1,352,868
Fund held in trust	259,159	268,231
Provision for staff termination indemnity	2,521,454	2,388,245
Total Liabilities	4,784,247	4,733,937
TOTAL NET ASSETS	15,115,521	12,237,154

**CONSOLIDATED STATEMENTS OF CONTRIBUTIONS AND EXPENDITURES
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018**

	(IN US\$)					Total
	Operating Fund					
	Host Department	MRC	Fellowship Fund	Others Fund	2019 (Un-audited)	
CONTRIBUTIONS						
Contributions from :-						
Government of Brunei Darussalam	-	7,000	-	-	7,000	7,000
Government of Cambodia	-	12,000	-	-	12,000	12,000
Government of Indonesia	588,825	52,000	-	-	640,825	1,041,459
Government of Japan	-	280,000	-	-	280,000	280,000
Government of Lao PDR	-	6,500	-	-	6,500	6,500
Government of Malaysia	810,462	21,500	-	-	831,962	822,368
Government of Myanmar	-	22,500	-	-	22,500	22,500
Government of Philippines	5,431,026	25,000	-	-	5,456,026	4,779,660
Government of Singapore	-	13,500	-	-	13,500	13,500
Government of Thailand	3,523,946	33,000	25,819	-	3,582,765	3,199,348
Government of Viet Nam	-	26,000	-	-	26,000	26,000
Sub-total	10,354,259	499,000	25,819	-	10,879,078	10,210,335
Other sources/grants	-	-	-	2,262,270	2,262,270	1,794,569
Other income	725,221	(41,194)	1,454	(81,722)	603,759	733,319
TOTAL CONTRIBUTIONS	11,079,480	457,806	27,273	2,180,548	13,745,107	12,738,223

**CONSOLIDATED STATEMENTS OF CONTRIBUTIONS AND EXPENDITURES
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018**

	(IN US\$)					Total
	Operating Fund					
	Host Department	MRC	Fellowship Fund	Others Fund	2019 (Un-audited)	2018 (Audited)
EXPENDITURES						
Operating Expenditures						
Program of Activities						
Research	3,311,405	-	-	324,688	3,636,093	3,385,902
Training	854,605	481	32,195	773,888	1,661,169	1,099,909
Information	436,031	66,555	-	161,608	664,194	651,055
Collaborative	23,696	175,395	-	-	199,091	128,327
Others	-	29,927	-	694,897	724,824	643,731
	4,625,737	272,358	32,195	1,955,081	6,885,371	5,908,924
Administrative & Capital expenditures	4,135,212	203,421	-	430,610	4,769,243	5,161,600
TOTAL EXPENDITURES	8,760,949	475,779	32,195	2,385,691	11,654,614	11,070,524
SURPLUS (DEFICIT) FOR THE YEAR	2,318,531	(17,973)	(4,922)	(205,143)	2,090,493	1,667,699



**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
CONSOLIDATED STATEMENTS OF FUND BALANCES
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(IN US\$)**

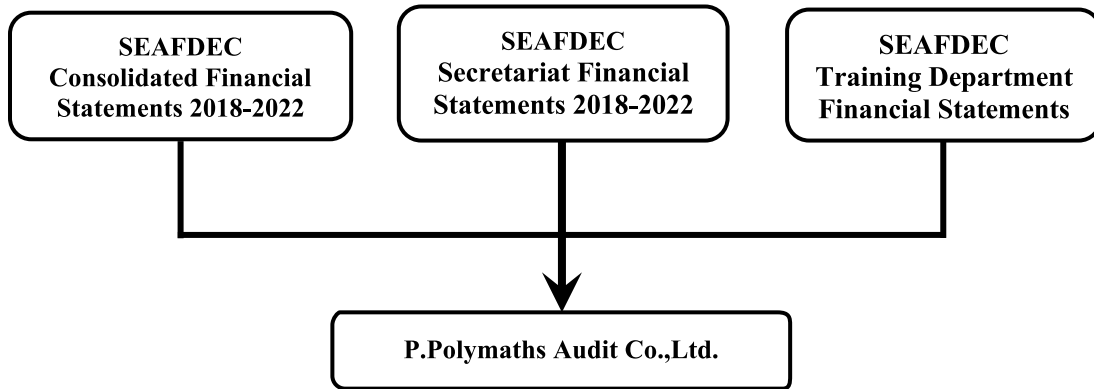
	<u>Balance as at January 1, 2019</u>	<u>Adjustment of Fund</u>	<u>Surplus (Deficit)</u>	<u>Balance as at December 31, 2019 (Un-audited)</u>	<u>Balance as at December 31, 2018 (Audited)</u>
Operating fund	10,254,708	(7,312)	2,300,558	12,547,954	9,646,590
Fellowship fund	280,807	-	(4,922)	275,885	261,154
Other funds	2,496,759	66	(205,143)	2,291,682	2,329,410
Net	<u><u>13,032,274</u></u>	<u><u>(7,246)</u></u>	<u><u>2,090,493</u></u>	<u><u>15,115,521</u></u>	<u><u>12,237,154</u></u>
					<u>1/</u>

Remark: 1/ The difference of US\$ 795,120 (US\$ 13,032,274 – US\$ 12,237,154) resulted from the change of rate in US\$ translation

**Contribution received from SEAFDEC Member Countries
as Annual Minimum Regular Contribution (MRC) in 2015 – 2020
(In US\$)**

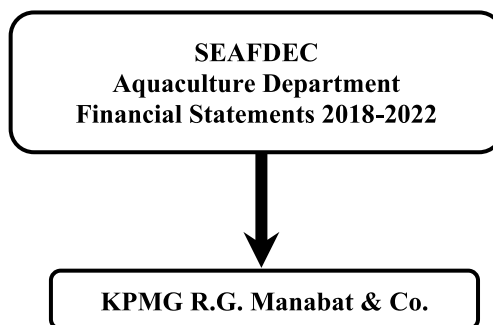
Countries	Actual received in 2015	Actual received in 2016	Actual received in 2017	Actual received in 2018	Actual received in 2019	Amount received in 2020 as at 28 Feb. 2020
Brunei Darussalam	7,000	7,000	7,000	7,000	7,000	-
Cambodia	11,000	11,000	12,000	12,000	12,000	-
Indonesia	52,000	52,000	52,000	52,000	52,000	-
Japan	280,000	280,000	280,000	280,000	280,000	280,000
Lao PDR	5,000	5,000	6,500	6,500	6,500	-
Malaysia	21,000	21,000	21,500	21,500	21,500	-
Myanmar	21,000	21,000	22,500	22,500	22,500	-
Philippines	25,000	25,000	25,000	25,000	25,000	-
Singapore	13,000	13,000	13,500	13,500	13,500	13,500
Thailand	33,000	33,000	33,000	33,000	33,000	33,000
Viet Nam	26,000	26,000	26,000	26,000	26,000	-
Total	494,000	494,000	499,000	499,000	499,000	326,500

CONTACT PERSON AND EXTERNAL AUDIT FIRM



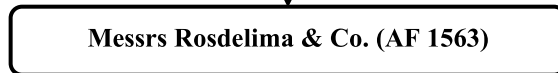
Auditor name : Mr. Pongsakorn Suwansaksin
Address : 33/6 Moo 14 Bangna-Trad Road,
Bangkaew Sub-District, Bangplee District,
Samuth Prakarn 10540, Thailand
Telephone : (662) 745-0316
Mobile : (661) 9499-4994
Email : Pong.audit57@gmail.com

CONTACT PERSON AND EXTERNAL AUDIT FIRM



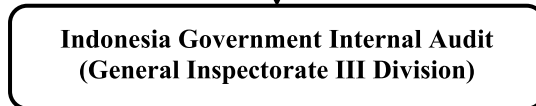
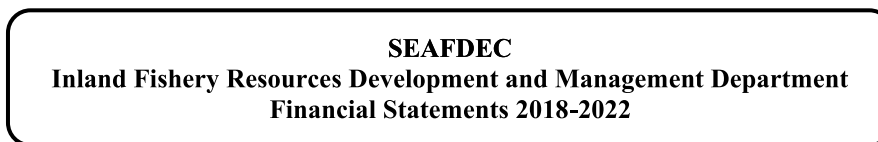
Auditor name : Mr. Orvil Deroja
Address : The KPMG Center, 9/F,
6787 Ayala Avenue, Makati City,
Philippines 1226
Telephone : (632) 855-7000
Fax : (632) 894-1985
Email : oderoja@kpmg.com

CONTACT PERSON AND EXTERNAL AUDIT FIRM



Auditor name : Mrs. Rosdelima Binti Mohd Ali Jaafar
Address : No. 68-3, Suite 1, Blok H,
Platinum Walk Danau Kota, Jalan Langkawi,
53300 Kuala Lumpur, Malaysia
Telephone : 03-4143-2725

CONTACT PERSON AND EXTERNAL AUDIT FIRM



Auditor name : Mr. Ir. Jayen C. Purewanto, MM
Address : Gd. Mina Bahari III Lt. 4-6
Ministry of Marine Affairs and Fisheries
JI Medan Merdeka Timur No. 16,
Jakarta 10110, Indonesia

PROPOSED BUDGETARY REQUIREMENTS OF THE CENTER FOR THE YEAR 2020

Table 1: Estimated Contributions received by SEAFDEC from Member Countries and other sources (In US\$) in Fiscal Year 2020

Sources	Secretariat	TD	MFRD	AQD	MFRDMD	IFRDMD	Total	%
Brunei Darussalam	7,000	-	-	-	-	-	7,000	0.05
Cambodia	12,000	-	-	-	-	-	12,000	0.07
Indonesia	52,000	-	-	-	-	905,082 h/	957,082	5.72
Japan	280,000	-	-	-	-	-	280,000	1.67
Lao PDR	6,500	-	-	-	-	-	6,500	0.04
Malaysia	21,500	-	-	-	2,188,025 g/	-	2,209,525	13.18
Myanmar	22,500	-	-	-	-	-	22,500	0.13
Philippines	25,000	-	-	5,515,405 f/	-	-	5,540,405	33.05
Singapore	13,500	-	-	-	-	-	13,500	0.08
Thailand	33,000	-	-	-	-	-	3,024,400	18.04
Viet Nam	27,000	-	-	-	-	-	27,000	0.16
Sub-total	500,000	2,991,400	-	5,515,405	2,188,025	905,082	12,099,912	72.19
Others	1,873,357 b/	1,920,930 c/	-	867,596 i/	-	-	4,661,883	27.81
Total	2,373,357 a/	4,912,330	-	6,383,001	2,188,025	905,082	16,761,795	100.00

Remarks:

a/ Includes Minimum Regular Contribution (MRC) from all SEAFDEC Member Countries = US\$ 500,000

b/ Includes extra-budgetary sources from Japanese Trust Fund = US\$ 1,550,357

(Excluding MRC = US\$ 280,000), Japan-ASEAN Integration Fund (JAIF) = US\$ 323,000

c/ Includes extra-budgetary sources from UNEP/GEF = US\$ 1,800,430 and Others = US\$ 120,500

d/ Contribution in cash from Thailand

e/ No Contribution from Singapore

f/ Contributions in cash from Philippines

g/ Contributions in kind from Malaysia

h/ Contributions in kind from Indonesia

i/ Includes Contributions from non-member governments, international agencies/agencies and miscellaneous receipts.

Table 2: Estimated Expenditures of the Center for 2020 (In US\$)

Category	SEC ^{1/}	TD ^{2/}	MFRD ^{3/}	AQD ^{4/}	MFRDMD ^{5/}	IFRMDMD ^{6/}	Total	%
1. Program of Activities								
1.1 Research Programs	-	342,300	-	3,126,638	-	302,550	3,771,488	22.50
1.2 Training Programs	5,000	1,435,100	-	605,821	-	-	2,045,921	12.20
1.3 Information Programs	86,000	38,000	-	846,137	-	-	970,137	5.79
1.4 Collaborative Programs	150,000	60,600	-	-	-	-	210,600	1.26
1.5 Other Programs	1,936,357	1,920,930	-	341,181	-	-	4,198,468	25.05
Sub-total	2,177,357	3,796,930	-	4,919,777	-	302,550	11,196,614	66.80
2. Administrative and Non- Program Expenditures								
2.1 Operating Expenditures	188,500	1,115,400	-	1,283,111	-	-	2,587,011	15.43
2.2 Capital Expenditures	7,500	-	-	180,113	-	-	187,613	1.12
2.3 In-kind Expenditures	196,000	1,115,400	-	1,463,224	-	-	2,774,624	16.55
Sub-total	196,000	1,115,400	-	1,463,224	2,188,025	602,532	5,565,181	33.20
Total	2,373,357	4,912,330	-	6,383,001	2,188,025	905,082	16,761,795	100.00

Remarks:

- 1/ Secretariat
2/ Training Department: The Program of Activities already includes administrative and others expenses which are directly related to the programs.
3/ Marine Fisheries Research Department.
4/ Aquaculture Department: The Program of Activities already includes administrative and other expenses which are directly related to the programs.
5/ Marine Fishery Resources Development and Management Department.
6/ Inland Fishery Resources Development and Management Department.
7/ Includes operation cost, maintenance, insurance, and expenses for vessel periodic maintenance of the M.V. SEAFDEC 2.
8/ Includes program expenses from Japanese Trust Fund = US\$ 1,550,357, Japan-ASEAN Integration Fund = US\$ 323,000 and Other Programs from MRC Fund = US\$ 63,000.
9/ Includes program expenses from UNEP/GEF = US\$ 1,800,430 and Others = US\$ 120,500.
10/ Includes program expenses from non-member governments, international/regional/national organizations and other agencies.

Table: 3 Expected Contributions received by SEAFDEC from Member Countries and other sources (In US\$) in fiscal year 2021

Sources	Secretariat	TD	MFRD	AQD	MFRDMD	IFRDMD	Total	%
Brunei Darussalam	7,000	-	-	-	-	-	7,000	0.04
Cambodia	12,000	-	-	-	-	-	12,000	0.06
Indonesia	52,000	-	-	-	-	995,590	1,047,590	6.01
Japan	280,000	-	-	-	-	-	280,000	1.61
Lao PDR	6,500	-	-	-	-	-	6,500	0.04
Malaysia	21,500	-	-	-	2,251,754	-	2,273,254	13.06
Myanmar	22,500	-	-	-	-	-	22,500	0.13
Philippines	25,000	-	-	6,122,247	-	-	6,147,247	35.33
Singapore	13,500	-	-	-	-	-	13,500	0.08
Thailand	33,000	2,878,200	-	-	-	-	2,911,200	16.73
Viet Nam	27,000	-	-	-	-	-	27,000	0.16
Sub-total	500,000	2,878,200	-	6,122,247	2,251,754	995,590	12,747,791	73.25
Others	1,866,251	1,949,190	-	839,637	-	-	4,655,078	26.75
Total	2,366,251	4,827,390	-	6,961,884	2,251,754	995,590	17,402,869	100

- Remarks:**
- a/ Includes Minimum Regular Contribution (MRC) from all SEAFDEC Member Countries = US\$ 500,000.
 - b/ Includes extra-budgetary sources from Japanese Trust Fund = US\$ 1,550,357 (Excluding MRC = US\$ 280,000. and Japan ASEAN Integration Fund (JAIF) = US\$ 315,894.
 - c/ Includes extra-budgetary sources from UNEP/GEF = US\$ 1,949,190.
 - d/ Contributions in cash from Thailand.
 - e/ No Contributions from Singapore.
 - f/ Contributions in cash from Philippines.
 - g/ Contribution in kind from Malaysia.
 - h/ Contributions in kind from Indonesia.
 - i/ Includes contributions from non-member governments, international organizations/agencies and miscellaneous receipts.

Table 4: Proposed Expenditures of the Center for 2021 (In US\$)

Category	SEC ^{1/}	TD ^{2/}	MFRD ^{3/}	AQD ^{4/}	MFRDMD ^{5/}	IFRMDM ^{6/}	Total	%
1. Program of Activities								
1.1 Research Programs	-	358,000	-	3,392,116	-	332,805	4,082,921	23.46
1.2 Training Programs	5,000	1,282,400	-	647,475	-	-	1,934,875	11.12
1.3 Information Programs	86,000	38,000	-	916,305	-	-	1,040,305	5.98
1.4 Collaborative Programs	150,000	75,000	-	-	-	-	225,000	1.29
1.5 Other Programs	1,929,251	1,949,190	-	399,725	-	-	4,278,166	24.58
Sub-total	2,170,251	3,702,590	-	5,355,621	-	332,805	11,561,267	66.43
2. Administrative and Non-Program Expenditures								
2.1 Operating Expenditures	188,500	1,124,800	-	1,314,643	-	-	2,627,943	15.10
2.2 Capital Expenditures	7,500	-	-	291,620	-	-	299,120	1.72
2.3 In-kind Expenditures	196,000	1,124,800	-	1,606,263	-	-	2,927,063	16.82
Sub-total	196,000	1,124,800	-	1,606,263	2,251,754	662,785	2,914,539	16.75
Total	2,366,251	4,827,390	-	6,961,884	2,251,754	995,590	17,402,869	100

Remarks:

- 1/ Secretariat
- 2/ Training Department: The Program of Activities already includes administrative and others expenses which are directly related to the programs.
- 3/ Marine Fisheries Research Department.
- 4/ Aquaculture Department: The Program of Activities already includes administrative and other expenses which are directly related to the programs.
- 5/ Marine Fishery Resources Development and Management Department.
- 6/ Inland Fishery Resources Development and Management Department.
- 7/ Includes operation cost, maintenance, insurance, and expenses for vessel periodic maintenance of the M.V. SEAFDEC 2.
- 8/ Includes program expenses from Japanese Trust Fund = US\$ 1,550,357, Japan-ASEAN Integration Fund = US\$ 315,894 and Other Programs from MRC Fund = US\$ 63,000.
- 9/ Includes program expenses from UNEP/GEF = US\$ 1,949,190
- 10/ Includes program expenses from non-member governments, international/regional/national organizations and other agencies.