

**REPORT OF  
THE FIRST REGIONAL TECHNICAL CONSULTATION ON FISHERY STATISTICS AND  
INFORMATION IN SOUTHEAST ASIA**

**Online Meeting  
21-22 September 2021**



**THE SECRETARIAT  
SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER**



## **PREPARATION AND DISTRIBUTION OF THIS DOCUMENT**

Report of the First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia was prepared by the Secretariat of the Southeast Asian Fisheries Development Center (SEAFDEC). The document is distributed to the participants from the SEAFDEC Member Countries, SEAFDEC Departments and concerned institutions.

## **BIBLIOGRAPHIC CITATION**

SEAFDEC. 2022. Report of the First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia. Southeast Asian Fisheries Development Center, Bangkok, Thailand. 147 pp

### **Notice of Copyright**

Reference to this publication could be made provided that the publication is properly cited.

Electronic copy of this publication is also available at the SEAFDEC Institutional Repository (SIR), accessible through <http://repository.seafdec.org>. E-copy of the publication may be shared only for non-commercial purposes. However, public access to the e-copy of the publication could be made only through the publication URL in the SIR; and not through other domain without permission in writing from SEAFDEC.

SEAFDEC Secretariat  
Suraswadi Building  
Kasetsart University Campus  
P.O. Box 1046, Kasetsart Post Office  
Bangkok 10903, Thailand  
E-mail: [secretariat@seafdec.org](mailto:secretariat@seafdec.org)

All rights reserved  
©SEAFDEC 2022

## CONTENTS

	Paragraph No.
INTRODUCTION	1
I. OPENING OF THE CONSULTATION	2
II. BACKGROUND, OBJECTIVES, AND ARRANGEMENTS OF THE CONSULTATION	3
III. INTRODUCTION ON REVISION OF THE REGIONAL FRAMEWORK OF FISHERY STATISTICS OF SOUTHEAST ASIA	4
IV. COUNTRY PRESENTATIONS	5
V. NEW AND UPDATED GLOBAL FRAMEWORKS RELATED TO FISHERY STATISTICS	6-8
VI. DISCUSSION	
6.1 Revision of the “Regional Framework for Fishery Statistics of Southeast Asia” and “Explanatory Notes of the Fishery Statistical Bulletin of Southeast Asia” (general parts)	9-10
6.2 Regional Compilation of Fish Processing Statistics	11-12
6.3 Regional Compilation of Fish Trade Statistics	13-15
VII. CONCLUSION AND RECOMMENDATIONS	16-19
VIII. CLOSING OF THE CONSULTATION	20

## ANNEXES

	Page
1. List of Participants	5
2. Opening Remarks by <i>Mr. Koichi Honda</i> , SEAFDEC Deputy Secretary-General	11
3. Agenda	13
4. Revision of Regional Framework for Fishery Statistics of Southeast Asia	17
5. Country Presentation: Brunei Darussalam	19
6. Country Presentation: Cambodia	21
7. Country Presentation: Indonesia	25
8. Country Presentation: Malaysia	29
9. Country Presentation: Myanmar	31
10. Country Presentation: Philippines	35
11. Country Presentation: Singapore	39
12. Country Presentation: Thailand	41
13. Country Presentation: Viet Nam	45
14. New and Updated Global Frameworks Related to Fishery Statistics	47
15. FAO Presentation: New and Updated Global Frameworks Related to Fishery Statistics	79
16. Revision of the “Regional Framework for Fishery Statistics of Southeast Asia” and “Explanatory Notes of the Fishery Statistical Bulletin of Southeast Asia” (general parts)	89
17. Revision of the “Regional Framework for Fishery Statistics of Southeast Asia” and “Explanatory Notes of the Fishery Statistical Bulletin of Southeast Asia” (general parts) ( <i>as agreed at the 1<sup>st</sup> RTC in 2021</i> )	101
18. Regional Compilation of Fish Processing Statistics	111
19. Availability of Data on Number of Fish Processing Establishments by Commodity and Production by Commodities	115
20. Regional Compilation of Fish Processing Statistics ( <i>as agreed at the 1<sup>st</sup> RTC in 2021</i> )	117
21. Regional Compilation of Fish Trade Statistics	119
22. List of Fishery Commodities for Export Statistics (top 15 commodities)	125
23. Regional Compilation of Fish Trade Statistics ( <i>As agreed at the 1<sup>st</sup> RTC in 2021</i> )	133
24. Closing Remarks by <i>Mr. Koichi Honda</i> , SEAFDEC Deputy Secretary-General	141



## REPORT OF THE FIRST REGIONAL TECHNICAL CONSULTATION ON FISHERY STATISTICS AND INFORMATION IN SOUTHEAST ASIA

21–22 September 2021, Online Meeting

\*\*\*\*\*

### INTRODUCTION

1. The “First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia” was organized through the online platform from 21 to 22 September 2021. The Consultation was attended by members of the ASEAN Network on Fishery Statistics and/or representatives from the ASEAN Member States (AMSs), namely: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. The Consultation was also attended by a representative from the Food and Agriculture Organization of the United Nations (FAO), the SEAFDEC Secretary-General, Deputy Secretary-General, senior officials of the SEAFDEC Secretariat, and staff of the SEAFDEC Secretariat and Departments, namely: TD, AQD, MFRDMD, and IFRDMD working on fisheries data/information collection and utilization. The List of Participants appears as **Annex 1**.

#### I. OPENING OF THE CONSULTATION

2. The SEAFDEC Deputy Secretary-General *Mr. Koichi Honda* welcomed the participants to the Meeting. He reiterated that this Consultation is the first in a series of Consultations to be organized by SEAFDEC with the aim of revising the “Regional Framework for Fishery Statistics of Southeast Asia.” He recalled that the Regional Framework for Fishery Statistics of Southeast Asia, which was developed more than a decade ago, has served as basis for SEAFDEC in compiling the fishery statistics from the AMSs and annual publication of the “Fishery Statistical Bulletin of Southeast Asia.” He also mentioned that since FAO has recently facilitated the development of new statistics standards, definitions, and classifications at the global level, it is therefore necessary for SEAFDEC and the AMSs to harmonize the Regional Framework with such new development accordingly. Although this Consultation is being organized online due to the COVID-19 situation, he encouraged the participants to share their views and suggestions in order that a clear direction in improving the Regional Framework would be achieved. He then declared the Consultation open. His Opening Remarks appears in **Annex 2**.

#### II. BACKGROUND , OBJECTIVES, AND ARRANGEMENTS OF THE CONSULTATION

3. The Consultation took note of the Background, Objectives, and Arrangements of the Consultation as presented by the SEAFDEC Secretariat. The Prospectus including the Agenda of the Consultation appears in **Annex 3**.

#### III. INTRODUCTION ON REVISION OF THE REGIONAL FRAMEWORK OF FISHERY STATISTICS OF SOUTHEAST ASIA

4. In the presentation made by the Senior Information Officer of SEAFDEC Secretariat, *Ms. Saivason Klinsukhon* on the “Revision of the Regional Statistics Framework for Fishery Statistics of Southeast Asia,” which focused on the proposed revision of the Regional Framework as well as on the workplan and timeframe of the revision of the Regional Framework, she also indicated that additional statistics on fish processing and fish trade would be included in the future issues of the Statistical Bulletin. Her presentation appears as **Annex 4**.

#### IV. COUNTRY PRESENTATIONS

5. The Consultation took note of the presentations (**Annexes 5–13**) made by the representatives from the ASEAN Member States (AMSs), namely: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. The presentations of the respective countries include the statistics on fisheries and aquaculture production during 2015–2020, progress and issues on their respective national fishery statistics systems and submission of statistics to SEAFDEC, and fish processing and fish trade statistics in 2015–2020.



## V. NEW AND UPDATED GLOBAL FRAMEWORKS RELATED TO FISHERY STATISTICS

6. The Consultation took note of the presentation made by the Senior Fisheries Officer (Statistics) of FAO, *Ms. Stefania Vannuccini* on the new and updated global frameworks related to fishery statistics (**Annex 14-15**). She described the current global status and statistics of fisheries with emphasis on the critical role of statistics and main issues on data collection. Her presentation also highlighted the objectives and works of the Coordinating Working Party on Fishery Statistics (CWP) particularly the development and compilation of the “CWP Handbook on Fishery Statistical Standards,” with an improved online version which would be available soon. She also presented the other important efforts of the CWP, which include the revision of the International Standard Statistical Classification of Aquatic Animals and Plants (ISSCAAP), preliminary categorization of aquaculture farming methods, endorsement of the revised International Standard Classification of Fishing Vessels (ISSCFV), and establishment of five Task Groups as the intersessional work of CWP. She also underscored that new and effective ways of collecting data, monitoring targets, and measuring progress are significant factors in the success of the SDGs, and FAO as the custodian of four SDG indicators under Goal 14 has been developing different capacity building activities to support countries in particular for indicator 14.4.1.

7. During the discussion, *Ms. Stefania Vannuccini* also informed the Consultation about the activities of the FAO Fisheries and Aquaculture Division in relation to the celebration of the International Year of Artisanal Fisheries and Aquaculture in 2022 (IYAFA 2022), including in addressing the issues on insufficient data and information on small-scale fisheries. She added that FAO has been collaborating with WorldFish and Duke University for the conduct of the study “Illuminating Hidden Harvests” which assesses the contributions, impacts, and drivers of small-scale fisheries globally, and explores deeper into the policy-making processes and empowerment of fishing communities, and that the study will be published in 2022.

8. In response to the query whether there are countries that adopt the bottom-top method of data collection (*e.g.* fishers report their catch to the government on a daily basis), *Ms. Vannuccini* mentioned that fishers in some countries are using electronic gadgets, including tablets, computers and smartphone apps to report capture fishery data by species also on a daily basis as well as some countries are adopting other technologies including vessel monitoring system (VMS). However, she also mentioned that the adoption of such modern technologies is still rather limited. Providing additional information, the representative from SEAFDEC indicated that SEAFDEC has been promoting the community-based fisheries management as means of improving data collection from small-scale and inland fisheries.

## VI. DISCUSSION

### 6.1 Revision of the “Regional Framework for Fishery Statistics of Southeast Asia” and “Explanatory Notes of the Fishery Statistical Bulletin of Southeast Asia” (general parts)

9. The Consultation took note of the proposed revision of the general parts of the “Regional Framework for Fishery Statistics of Southeast Asia” and “Explanatory Notes of the Fishery Statistical Bulletin of Southeast Asia” (**Annex 16**) as presented by *Ms. Saivason Klinsukhon*.

10. After the discussion, the Consultation agreed with the revised parts of the Regional Framework for Fishery Statistics of Southeast Asia and Explanatory Notes of the Fishery Statistical Bulletin of Southeast Asia (**Annex 17**) which include the use of exchange rate of the International Monetary Fund (IMF) for the conversion of national currencies to USD, and the changes in geographical marine sub-areas of Brunei Darussalam, Malaysia, and Myanmar. The concerned countries were therefore requested to provide their respective maps indicating the new marine sub-areas to the SEAFDEC Secretariat.

### 6.2 Regional Compilation of Fish Processing Statistics

11. The Consultation noted the proposed inclusion of fish processing statistics in the Fishery Statistical Bulletin (**Annex 18**) as presented by *Ms. Saivason Klinsukhon*, and acknowledged the information shared by the AMSs on the availability of their respective data on the number of processing establishments and volume of production by processed commodities (**Annex 19**).



12. After the discussion, the Consultation agreed to the corresponding revised text to be incorporated in the Regional Framework, and the Table to be used for compiling the statistics on fish processing (**Annex 20**) from the AMSs in the future.

### **6.3 Regional Compilation of Fish Trade Statistics**

13. After noting the proposed compilation of the fish trade statistics in the Fishery Statistical Bulletin of Southeast Asia (**Annex 21**) as presented by *Ms. Saivason Klinasukhon*, the respective AMSs provided information on their top 15 exported and imported commodities (**Annex 22**). Considering that the AMSs have different priority commodities for trade, each AMS should be able to report their respective priority commodities instead of reporting the regional common commodities.

14. After the discussion, the Consultation agreed to the corresponding revised text to be incorporated in the Regional Framework, and the Tables to be used for compiling the statistics on fish trade (**Annex 23**).

15. With regard to the table on “Exports by Commodities” and “Imports by Commodities,” the Consultation was informed that FAO is currently compiling the statistics from countries using the “Form for reporting statistics on international trade of fishery and aquaculture commodities (FISHSTAT-FTR).” In this connection, the AMSs asked SEAFDEC to communicate with FAO to share the data of the countries that provided the required statistics to FAO.

## **VII. CONCLUSION AND RECOMMENDATIONS**

16. After noting that this is the first in the series of Consultations aimed at harmonizing the Regional Framework, this Consultation acknowledged that subsequent consultations would be organized in the following years to address other issues relevant to revision of the Regional Framework, and that the revised Regional Framework would be submitted to the SEAFDEC Council for approval.

17. Moreover, after this Consultation, the AMSs are requested to try filling up the Tables using the data available in their respective countries, and if problems are encountered, this could be raised during the next Consultation for further discussion.

18. The Consultation also raised the following specific recommendations for improving the Regional Framework which would be discussed during the future Consultations:

- Updating of the definition of terms by the respective AMSs, *e.g.* small-scale fisheries (as suggested by Thailand)
- Categorization of fish workers and fish farmers as “national workers” and “foreign workers” (as suggested by SEAFDEC)
- Expansion of statistics on ornamental fishes to cover additional species, *e.g.* ornamental aquatic plants (as suggested by Malaysia)
- Categorization of inland fishing areas (04) by habitats (as suggested by Cambodia), but the availability of data from other concerned AMSs should be considered
- Inclusion of data on per capita fish consumption of the respective AMSs (as suggested by Cambodia)

19. With regard to updating the national focal persons on fishery statistics, SEAFDEC would send letters to Myanmar, Malaysia, and Philippines requesting their respective new nominations, while Brunei Darussalam, Indonesia, and Singapore would inform SEAFDEC on the name and contact details of their respective new national focal persons.

## **VIII. CLOSING OF THE CONSULTATION**

20. The SEAFDEC Deputy Secretary-General, *Mr. Koichi Honda*, expressed appreciation to all participants for sharing their views and recommendations during the discussion. He expressed the hope that revising the Regional Framework would contribute to the improvement of statistics not only for compilation by SEAFDEC at the regional level but also for the respective AMSs. Furthermore, he looked forward to having closer collaboration and cooperation between SEAFDEC and the AMSs throughout the series of



Consultations in the future. He then declared the Consultation closed. His Closing Remarks appears as **Annex 24**.

## LIST OF PARTICIPANTS

### Brunei Darussalam

**Noor Dafinah Haji Jelani (Mrs.)**  
Senior Fisheries Office  
Department of Fisheries, Brunei Darussalam

Department of Fisheries, Ministry of Primary Resources and Tourism  
Tel/Fax: +673 8181727  
E-mail: noordafinah.jelani@fisheries.gov.bn

**Nur Diyana Besar (Ms.)**  
Fisheries Officer  
Department of Fisheries, Brunei Darussalam

Muara Fisheries Complex, Spg 287-53, Jln Peranginan Pantai Serasa, Muara BT1728, Brunei Darussalam  
Tel/Fax: +673 277 0066  
E-mail: nurdiyana.besar@fisheries.gov.bn

### Cambodia

**Dr. Bunthang Touch**  
Deputy Director of Inland Fisheries Research and Development Institute

186 Preah Norodom Blvd., Sangkat Tonle Bassac, Khan Chamcar Mon, Phnom Penh Capital, Cambodia.  
Tel/Fax: +855 78 206 917  
E-mail: bunthangtouch@gmail.com

**Hem Rady**  
Chief of International Cooperation and Fishery Statistics Division of Department of Planning, Finance and International Cooperation

186 Preah Norodom Blvd., Sangkat Tonle Bassac, Khan Chamcar Mon, Phnom Penh Capital, Cambodia.  
Tel/Fax: +855 23 215 470  
E-mail: hemrady@yahoo.com

### Indonesia

**Hendri Kurniawan**  
Head of Sub Division for Regional Cooperation, Bureau of Public Relations and Foreign Cooperation

Ministry of Marine Affairs and Fisheries (MMAF)  
Mina Bahari 1 Building, Jl. Medan Merdeka Tim. No.16, Gambir  
Jakarta 10110, Indonesia  
Tel/ Fax: +62 21 3519070 ext. 7510  
E-mail: Hendrikur16@gmail.com

**Alza Rendian**  
Cooperation Analyst, Bureau of Public Relations and Foreign Cooperation

Ministry of Marine Affairs and Fisheries (MMAF)  
Mina Bahari 1 Building, Jl. Medan Merdeka Tim. No.16, Gambir  
Jakarta 10110, Indonesia  
Tel/ Fax: +62 21 3519070 ext. 7510  
E-mail: alzarendian@gmail.com

**Krisna Fery Rahmantya**  
Statistic Officer

Center for Data Statistic and Information, Ministry of Marine Affairs and Fisheries, Indonesia  
Mina Bahari Building II, 16th Floor, Jl Medan Merdeka Timur No 16, Central Jakarta, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: krisnafr@gmail.com

**Rennisca Ray Damanti (Ms.)**  
Fishery Statistic Officer

Center for Data Statistic and Information, Ministry of Marine Affairs and Fisheries, Indonesia  
Mina Bahari Building II, 16th Floor, Jl Medan Merdeka Timur No 16, Central Jakarta, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: rennisca@kkp.go.id



**Rosna Malika (Ms.)**

Statistic Officer

Center for Data Statistic and Information, Ministry of Marine Affairs and Fisheries, Indonesia  
Mina Bahari Building II, 16th Floor, Jl Medan Merdeka Timur No 16, Central Jakarta, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: alka.rosna@gmail.com

**Sitti Hamdiyah (Ms.)**

Coordinator for Regional and Multilateral Cooperation

Bureau of Public Relations and Foreign Cooperation, MMAF Indonesia  
Mina Bahari Building II, 16th Floor, Jl Medan Merdeka Timur No 16, Central Jakarta, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: sh.diyah@gmail.com

**Rikrik Rahadian**

Statistic Officer, Center for Data Statistic and Information, Ministry of Marine Affairs and Fisheries, Indonesia

Mina Bahari Building II, 16th Floor, Jl Medan Merdeka Timur No 16, Central Jakarta, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: rikrik.rahadian@kcp.go.id,  
rikrik.rahadian@gmail.com

**Christina Eva Marta**

Junior Planner

Ministry of Marine Affairs and Fisheries, Republic of Indonesia  
Mina Bahari Building III, level 14, Jl. Medan Merdeka Timur No.16, Central Jakarta 10110, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: christinaevamartha@gmail.com

**Aulia M Khatami**

Foreign Cooperation Analyst, DG of Competitiveness

Mina Bahari Building III, 15th Floor, Jl Medan Merdeka Timur No 16, Central Jakarta, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: kerjasama.pds@gmail.com

**Muhammad Febrianoer**

Cooperation Analyst, DG of Capture Fisheries.

Mina Bahari Building II, 14th Floor, Jl Medan Merdeka Timur No 16, Central Jakarta, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: mfebrianoer@kcp.go.id

**Dian Sukmawan**

Aquaculture Analyst, DG of Aquaculture

Mina Bahari Building IV, 8th Floor, Jl Medan Merdeka Timur No 16, Central Jakarta, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: diansukmawan@gmail.com

**Ida Bagus Nyoman Suryana**

Policy Analyst, DG of Aquaculture

Mina Bahari Building IV, 8th Floor, Jl Medan Merdeka Timur No 16, Central Jakarta, Indonesia  
Tel/ Fax: +62 21 3519070  
E-mail: ida.suryana@kcp.go.id

**Lao PDR**

**Vannaphar Thammajedy**

Deputy Director of Planning and Cooperation Division

Department of Livestock and Fisheries Ministry of Agriculture and forestry Lao PDR  
Tel/Fax: (+856-20) 55606866  
E-mail: vannaphar@gmail.com

## Malaysia

**Mdm Aishah binti Haji Yusoff**  
Head of Data Collection Section

Department of Fisheries Malaysia, Ministry of  
Agriculture and Food Industries, Level 2, Tower 4G2,  
Wisma Tami, Precint 4, Federal Government  
Administrative Centre, 62628 Putrajaya, Malaysia  
Tel/Fax: 03-88704209/0388891195  
E-mail: aishah@dof.gov.my

**Albert Apollo Chan**  
Fisheries Officer, Department of Fisheries,  
Malaysia

Department of Fisheries Malaysia, Ministry of  
Agriculture and Food Industries, Level 2, Tower 4G2,  
Wisma Tami, Precint 4, Federal Government  
Administrative Centre, 62628 Putrajaya, Malaysia  
Tel/Fax: 0388704330  
E-mail: albert@dof.gov.my

**Syed Yusuf bin Wan Drahman**  
Fisheries Officer, Department of Fisheries,  
Malaysia

Wisma Tami, Putrajaya, Malaysia  
Tel/Fax: 0388704335  
E-mail: syedyusuf@dof.gov.my

## Myanmar

**Dr. Kyaw Kyaw**  
Deputy Director

Office No.36, Naypyitaw  
Tel/Fax: 95-9-23189720  
E-mail: kyaw.72@gmail.com

**Nyo Nyo Thant (Ms.)**  
Deputy Fishery Officer  
Department of Fisheries

Bayint Naung Road, West Gyogone, Insein Township,  
Yangon, Myanmar.  
Tel/Fax: + 95 9 798173050  
E-mail: nyo151@gmail.com

## Philippines

**Reinelda Adriano (Ms.)**  
Chief Statistical Specialist,  
Fisheries Statistics Division,  
Philippine Statistics Authority (PSA)

10 Miami st. Cubao, Quezon City, Philippines  
Tel/Fax: 09175401245  
E-mail: rp\_adriano@yahoo.com,  
r.adriano@psa.gov.ph

**Venus Flores Amadeo (Ms.)**  
Planning Officer II  
Fisheries Planning and Economics Division  
Bureau of Fisheries and Aquatics Resources  
(BFAR)

Fisheries Building Complex, BPI Compound, Visayas  
Avenue, Quezon City, Philippines  
Tel/Fax: +639070752178  
E-mail: vamadeo@bfar.da.gov.ph

## Singapore

**Gwyneth Tey (Ms.)**  
Director of Joint Policy & Planning Division,  
Singapore Food Agency

52 Jurong Gateway Road #14-01 Singapore 608550  
Tel/Fax: +6805 2526  
E-mail: Gwyneth\_Tey@sfa.gov.sg

**Yeo Hui Yi (Ms.)**  
Manager of Joint Policy & Planning Division,  
Singapore Food Agency

52 Jurong Gateway Road #14-01 Singapore 608550  
Tel/Fax: +6805 2795  
E-mail: YEO\_Hui\_Yi@sfa.gov.sg



## Thailand

**Praewpan Kongprakhon (Miss)**  
Statistician, Senior Professional Level

50 Department of Fisheries, Kasetsart University  
Kampus, Paholyothin Rd, Chatuchak, Bangkok,  
Thailand, 10900  
Tel/Fax: 0814545092  
E-mail: praewpank@yahoo.com

**Phakmanee Sengthin (Miss)**  
Economist, Practitioner Level

50 Department of Fisheries, Kasetsart University  
Kampus, Paholyothin Rd, Chatuchak, Bangkok,  
Thailand, 10900  
Tel/Fax: 025613371  
E-mail: sup\_911@hotmail.com

## Viet Nam

**Le Trung Kien**  
Director of Fisheries Information Center-  
the head of Delegations

No 10 Nguyễn Công Hoan stress, Ba Dinh district, Ha  
Noi, Viet Nam  
Tel/Fax: +84919702168  
E-mail: ltkien@mard.gov.vn

**Nguyễn Thị Kim Cúc (Mrs.)**  
Officer of Fisheries Information Center

No 10 Nguyễn Công Hoan stress, Ba Dinh district, Ha  
Noi, Viet Nam  
Tel/Fax: +84915112506  
E-mail: cucntk.tcts@mard.gov.vn,  
tuancuctx@gmail.com

**Vu Van Tam**  
Officer of Capture Fisheries Department  
Department of Capture fisheries  
Directorate of Fisheries  
Ministry of Agriculture and Rural Development

No 10 Nguyễn Công Hoan stress, Ba Dinh district, Ha  
Noi, Viet Nam  
Tel/Fax: 0386539258  
E-mail: bgvantam@gmail.com,  
tamvv.tcts@mard.gov.vn

**Nguyen Vu Mai Anh (Ms.)**  
Officer of Aquaculture Department  
Directorate of Fisheries

No 10 Nguyễn Công Hoan stress, Ba Dinh district, Ha  
Noi, Viet Nam  
Tel/Fax: +84979726348  
E-mail: anhnvm.tcts@mard.gov.vn,  
nvmaianh@gmail.com

**Nguyen Thi Hong Nhung (Ms.)**  
Officer of Science, Technology, and International  
Cooperation Department

No 10 Nguyễn Công Hoan stress, Ba Dinh district, Ha  
Noi, Viet Nam  
Tel/Fax: +84915977227  
E-mail: nhung.doa@gmail.com

## ORGANIZATIONS

### FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)

**Stefania Vannuccini (Ms.)**  
Senior Fisheries Officer (Statistics)

Room F-202, Viale delle Terme di Caracalla 00153  
Rome Italy  
Tel: +39 06570 54949  
Fax: +39 06570 5276  
E-mail: Stefania.Vannuccini@fao.org

## SEAFDEC SECRETARIAT

<b>Malinee Smithrithee (Mrs.)</b> Secretary-General and Chief of SEAFDEC/TD	P.O. Box 1046, Kasetsart Post Office Bangkok 10903, Thailand Tel: + 66 2940 6326 Ext.117 Fax: +66 2940 6336 E-mail: sg@seafdec.org
<b>Koichi Honda</b> Deputy Secretary-General and Deputy Chief of SEAFDEC/TD	Tel: + 66 2940 6326 Ext.104 E-mail: dsj@seafdec.org
<b>Masanami Izumi</b> Special Advisor	Tel: + 66 2940 6326 Ext.115 E-mail: izumi@seafdec.org
<b>Worawit Wanchana (Dr.)</b> Policy and Program Coordinator	Tel: + 66 2940 6326 Ext.110 E-mail: worawit@seafdec.org
<b>Nualanong Tongdee (Ms.)</b> Information Program Coordinator	Tel: + 66 2940 6326 Ext.106 E-mail: nual@seafdec.org
<b>Takatsugu Kudoh</b> Assistant Project Manager for the Japanese Trust Fund Programs	Tel: + 66 2940 6326 Ext.111 E-mail: atfm@seafdec.org
<b>Pattaratjit Kaewnuratchadasorn (Ms.)</b> Senior Policy Officer	Tel: + 66 2940 6326 Ext.124 E-mail: pattaratjit@seafdec.org
<b>Virgilia T. Sulit (Ms.)</b> Fisheries Technical Officer	Tel: + 66 2940 6326 Ext.103 E-mail: sulit@seafdec.org
<b>Saivason Klinsukhon (Ms.)</b> Senior Information Officer	Tel: + 66 2940 6326 Ext.116 E-mail: saivason@seafdec.org
<b>Sawitree Chamsai (Ms.)</b> Policy Officer	Tel: + 66 2940 6326 Ext.121 E-mail: sawitree@seafdec.org
<b>Shiela V. Chumchuen(Ms.)</b> Technical writer/editor	Tel: + 66 2940 6326 Ext.102 E-mail: shiela@seafdec.org
<b>Satana Duangsawadi</b> Information Officer II	Tel: + 66 2940 6326 Ext.114 E-mail: satana@seafdec.org
<b>Sunutta Pudtal (Ms.)</b> Information Officer III	Tel: + 66 2940 6326 Ext.125 E-mail: sunutta@seafdec.org
<b>Witsarut Choseng</b> Program Officer	Tel: + 66 2940 6326 Ext.122 E-mail: witsarut@seafdec.org

## TRAINING DEPARTMENT (TD)

<b>Isara Chanrachkij</b> Project Planning and Management Division Head	P.O. Box 97, Phrasamutchedi Post Office Samut Prakan 10290 Thailand Tel: + 66 2425 6100 Ext. 140 Fax: +66 2425 6110 E-mail: isara@seafdec.org
--	---



**Dr. Taweekiet Amornpiyakrit**  
Special Departmental Coordinator (SDC)

Tel: + 66 2425 6100 Ext. 189  
E -mail: taweekiet@seafdec.org

**Namfon Imsamran (Ms.)**  
Information Technology Officer

Tel: + 66 2425 6100 Ext. 117  
E -mail: namfon@seafdec.org

**Yanida Suthipol (Ms.)**  
Information Technology Officer

Tel: + 66 2425 6100 Ext. 115  
E -mail: yanida@seafdec.org

**Siriporn Pangsonn (Ms.)**  
Fishing Ground Information Scientist

Tel: + 66 2425 6100 Ext. 142  
E -mail: psiriporn@seafdec.org

**Woraluk Meesomwat (Ms.)**  
Fisheries Database Developer

Tel: + 66 2425 6100 Ext. 144  
E -mail: woraluk@seafdec.org

**Suwanee Sayan (Ms.)**  
Senior Program Officer

Tel: + 66 2425 6100 Ext. 187  
E -mail: suwanee@seafdec.org

#### **AQUACULTURE DEPARTMENT (AQD)**

**Stephen Alayon**  
Head of Library and Data-Banking Services

Tigbauan Main Station (TMS)  
Tigbauan 5021, Iloilo, Philippines  
Tel/Fax: +63 33 5118878  
E-mail: sbalayon@seafdec.org.ph

#### **MARINE FISHERY RESOURCES DEVELOPMENT AND MANAGEMENT DEPARTMENT (MFRDMD)**

**Mohammad Faisal Md. Saleh**  
Research Officer

Marine Fishery Resources Development and  
Management Department (MFRDMD)  
Taman Perikanan Chendering, 21080 Kuala  
terengganu, Terengganu, Malaysia.  
Tel: +60 9617 55940  
Fax: +60 9617 5136  
E-mail: mohd\_faisal@seafdec.org.my

#### **INLAND FISHERY RESOURCES DEVELOPMENT AND MANAGEMENT DEPARTMENT (IFRDMD)**

**Arya Nugraha**  
Staff of Data Centre Unit

Inland Fisheries Resources Development and  
Management Department (IFRDMD)  
Jalan Beringin No. 8  
Mariana, Palembang, Indonesia  
Tel: +62 711 7537194  
Fax: +62 711 7537205  
E-mail: aarryaanugraha@gmail.com

**BJ Habibie**  
Staff of Administration and Financial Section

Inland Fisheries Resources Development and  
Management Department (IFRDMD)  
Jalan Beringin No. 8  
Mariana, Palembang, Indonesia  
Tel: +62 711 7537194  
Fax: +62 711 7537205  
E-mail: Bjusufhabibie97@gmail.com



## OPENING REMARKS

*Mr. Koichi Honda,*  
SEAFDEC Deputy Secretary-General

Representatives from the ASEAN Member States,  
Representative from Food and Agriculture Organization of the United Nations  
My colleagues from SEAFDEC Secretariat and Departments,  
Ladies and Gentlemen, Good Morning!

First of All, I would like to welcome all of you to the “First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia.” This Consultation is the first in a series of Consultations that will be organized by SEAFDEC with the aim of revising the “Regional Framework for Fishery Statistics of Southeast Asia.” It is fortunate that although this RTC has been postponed from the original schedule in July due to the COVID situation in Thailand, but the restriction measures of the Government has recently been released for some activities, and thus we can have this RTC organized today.

The “Regional Framework for Fishery Statistics of Southeast Asia” was developed more than a decade ago and used by SEAFDEC as basis for compilation of fishery statistics from ASEAN Member States and publishing a Regional Statistics Bulletin annually. However, as there have been subsequent development of new statistics standards at the global level by FAO, as well as the needs to improve regional compilation of fishery statistics, there becomes a need for SEAFDEC and countries in the region to improve the Regional Statistics Framework correspondingly.

It is therefore a task for all of you here, to share your views and suggestions, and to help us improve the Statistics Framework to meet with multi-fold objectives – one is to serve as the minimum requirement for countries in developing or improving national statistics system in harmonization with global and regional norms and standards that could help facilitate sharing and exchanging of data among countries; and another objective to serve as framework or skeleton for SEAFDEC in compiling annual fishery statistics data from countries in the future.

Although this Consultation has to be organized online, I really hope that you can thoroughly go through discussions under several topics and come up with clear direction for the future works. Without taking too much time, I would like to declare this Regional Technical Consultation open.

Thank you so much, have a good day!



**AGENDA**

- Agenda 1. Opening of the Consultation by Deputy Secretary-General
- Agenda 2. Background, Objectives and Arrangements of the Consultation
- Agenda 3. Introduction on Revision of the Regional Framework for Fishery Statistics of Southeast Asia
- Agenda 4. Country Presentations
- Brunei Darussalam
  - Cambodia
  - Indonesia
  - Lao PDR
  - Malaysia
  - Myanmar
  - Philippines
  - Singapore
  - Thailand
  - Viet Nam
- Agenda 5. New and Updated Global Frameworks Related to Fishery Statistics
- Agenda 6. Discussion
- 6.1 Revision of the “Regional Framework for Fishery Statistics of Southeast Asia” and “Explanatory Notes of the Fishery Statistical Bulletin of Southeast Asia” (general parts)
  - 6.2 Regional Compilation of Fish Processing Statistics
  - 6.3 Regional Compilation of Fish Trade Statistics
- Agenda 7. Conclusion and Recommendations
- Agenda 8. Closing of the Consultation by Deputy Secretary-General



## 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 26<sup>th</sup> 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.

SEAFDEC therefore proposed during the SEAFDEC Program Committee at its 42<sup>nd</sup> Meeting in 2019, and the SEAFDEC Council at its 52<sup>nd</sup> Meeting in 2020 for revision of the Regional Framework for Fishery Statistics of Southeast Asia, the proposal of which was supported by the SEAFDEC Council.

### II. REVISION OF THE REGIONAL STATISTICS FRAMEWORK

In line with the recommendations for revision of the Regional Framework for Fishery Statistics of Southeast Asia as suggested by the RTC in 2017 which was subsequently supported by the SEAFDEC Council, SEAFDEC plans organize a series of RTCs with the participation of representatives from the ASEAN Member States and representative from FAO to gather views/inputs for revision of the Regional Framework for Fishery Statistics of 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 Fish trade (export and import)

- 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))

The Series of Regional Technical Consultation on Fishery Statistics and Information

The series of RTC	Topics
The 1 <sup>st</sup> RTC	<p>Revision of the Regional Framework for Fishery Statistics of Southeast Asia</p> <ul style="list-style-type: none"> <li>• Background and Importance</li> <li>• Purpose and Usage                             <ul style="list-style-type: none"> <li>- Minimum Requirement for Fishery Statistics of Southeast Asia</li> <li>- Frameworks of Inputs for the Development of International Norms and Standards</li> <li>- Facilitate Sharing of Fishery Information</li> </ul> </li> <li>• Coverage                             <ul style="list-style-type: none"> <li>- Statistical Coverage</li> <li>- Geographical Coverage</li> <li>- Statistics on Fish Processing                                     <ul style="list-style-type: none"> <li>➤ Coverage and Classification</li> <li>➤ Fish Processing Establishment and Production</li> </ul> </li> <li>- Statistics on Fish trade                                     <ul style="list-style-type: none"> <li>➤ Coverage and Classification</li> <li>➤ Export of Fishery Commodities</li> <li>➤ Import of Fishery Commodities</li> <li>➤ Data Source</li> </ul> </li> </ul> </li> </ul> <p>Explanatory Notes of the Fishery Statistical Bulletin of Southeast Asia (general part)</p> <ul style="list-style-type: none"> <li>• General Notes                             <ul style="list-style-type: none"> <li>- Data Sources</li> <li>- Incomplete Data</li> <li>- Time Reference</li> <li>- Unit of Measurement</li> </ul> </li> </ul>
The 2 <sup>nd</sup> RTC	<p>Revision of the Regional Framework for Fishery Statistics of Southeast Asia (<i>possible to separate two RTCs</i>)</p> <ul style="list-style-type: none"> <li>• Marine Capture Production</li> <li>• Inland Capture Production</li> <li>• Aquaculture</li> <li>• Fish and Fish Farmers</li> <li>• Producer Price</li> </ul>
The 3 <sup>rd</sup> RTC	<ul style="list-style-type: none"> <li>• Finalizing the revision of Regional Framework</li> <li>• Monitoring the new questionnaires</li> </ul>

### 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 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																			

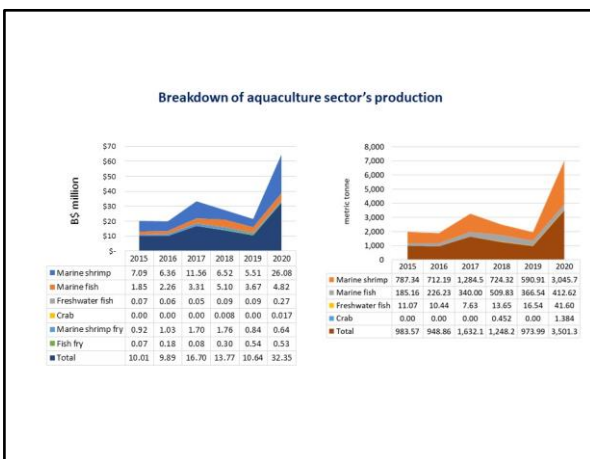
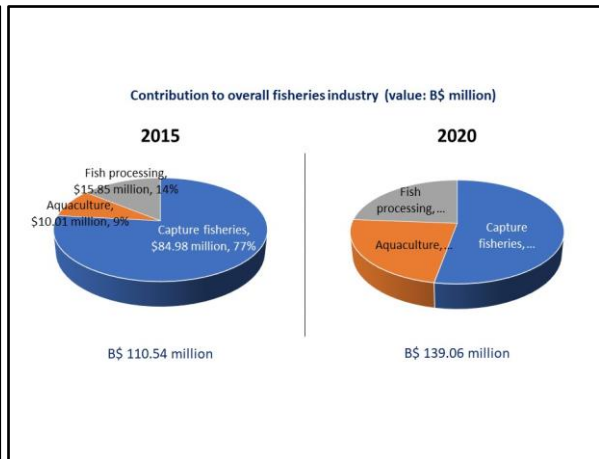
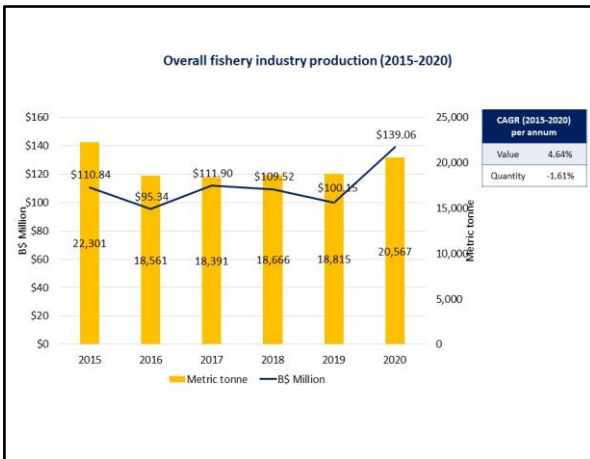
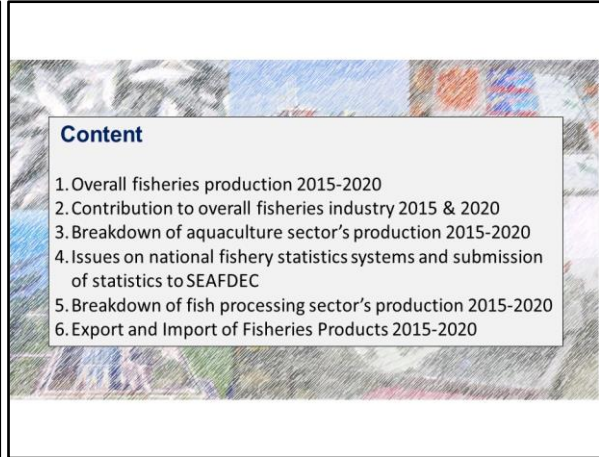
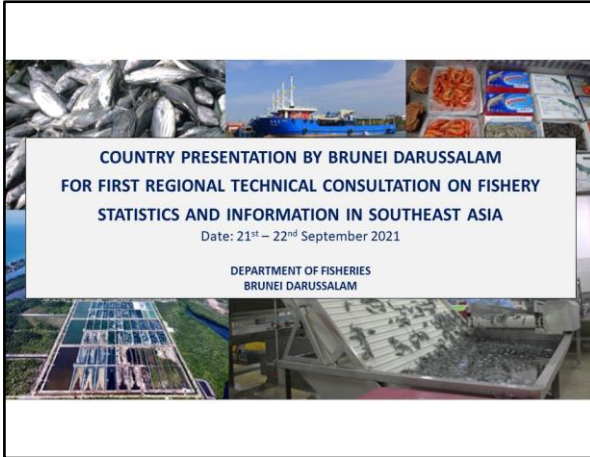
### IV. REQUIRED CONSIDERATION BY THE CONSULTATION

Consultation is requested to:

1. Provide suggestions and recommendations for improving the Regional Framework for Fishery Statistics of Southeast Asia; and
2. Take note the workplan and timeframe on the revision of Regional Framework for Fishery Statistics of Southeast Asia.



**COUNTRY PRESENTATION: BRUNEI DARUSSALAM**



**Issues on national fishery statistics systems and submission of statistics to SEAFDEC**

➤ Limitation of data  
 Data readily available – monthly production data (in tonnage and BND\$million);

- capture fisheries - by gear and by company
- aquaculture and fish processing sector - by company and sub-sector

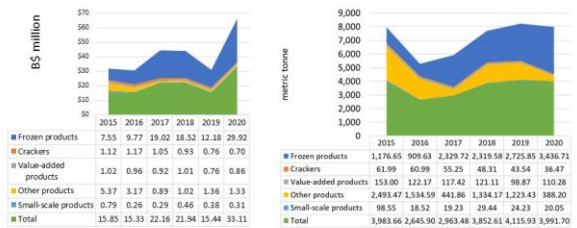
Mechanism – monthly production data submission by relevant industry division to Department's Statistic Fisheries Section

Table	Data required	Data availability
fishstatq1	Fishery Production by Sub-sectors (tonnage & 1000 USD)	Available
Fishstatq3	Producer Prices for Capture Production by Species (USD/kg) - Data by species/scientific name	Referral to Capture Fisheries Industry Development Division
Fishstatq4	Marine Capture Production (tonnage) by Type of Fishing Gear and by Species - Data by species/scientific name	Referral to Capture Fisheries Industry Development Division
fishstatq5	Inland Capture Production by Water Bodies	Inland capture data not recorded for Brunei Darussalam
fishstatq6	Number of Fishing Boats by Type and Tonnage	Referral to Licensing Section and Capture Fisheries Industry Development Division

Issues on national fishery statistics systems and submission of statistics to SEAFDEC (con't)

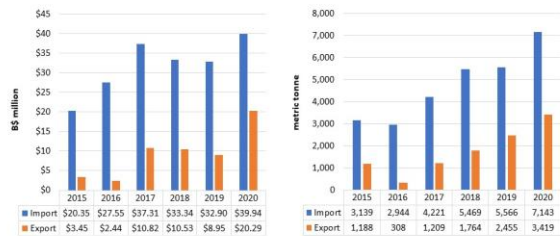
Table	Data required	Data availability
fishstatq7	Number of Fishing Units by Size of Boat	Referral to Licensing Section and Capture Fisheries Industry Development Division
fishstatq9	Aquaculture Production of Ornamental Fishes (pcs & 1000 USD)- Data by scientific name	Referral to Aquaculture Industry Development Division
fishstatq10	Seed Production from Aquaculture (million pcs) - Data by scientific name	

Breakdown of fish processing sector's production



Note:  
 • Value-added products: fish ball, fish cake, spring roll, popcorn shrimp, tunabyte, etc  
 • Other products: surimi, fish meal, shrimp feed, processed microalgae (spirulina & astaxanthin)  
 • Small scale products: salted fish, shrimp paste, smoked fish, fish sausage, etc

Export and Import of Fisheries Products 2015-2020




From 2015 to 2020, increase in the value of  
 • Import: 96%  
 • Export: 487%

National statistics on fish trade

Structure of national statistics	Category of reported data	Mechanism	Timeline
<ul style="list-style-type: none"> <li>Import/Export date</li> <li>Importing/Exporting company name</li> <li>Country of origin/destination</li> <li>Product source for export only (vessel, cages, re-export)</li> <li>Category (frozen, live)</li> <li>Species</li> <li>Grade (Grade I-IV, mollusk, crustacea)</li> <li>Import/Export value (BND\$)</li> <li>Import/Export quantity (kg)</li> </ul>	<ul style="list-style-type: none"> <li>Monthly import/export by company</li> <li>Import/Export by country</li> <li>Import/Export by company</li> <li>Export by product source</li> <li>Import/Export by species</li> </ul>	<ul style="list-style-type: none"> <li>Data request to Royal Customs and Excise Department, Ministry of Finance and Economy, via email</li> </ul> <p>Note:                      Brunei National Single Window (BDNSW)                      • Companies must be registered as importer and/or exporter of fish and fisheries products with the Department of Fisheries, as user of Brunei Darussalam National Single Window (BDNSW)                      • Companies apply import and export licenses through BDNSW                      • Department of Fisheries through Licensing Section manages and issues import and export licenses. However, Fish Inspection and Quality Control Section acts as approver for import license application for fresh and frozen fish and fish fry.</p>	Monthly



**COUNTRY PRESENTATION: CAMBODIA**



Fisheries Administration

## Country Presentation


1<sup>st</sup> Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia

Touch Bunthang and Hem Rady  
September 22-21, 2021, Phnom Penh

### Outline

- Status and trend on fisheries and aquaculture
- Issues on national fisheries statistics systems
- Suggestion and recommendations
- National statistics on fish processing
- National statistics on fish trade (export and import)
- Collaboration among AMSs and international/regional organization on fisheries statistics

### Status and trend on fisheries and aquaculture



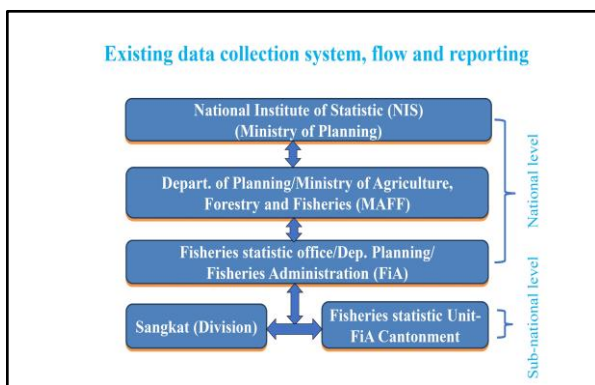
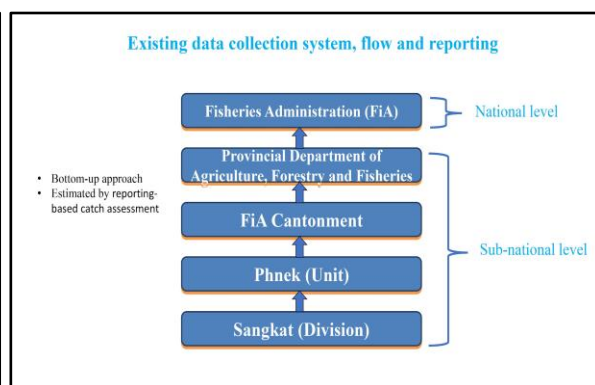
Fisheries production: Capture fisheries pro + Aquaculture pro

**Capture fisheries production:**

- Inland fisheries production
  - Rice field fisheries
  - Capture fisheries
  - Dai fisheries
- Marine fisheries production

**Aquaculture production:**

- Freshwater aquaculture production
- Marine aquaculture production

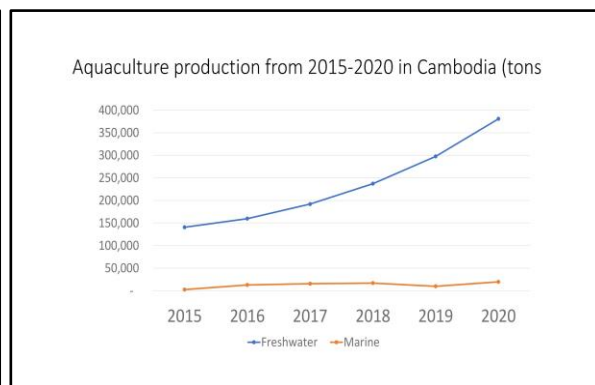
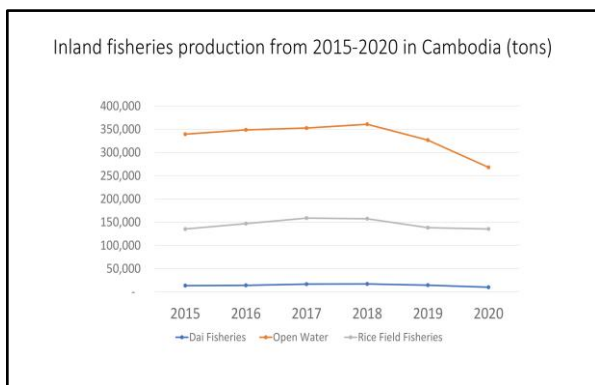


#### Data generation/collection by Inland Fisheries Research and Development Institute (IFReDI)

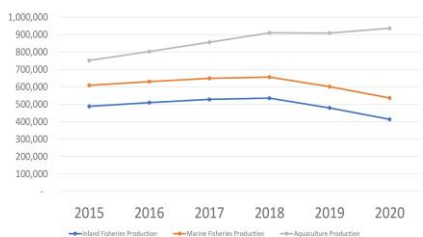
- Fish Abundance and Diversity Monitoring (FADF) by using log-book since 1998 (collaboration with MRC)
- Dai Fisheries Monitoring since fishing season 1994-1995 (collaboration with MRC)
- Rice field fisheries survey
- Inland and marine fisheries catch assessment with technical support by FAO funded by EU
  - The main target is to produce estimates that can be used to evaluate and supplement estimates currently produced by province level reporting-based catch assessment

#### Data compilation and consolidation

- Monthly, quarterly, 6 monthly and annual report
- Annual meeting



### Fisheries production from 2015-2021 in Cambodia (tons)



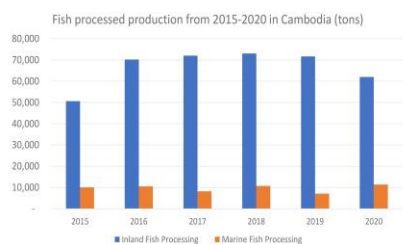
### Issues on national fisheries statistics systems

- Database
- Data on fisher (full time, part time and occasional?), fish price/value, and fish consumption?
- The existing data collection system is estimated by reporting-based catch assessment
- Data collection, data flow and reporting are take time
- Lack of financial support and expertise

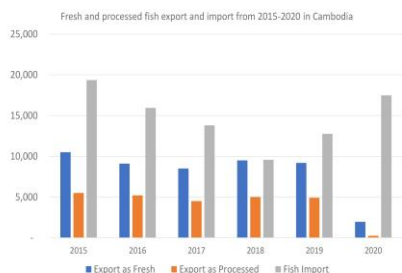
### Suggestion and recommendations

- Standardized database
- Need to update of # of fisher (full time, part time and occasional), fish price/value, and fish consumption
- Catch assessment of inland and marine fisheries need to be conducted to complement the existing system
- Expertise and financial support should be supported
- Build capacity to FiA Cantonment staffs, FiA Unit and Sangkat Officers.

### National statistics on fish processing

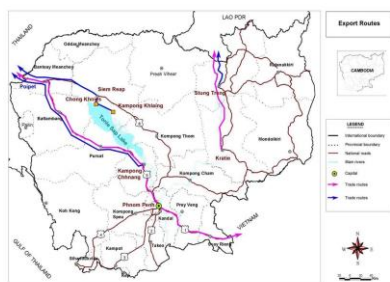


### National statistics on fish trade (export and import)



### Forms of Export of Inland Fish and Fishery Products of Cambodia

- The inland fish and fishery products of Cambodia are exported in three different forms:
1. Chilled fish are exported via land using trucks or cars
  2. Live freshwater species are exported using cages big boats via water-ways.
  3. High-value live fish and some fish products are exported via air (international airport in Phnom Penh)
- Inland Landing Site and Routs**
- Chong Khneas and Kampong Khleang in Siem Reap and Kampong Chhnang Province for export to Thailand via Poipet
  - Viet Nam via Phnom Penh, and
  - Kratie for export to Lao PDR (and then to Thailand) via Stung Treng.
- Marine Landing Site and Routs**
- 131 landing sites including ( 69 in Sihanoukville, 55 in Koh Kong, four in Kampot, three in Kep)
  - Frozen products were exported through Sihanoukville seaport



Export routes of inland fish and fishery products from Cambodia. The blue arrow indicates direct route and the pink arrow indicates indirect route.

### ISSUES ON FISHERIES TRADE

- Limited technical knowledge of producing commercially-important aquaculture species, particularly on addressing aquatic animal disease, resulting to low aquaculture production
- High cost of electricity for aquaculture intensification and fish processing facilities that generate low profit for fishers and fish processors
- Lack of control on the export and import of fishery products because of weak cross-border collaboration among key players in the country
- Sanitary and phytosanitary measures are not well integrated to production chains
- Laboratory testing and certification systems required by international markets are not well established
- Inadequate incentives for the private sector to enter commercial post-harvest activities
- Limited funds and equipment to support the management, research and extension activities, and conservation and protection of fishery resources
- Limited market opportunities because production and market systems of the country are not yet established well
- Illegal, unreported, and unregulated (IUU) fishing still remain that leads to destroyed marine fishery resources, and several international markets prohibit importation of fish and fishery products from IUU fishing

**Collaboration among AMSs and international/regional  
organization on fisheries statistics**

- SEAFDEC
- MRC
- FAO
- EU
- World Bank

**THANK YOU VERY MUCH  
FOR YOUR ATTENTION**



COUNTRY PRESENTATION: INDONESIA



**INDONESIA**  
Country Report


First RTC on Fisheries Statistics and Information in Southeast Asia

21 September 2021



### OUTLINE

- 1 STATUS AND TREND OF FISHERIES AND AQUACULTURE
- 2 ISSUES ON NATIONAL FISHERY STATISTIC SYSTEM AND SUBMISSION TO SEAFDEC
- 3 INPUTS FOR SEAFDEC STATISTICAL BULLETIN
- 4 INPUTS FOR REGIONAL FRAMEWORK FOR FISHERY STATISTICS OF SOUTHEAST ASIA
- 5 INDONESIA STATISTICS ON FISH PROCESSING
- 6 INDONESIA STATISTICS ON FISH TRADE
- 7 COLLABORATION AMONG AMS AND INT'L ORGANISATION



### INDONESIA PROFILE

**SEA**

- The biggest marine and archipelagic state; located between Indian and Pacific Ocean.
- 17,504 Islands (16,671 islands registered in UN).
- Sea Area: 6,4 million km<sup>2</sup> (territorial sea 0,29 million km<sup>2</sup>, inland water and archipelagic water 3,11 million km<sup>2</sup>, dan EEZ 3,00 million km<sup>2</sup>).
- Indonesia has an additional waters zone of 0,27 million km<sup>2</sup>, a continental shelf area of 2,8 million km<sup>2</sup>.
- Second longest coastline: 108.000 km.

**LAND**

Located in the cross area between Asia and Australia land area 1,9 million km<sup>2</sup>.

**LAND AREA**  
1,9 million km<sup>2</sup>  
(25%)

**SEA AREA**  
6,4 million km<sup>2</sup>  
(75%)




### INDONESIA FISHERIES AND AQUACULTURE PRODUCTION TREND 2015 - 2019

Rincian - Item	Tahun - Year					Pertumbuhan / Growth (%)	
	2015	2016	2017	2018	2019*	2015 - 2019	2018 - 2019
Volume Produksi (Ton) - Production Volume (Ton)	22.311.910	22.582.510	23.186.443	23.049.855	22.860.767	0,62	-0,82
Sub Jumlah	6.677.817	6.580.191	7.071.453	7.361.121	7.335.322	2,44	-0,35
<b>Perikanan Tangkap - Capture Fisheries</b>							
Perikanan Laut - Marine Fisheries	6.204.683	6.115.469	6.603.631	6.701.834	6.630.123	1,74	-1,07
Perikanan Darat - Inland Fisheries	473.134	464.722	467.822	659.287	705.199	11,69	6,96
Sub Jumlah	15.694.093	16.002.319	16.114.991	15.688.734	15.525.445	-0,16	-1,04
<b>Perikanan Budidaya - Aquaculture Fisheries</b>							
Ikan - Fish	4.364.751	4.952.018	5.867.439	5.368.532	5.745.172	7,33	7,02
Rumput Laut - Seaweeds culture	11.269.342	11.050.301	10.547.552	10.320.202	9.780.273	-3,47	-5,23

Keterangan - Note:  
\*) Temporary Data, on Process for Validation

### National Fishery Statistic System



### SCOPE OF ONE DATA OF MARINE AND FISHERIES

- KUSUKA (Marine and Fisheries Business Actors)**, an integrated Base Population Data Collection program, covering:
  - Fishermen;
  - Fish Farmers;
  - Fish Processing;
  - Fish Sellers; and
  - Salt Farmers.
- Production Sampling in 514 Districts all over Indonesia**, covering:
  - Aquaculture;
  - Captured fisheries;
  - Fish Processing; and
  - Salt Processing.
- Production Estimation, Involving 514 Districts from all over Indonesia**, covering:
  - Aquaculture Production;
  - Captured Fishery Production;
  - Fish Processing Production; and
  - Salt Processing Production.

PURDASTI, KPP, 2021

### LEGAL BASIS FOR DATA MANAGEMENT

- 1 Presidential Decree 95 / 2018** Electronics Based Government System
- 2 Presidential Decree 39 / 2019** One Data of Indonesia
- 3 Ministerial Regulation No 42/2019** Marine and Fisheries Business Actor (KUSUKA)
- 4 Ministerial Regulation No 61/2020** One Data of Marine and Fisheries
- 5 Minister Instruction No B.147/MEN-KP/III/2021** Accelerate Data Collection of Key Actors and Strengthen Data Management Quality

PUSDATIN, RPP, 2021

### TYPES AND METHOD OF DATA COLLECTION

**DATA COLLECTION** branches into:

- KUSUKA** (Marine and Fisheries Business Actors) leading to **CENSUS**
- PRODUCTION** (FISHING PORT, NON-FISHING PORT, INLAND WATERS, AQUACULTURE) leading to **1. CENSUS** and **2. STRATIFIED RANDOM SAMPLING**

PUSDATIN, RPP, 2021

### KUSUKA (MARINE AND FISHERIES BUSINESS ACTOR) DATA COLLECTION

**OBJECTIVES**  
Collecting / updating data on fisheries business actors including data on fisheries households, facilities and types of activities of all capture fisheries business actors according to their domicile. KUSUKA is integrated with National ID Number (the Ministry of Home Affairs)

**RESPONDENTS**  
All capture fisheries Business Actors in accordance with their Domicile

**METHOD**  
CENSUS

**DATA COLLECTION INSTRUMENT**  
Questionnaires KUSUKA Individuals & Cooperation

PUSDATIN, RPP, 2021

### DATA COLLECTION OF FISHERIES PRODUCTION

**OBJECTIVES**

- Collecting production data at the fishing port
- Collecting sampling data on marine and inland capture fisheries and aquaculture production
- As a basis for estimating district / city level aggregate production figures

**RESPONDENTS**

- All vessels / units that land their catch at the fishing port
- Fisheries household sample selected in the district / city (non-fishing port)

**METHODS**

- Census in fishing port
- Sampling, randomly selected from each population stratification in each district / city
- Recall where the respondent was interviewed regarding fishing activities carried out in the last month (0-3)

**DATA COLLECTION INSTRUMENTS**  
Capture fisheries, inland water, and aquaculture production questionnaire

**DATA COLLECTION PERIODS**

- Daily for fishing port
- Monthly for non-fishing port capture fisheries production in marine, inland waters, and aquaculture

PUSDATIN, RPP, 2021

### STAGES OF DATA COLLECTION, PROCESSING, VALIDATION, DAN PUBLICATION

- 1 DATA COLLECTION**
  - Updating population
  - Sampling frame development
  - Data collection
  - Check the completeness of data collection documents
- 2 DATA INPUT & DATA PROCESSING**
  - Checking data collection documents
  - Input data
  - Data processing
  - Tabulation and recapitulation
  - Data analysis
- 3 VERIFICATION & VALIDATION**
  - Examination of data processing results
  - Data verification
  - Data validation
  - Data revise
- 4 DATA FINALIZATION**
  - Data consolidation with related agencies
  - Finalize data
- 5 DATA PROCESSING & ANALYSIS**
  - Overview of national data collection processes (fishing industry, national institutions, vessel registries, VMS, etc.)
  - National Data Processing & Reporting (NADRS)
  - Data series analysis
  - Current year data analysis
  - Preparation of publication materials
- 6 PUBLICATION**
  - Presentation of data by tables, graphics, and infographics
  - Current year data
  - Data series
  - Easily accessible and can be downloaded in various file formats

PUSDATIN, RPP, 2021


### MECHANISM FOR VALIDATION ON DATA PRODUCTION

- 1 Sampling Verification** (DISTRICT VALIDATOR)
  - Comprehensive
  - Accuracy
  - Logic
- 2 Estimation – Production Aggregation** (ONE DATA APPLICATION)
  - The One Data Application automatically counted, using the formula
- 3 Validation for District Production** (DISTRICT VALIDATOR)
  - Based on type of fishing gears
  - Based on the species of fishes
  - Yearly Data (Fishermen, Fisheries Households, etc)
- 4 Validation for Province Production** (PROVINCE + CENTER + PUSDATIN VALIDATOR)
  - Based on type of fishing gears
  - Based on the species of fishes
  - Yearly Data (Fishermen, Fisheries Households, etc)
- 5 NATIONAL VALIDATION** (PROVINCE + CENTER + PUSDATIN VALIDATOR)
  - Based on type of fishing gears
  - Based on the species of fishes
  - Yearly Data (Fishermen, Fisheries Households, etc)

PUSDATIN, RPP, 2021



### FUTURE IMPROVEMENTS OF DATA COLLECTION



- 1 Capacity building of enumerators in fishing port and non-fishing port on species and fishing gears identification
- 2 Indonesia should carry out census for all fisheries business actors (fishermen, fish farmer)
- 3 Development and integration of data collection application
- 4 Strengthening coordination between related national institutions

FOODAF/01/2021

### ISSUES ON NATIONAL FISHERY STATISTICS SYSTEM AND DATA SUBMISSION TO SEAFDEC


(BASED ON QUESTIONNAIRE/DATA REQUEST BY SEAFDEC ON SEVERAL ACTIVITIES)

**NATIONAL ISSUES**

- Limited number of Enumerators
- Geographical matters (various condition and location)
- Need for better number of sampling
- Need for better enumerator supervision

**DATA SUBMISSION TO SEAFDEC**

- Standardization of Indonesian/English/Scientific name of fish
- Fishing gears mapping review
- Rearrangement of National Data Collection System
- Data by gender and working hours are not available



### INPUTS FOR SEAFDEC STATISTICAL BULLETIN

Indonesia is in the position to observe the discussion intensively.

### INPUTS FOR REVISION OF REGIONAL FRAMEWORK OF FISHERY STATISTICS OF SOUTHEAST ASIA

Following the outcomes of the 52<sup>nd</sup> SEAFDEC Council Meeting in 2020, all SEAFDEC Member Countries has approved the initiative to revise Regional Framework of Fishery Statistics in Southeast Asia including the timeline of the revision progress.

Since this is the First RTC of Fishery Statistics conducted by SEAFDEC, Indonesia is in the position to observe the discussion intensively. And as we are aware that SEAFDEC member countries has various capacity on the data collection, SEAFDEC has to consider those capacities, especially on fish processing and fish trade data.

## Fish Processing Fish Trade Data

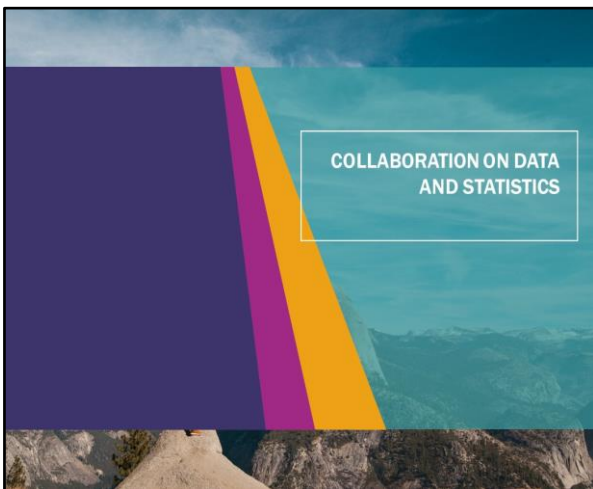
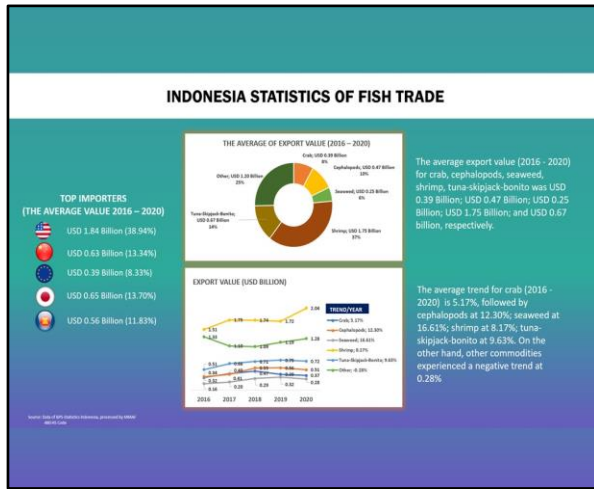
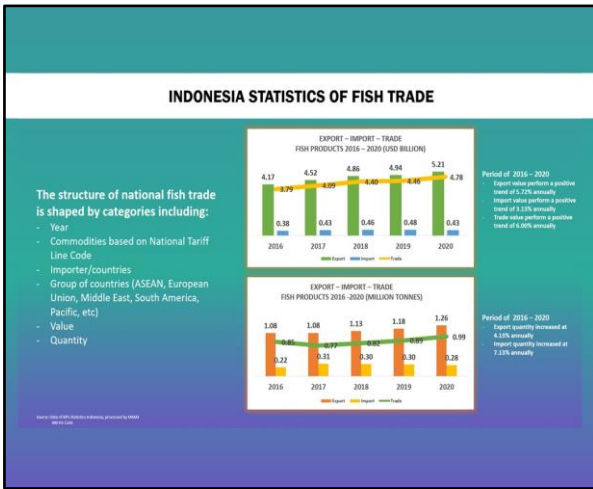


### INDONESIA STATISTICS OF FISH PROCESSING

The Volume of Fish Products 2015 - 2019 (Million tonnes)

Year	Volume (Million tonnes)	Methods
2015	5.38	The data consists of the fish processed by the following methods: - Smoking - Freezing - Canning - Drying - Extraction - Fermentation - Chilling - Mincing(Surimi) - Others
2016	4.36	
2017	5.97	
2018	6.18	
2019	6.85	

There is no data collection on product value at the processing level



### COLLABORATION ON MARINE AND FISHERIES STATISTICS

**SEAFDEC**

Indonesia and all SEAFDEC Member Countries has actively involved in formulating Southeast Asia State of Fish and Aquaculture (SEASOFIA) for every 5 years. In this initiative Indonesia has been involved in 2012 and 2017 publication, and currently in the progress of the completion of SEASOFIA 2022.

**RFMOs**

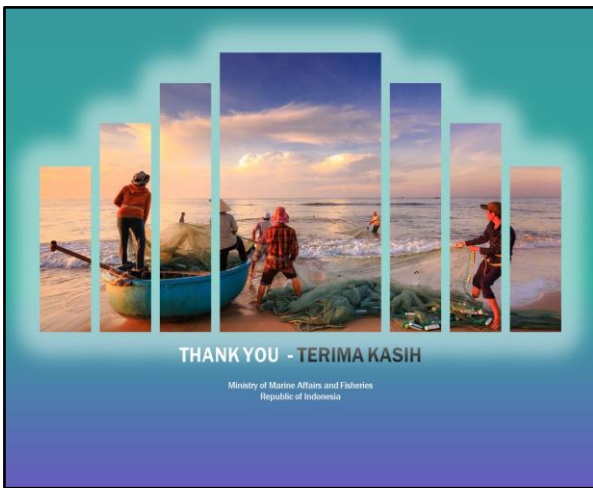
Indonesia is member of 3 RFMO, namely: IOTC, CCSBT, and WCPFC. As a full member obligation, Indonesia has to submit the certain datas related to the compliance to Conservation and management Measures of the respective RFMOs.

**FAO**

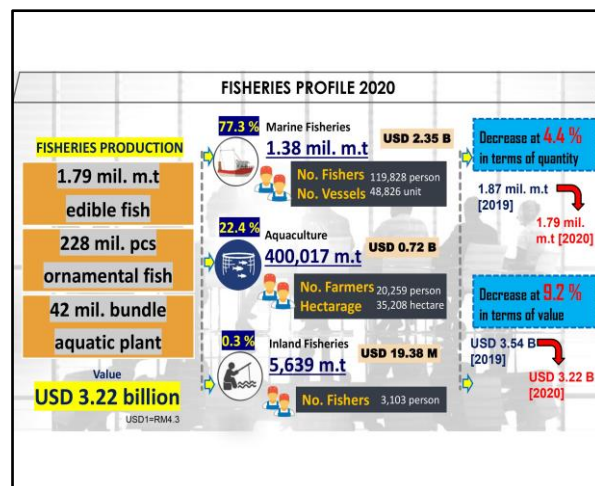
Indonesia contributes to The State of World Fisheries and Aquaculture (SOFIA) data and statistics submission. SOFIA is the FAO publication-published every two years to provide policy-makers, civil society and those whose livelihoods depend on the sector a comprehensive, objective and global view of capture fisheries and aquaculture, including associated policy issue.

**OECD**

MMAF main engagement with Organisation for Economic Co-operation and Development (OECD) is on OECD Review of Fisheries, its flagship report based on data (fisheries support; fleet; landing; stocks status and management measures) reported by OECD countries and emerging economies with large fisheries. It aims to support policy makers in their efforts to deliver sustainable and resilient fisheries by suggesting priorities for action at national and international levels.



### COUNTRY PRESENTATION: MALAYSIA



#### 5-YEARS FISHERIES DATA

##### 1. Marine fisheries

YEAR	NO. VESSEL	NO. FISHERMAN	LANDING (TONNES)	VALUE (USD' MILLION)
2016	53,190	132,305	1,574,447	2,456.13
2017	52,648	130,645	1,465,113	2,515.85
2018	52,556	128,148	1,452,862	2,803.71
2019	50,945	126,595	1,455,446	2,736.56
2020	48,826	119,828	1,383,299	2,403.40

#### 5-YEARS FISHERIES DATA

##### 2. Aquaculture

YEAR	No. Culturists	Production (Tonnes)			Value (USD '000)
		Freshwater	Brackishwater	Total	
2016	21,790	103,348	304,039	407,387	647,383
2017	18,322	102,597	324,419	427,015	707,195
2018	18,871	101,270	290,195	391,465	710,931
2019	20,149	104,602	307,181	411,782	768,520
2020	20,262	97,210	302,807	400,018	724,356

1 USD = MYR 4.3

##### 3. Inland Fisheries

YEAR	FISHERMAN	LANDING	VALUE (USD' MILLION)
2016	5,156	5,848	21.61
2017	5,107	5,177	21.70
2018	4,703	6,089	30.82
2019	3,205	5,569	21.77
2020	3,103	5,625	19.80

- #### ISSUES ON NATIONAL FISHERIES STATISTIC
- Wide area of coverage  
✓ High no. of landing port to cover
  - Insufficient enumerators
  - Lack of supervisions
  - Lack of training
  - Insufficient fund

- #### NATIONAL STATISTIC ON FISH PROCESSING
- Incomplete data
  - The data scattered in multi-agencies
  - DOF only have the list of DOF-registered and small-scale fish processing companies
  - Currently, they are approximately 250-300 small-scale fish processing companies in DOF database (this number does not represent Malaysia)
  - Way forward; inter-agencies collaboration and compile all fish processing data available

**NATIONAL STATISTIC ON FISH TRADE  
(EXPORT AND IMPORT)**

YEAR	EXPORT (M.T)	VALUE (USD)	IMPORT (M.T)	VALUE (USD)
2015	259,763	635,394,351	444,346	876,697,030
2016	310,788	705,061,262	426,559	937,719,910
2017	248,899	734,337,287	431,857	1,009,800,708
2018	275,898	733,208,270	466,399	1,021,935,203
2019	316,291	878,348,072	473,866	1,127,587,941

USD1=RM4.3

**NATIONAL STATISTIC ON FISH TRADE  
(EXPORT AND IMPORT)**

- Collected by custom, and delivered to relevant agencies on the first half of next year
- Published on national statistic (1-year delay)
- Multi-categories; import and export countries, commodities, quantity and value


**COLLABORATION WITH INTERNATIONAL/ REGIONAL ORGANIZATION ON FISHERY STATISTICS**


- I. FAO
  - I. provide data annually to FAO
  - II. Is it the same format with SEAFDEC?
- II. IOTC
  - I. provide data annually related to fish catch in Indian Ocean



**Thank you**

## COUNTRY PRESENTATION: MYANMAR





First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia

Country Presentation

Department of Fisheries  
Myanmar

21/22 SEPTEMBER 2021

Zoom applied Virtual Meeting  
SEAFDEC Secretariat

### ASEAN-SEAFDEC Resolution and Plan of Action-2020/2030

- The Resolution and Plan of Action on Sustainable Fisheries for Food security for the ASEAN Region Towards 2030 were prepared by the ASEAN-SEAFDEC Member Countries in collaboration with the ASEAN and SEAFDEC, and were adopted by the ASEAN Senior Officials and Ministries during the Special Senior Officials Meeting of the 41<sup>st</sup> Meeting of the ASEAN Ministers on Agriculture and Forestry on 5 August 2020 and the 42<sup>nd</sup> Meeting of the ASEAN Ministers on Agriculture and Forestry on 21 October 2020, as well as the Senior Official and Minister responsible for fisheries of Japan *ad referendum*.
- The Resolution and Plan of Action are envisaged to serve as policy framework and priority actions to support sustainable development of fisheries and enhancing the contribution of fisheries to food security and better livelihood of people in the region towards the coming decades.
- National Fishery policy framework consider to align with those above mentioned important document on statistics and information for implementing and improving national fisheries statistics and information system.
- Central Statistical Organization-CSO is government core agency for authorization for main and subsidiary law making for statistics. (pilot/research work for technical improvement done by Department arrangement and once to extend to national coverage, it is need to approve by CSO during the newly applied system.

### Country information on status and trend of fisheries and aquaculture (2015-2019 by quantity/value)

Quantity – Metric Ton  
Value- US \$ in Thousand

No.	Year	Aquaculture		Inland Capture Fisheries		Marine Fisheries	
		Qty	Value	Qty	Value	Qty	Value
1	2015	999630	1645526	1463120	2267836	2854200	2485140
2	2016	1014420	1961865	1580670	2450038	2996740	5094458
3	2017	1040869	1845797	1590360	2465058	3036410	5161897
4	2018	1130350	1502364	1594970	2472203	3152140	5201031
5	2019	1121350	1596808	1600053	2480080	3249700	5362005

Variation depend on fish price and US\$ exchange time by time)

### Issues on national fishery statistics systems and submission of statistics to SEAFDEC

- Still data collection manually and paper-based work from landing-site and collection center
- Need skilled enumerator under the department to cover all fisheries composition in different areas in the country both quantitative and qualitative
- Already to try to test the web-based data collection system only in Yangon region by 2016-2019, finding to improve both system and technical person for its expanding in the reality
- Need more training on basic statistics and technical improvement, e.g electronic based system/ less or remove data transition/ more realistic and reliable data for further necessary planning
- New DoF structure will properly support to the statistics system (currently 4 division extend to 8 division)
- Need successor planning (change experienced people time by time)
  - Q1-Fishery production/ Q3-Producer prices
  - Q5-Water bodies /Q6-Fishing boat
  - Q7-Fishing Unit/ Q9-Ornamental Production
  - Q10-Seed Production
  - Q4-Marine capture production by type of fishing gear and by species

### Suggested revision of the General Notes of the SEAFDEC Statistical Bulletin

- Fine, accepted and common under statistics area
- Follow to notes
- Units-express local unit for quantity and value those easy to convert to SEAFDEC unit kg/usd
- Need to align international/ regional use units

### Suggestions and Recommendations for improving Regional Framework

- Need to align with global framework
- Need to align with FAO framework

### National Statistics on Fish Processing

Currently there are 123 Processing Plants are registered of Department of Fisheries (DoF), Fishery establishments have been implementing to comply with International standards, Importing Countries requirement, encourage by Department of Fisheries. DoF directive 8/2018 is related with Technical Regulation on Export Import fishery products prepare by Trade Development program (Funded by EU) are enforced by Department of Fisheries, Quality Control and Research Section (QCRS – DoF). Myanmar has been exporting fishery products as chill, frozen, dry and salted to over 40 countries such as China, Japan, Korea, Thailand, Malaysia, Middle East Countries and EU member countries, United State.

### Map Showing Processing Plants



### Types of fishery export products

- Frozen and chilled marine shrimp, freshwater prawn
- Live grouper/eel/crab/Lobster/Shrimp
- Dry fish/shrimp
- Salted fish
- Fishmeal
- Surimi
- seaweed



### Yearly Exports of Fish and Fishery Products from (2015-2016) to (2019-2020)

No	Year	Total	
		MT	US\$ (Million)
1	2015-2016	368970.896	502.630
2	2016-2017	438706.505	605.819
3	2017-2018	568227.327	711.717
4	2018(April to September)	221074.470	293.526
5	2018 ( Oct 1 to September 9)	583676.354	728.257
6	2019-2020	669685.291	853.136



### Top (10) Species of Fish and Fishery Products in 2019-2020

No,	Commodity	Total	
		MT (Ordinary)	US\$ (Million)
1	Rohu	58838.108	60.999
2	Fish Meal	58694.005	56.155
3	Squid	32753.958	56.042
4	Ribbon Fish	30477.639	54.633
5	Hilsa	13769.423	39.122
6	Soft Shell Crab	2744.960	31.943
7	Live Mud Crab	9620.560	29.537
8	Live Eel	6991.000	23.514
9	White/Silver Pomfret	4405.585	23.284
10	Pink	9106.921	22.855

### Fishery Export


Quantity - Metric Ton

Value - US \$ in Million


No.	Year	Fish		Prawns		Others		Total	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1	2015-2016	246970.9	274.25	13673.49	49.64	108326.5	178.74	368970.89	502.63
2	2016-2017	290580	319.04	13082.46	58.21	135044	228.57	438706.51	605.82
3	2017-2018	394135.8	385.81	15905.44	60.78	158186.1	265.13	568227.33	711.72
4	2018-2019	382136	367.44	13979.31	59.98	187561.1	300.84	583676.35	728.26
5	2019-2020	427969.2	453.68	13965.21	57.4	227750.9	342.06	669685.29	853.14

**Collaboration among ASEAN Member States and International/regional organization on fishery statistics**

- Member of FAO and SEAFDEC
- Always participating and follow to those organization frame work as much as possible
- Request for improvement of national statistics system and staff capacity
- Done pilot web-based system collaboration with FAO
- No problem for submitting fishery statistics data- produce annual statistics book issue by the department



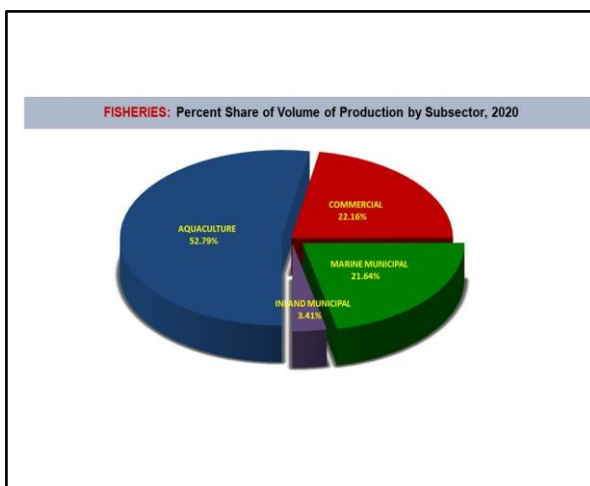
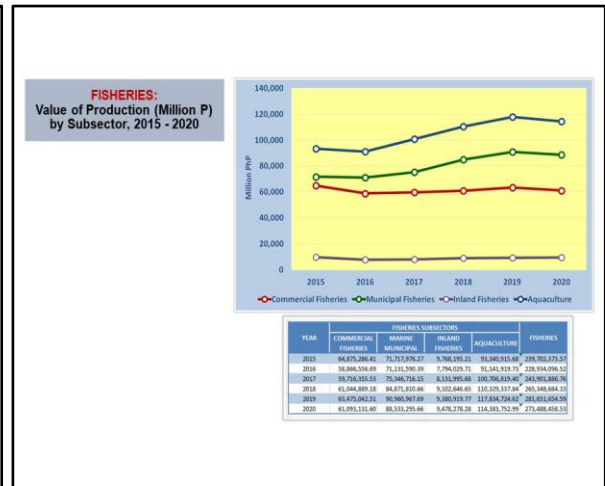
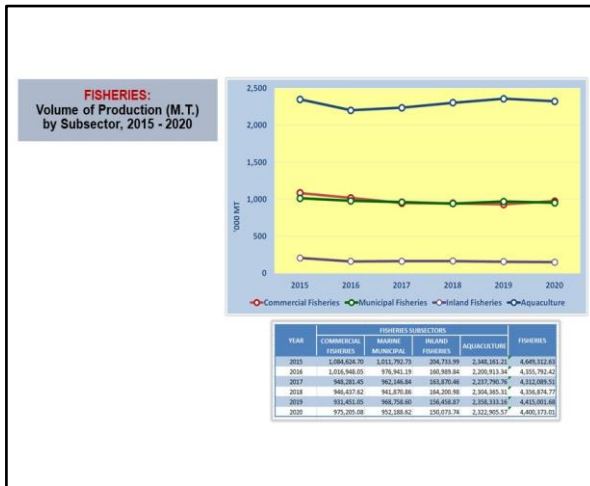
**Thank you very much for your attention**







COUNTRY PRESENTATION: PHILIPPINES



### Issues on National Fishery Statistics System

*First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia*

- Frequency of conduct of data collection
- Timeliness of release of data
- Species coverage
- Lack of disaggregated data by fishing ground
- Redesigning of fisheries surveys

### Data availability for SEAFDEC Statistical Bulletin

*First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia*

TABLE NUMBER/DESCRIPTION	AVAILABILITY
1. Annual Series of Production	
1.1 Total Production (Qty & Value)	👍
1.2 Marine Fishery Production (Qty & Value)	👍
1.3 Inland Fishery Production (Qty & Value)	👍
1.4 Aquaculture Production (Qty & Value)	👍
2. Fishery Production by Subsector (Qty & Value)	👍

### Data availability for SEAFDEC Statistical Bulletin

*First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia*

TABLE NUMBER/DESCRIPTION	AVAILABILITY
3. Marine Capture Fishery Statistics	
3.1 Number of Fishing Boats by Type and Gross Tonnage	👎
3.2 Number of Fishing Units by Size of Boat	✅
3.3 Marine Capture Fishery Production by Species and by Fishing Area	👍
3.4 Capture Production by Type of Fishing Gear and Species	👎

### Data availability for SEAFDEC Statistical Bulletin

*First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia*

TABLE NUMBER/DESCRIPTION	AVAILABILITY
4. Inland Capture Fishery Statistics	
4.1 Inland Capture Fishery Production by Species and by Fishing Area (Qty & Value)	👍
5. Aquaculture Statistics	
5.1 Aquaculture Production by Species and by Fishing Area (Qty & Value)	👍
5.2 Aquaculture Production by Species of Ornamental Fishes (Qty & Value)	👎
5.3 Seed Production from Aquaculture	👎

### Data availability for SEAFDEC Statistical Bulletin

*First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia*

TABLE NUMBER/DESCRIPTION	AVAILABILITY
6. Price of Fresh Fish	
6.1 Producer Price for Capture Fishery Production by Species	👍
7. Fishers	
7.1 Number of Fishers by Working Status	👎

### 3. Suggested Revision on General Notes of the SEAFDEC Statistical Bulletin

*First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia*

- Conversion to US\$ of value of production should specify the date because exchange rate varies during the reference period
- Difficulty in reporting number of boats on annual basis because the number reported per survey period results to duplication

Republic of the Philippines  
Philippine Statistics Authority

First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia

**Part 5**

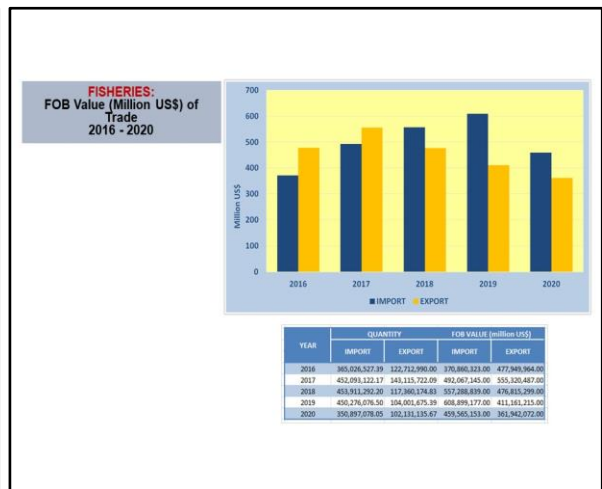
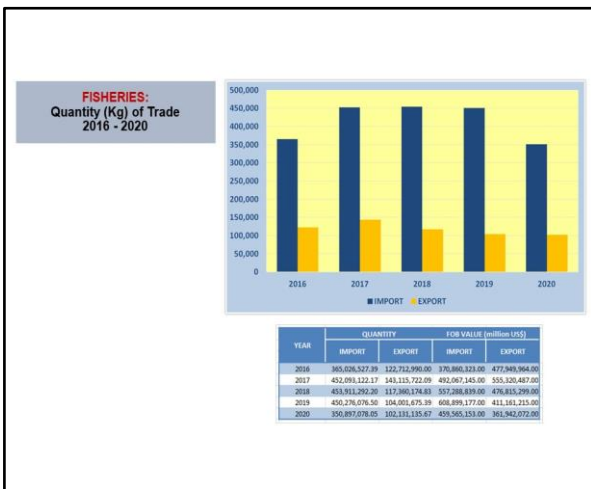
**NATIONAL STATISTICS ON FISH PROCESSING**

Republic of the Philippines  
Philippine Statistics Authority

First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia

**Part 6**

**NATIONAL STATISTICS ON FISH TRADE**



**Issues on National Fishery Statistics System**

Structure of statistics on fish trade

Fish trade by chapter, section and commodity level of PSCC  
Fish quantity and value by port and country

Responsible Agency:  
Philippine Statistics Authority

Timeline:  
Monthly reporting/revision  
Annual

Issues:  
Inclusion of non-custom based data  
Capture of transaction in the high seas

First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia

Republic of the Philippines  
Philippine Statistics Authority

First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia

**Part 7**

**COLLABORATION AMONG ASEAN MEMBER STATES AND INTERNATIONAL/REGIONAL ORGANIZATION ON FISHERY STATISTICS**



COUNTRY PRESENTATION: SINGAPORE



**Singapore Food Agency**

First Regional Technical Consultation on Fishery Statistics and Information  
Singapore

1

**Singapore Food Agency (SFA)**

**Vision**  
Safe Food for All

**Mission**  
To ensure and secure a supply of safe food

New agency launched to strengthen food security and safety, from farm to fork



The new Singapore Food Agency will address all food-related issues, from food production to food hygiene. PHOTO: ST FILE

- Formed on 1st April 2019
- Brings together all food-related resources and capabilities for holistic management of the food industry "from farm to fork"

(straitstimes.com, 1 Apr 2019)

2




**The Singapore Food Story comprises 3 food baskets to ensure Singapore has a supply of safe food (i.e. food is available, accessible and safe)**

- Diversify Import Sources**
  - Reduces risk of reliance on any one supply source
- Grow Local**
  - Helps mitigate our reliance on imports and serves as a buffer during supply disruptions to import sources
  - Aim is to transform agri-food industry into one that is highly productive, employing climate-resilient and sustainable technologies
- Grow Overseas**
  - Support our companies to expand and grow overseas so that their produce can potentially be exported to Singapore

4

**Basket 1: Diversify Import Sources**

**The world is our market**



- Explore and accredit more import sources to facilitate the industry's diversification efforts
- Introduce key food importers to new food sources through sourcing trips and business networking sessions
- SFA has introduced requirements for importers of key food items to adopt plans to mitigate any supply disruptions.

5

**Basket 2: Grow Local**

1960s: 20,000 farms in Singapore

1970s: Path towards industrialisation & urban development

2020: Licensed food farms in Singapore

Category	Quantity
Sea-based Seafood	110
Land-based Seafood	14
Leafy Vegetables	83
Beansprouts	7
Hen and Quail Eggs	5
Others	10
<b>Total</b>	<b>233</b>

**Local farm production of food items**

- 8% produced locally (seafood)
- 4% produced locally (vegetables)
- 28% produced locally (eggs)

6

**Basket 3: Grow Overseas**



- **Overcome local constraints**
  - Limited land
  - High capital costs and operating costs
- **Open up new markets and forge stronger bilateral relationships**
  - Foreign investments overseas
  - Increase food production in partnering country
  - Potential to re-export back to Singapore

We also have facilities supporting Fisheries besides farming activity

**Marine Aquaculture Centre (MAC)** as a vibrant tech and innovation hub for tropical aquaculture



**Fishery Ports** for foreign and local fishing vessels to bunker, discharge and tranship fish; wholesale fish markets.



As a net food importer today, the local fisheries (i.e. Capture and Aquaculture) sector is small.

Quantity (Tonnes)						Value (USD 1,000)					
Sector	Sub-Sector	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Capture	Total	3,235	3,108	1,310	1,418	356	9,091	7,656	9,617	9,000	2,248
	Marine	3,235	3,108	1,310	1,418	356	9,091	7,656	9,677	9,000	2,248
	Inland										
Aquaculture	Total	6,112	5,891	5,702	5,831	4,823	29,241	33,689	44,576	36,149	27,812
	Mariculture	4,942	4,604	4,453	4,448	3,887	19,955	21,423	27,964	22,431	15,335
	Brackishwater	340	388	395	369	263	3,345	6,228	8,439	5,862	3,157
	Freshwater	3,030	819	854	1,014	673	5,941	6,039	8,174	7,855	5,281
							38,332	41,345	53,653	45,149	30,060

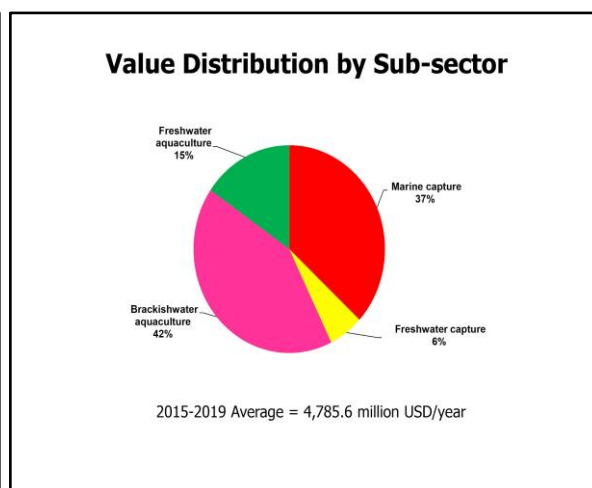
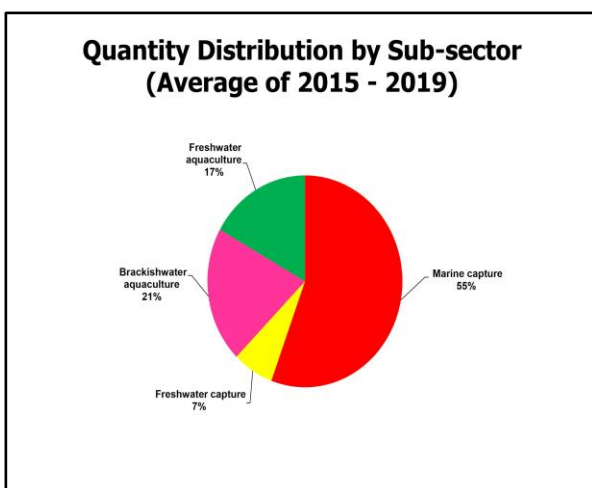
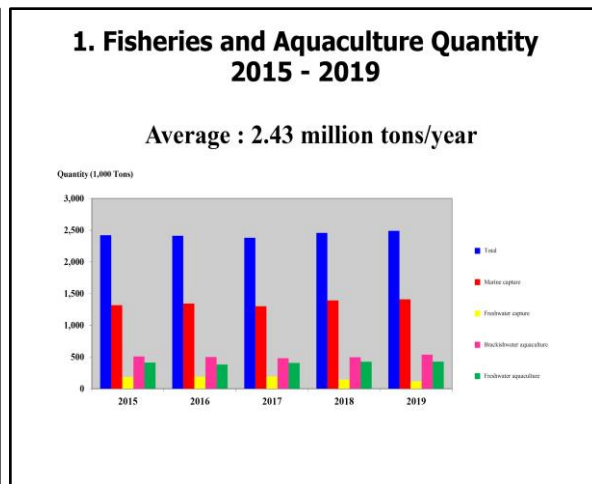
Singapore currently does not collect the quantity nor value from the fish processing industry; SEAFDEC might wish to collate the trade data from [UN Comtrade](#) published by United Nations Statistics Division (UNSD).

Thank You

**COUNTRY PRESENTATION: THAILAND**

**First Regional Technical Consultation on Fishery Statistics and Information in Southeast Asia**  
 (21-22 September 2021, Online Meeting)

MS. Praewpan Kongprakhon, Statistician  
 MS. Phakmanee Sengthin, Economist  
 Department of Fisheries, Thailand



**2. Issues and Constraints in National Data Collection System & Fishery Statistics Mechanism**

2.1 Budget & Staff inappropriate for work in case of sample surveys due to;

- Work burden of monthly survey
- A large sampling frame of freshwater surveys (Aquaculture & Capture)

2.2 Incomplete sampling frame especially for aquaculture surveys, could not enumerate all of non-registration farms.

2.3 Changing of culture accommodate to situation (trade incentive, fish price etc.) make difficulty for sampling and production estimation.

2.4 No statistical officer at provincial level, some data collectors insufficient knowledge affect data quality.

2.5. Poor cooperation from industrial sector

### 3. Current Submission

Form	Data	Year
Q1	Production by Sub-Sector	2019
Q2	Capture Production by Species - Freshwater - Marine	2019 2020
Q3	Producer Prices by Species	2020
Q4	Marine Capture Production by type of fishing gear & species	2020
Q5	Inland Production by Water Bodies	2019
Q6	Number of Fishing Boats (type & tonnage)	2020
Q7	Number of Fishing Units by Size of Boat	2020
Q8	Aquaculture of Fish, Crustacean and Molluscs by Species, Production, Environment and Fishing Area	2019
Q9	Aquaculture Production of Ornamental Fish	
Q10	Seed Production from Aquaculture	
Q11	Fishers	

### 4. Suggested Revision of the General Notes of the SEAFDEC Statistics Bulletin

- Some definitions should be revised such as "small scale & large scale"

### 5. Marine Fish Processing

Raw material used by products

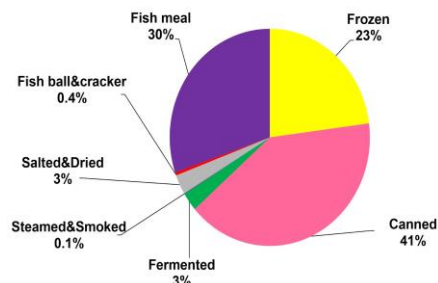
Unit : Ton

year	Total	Frozen	Canned	Fermented (Fish sauce & Budu sauce)	Steamed & Smoked	Salted&Dried (fish, squid,shellfish)	Fish ball & cracker	Fish meal
2015	2,649,244	693,957	929,832	83,306	4,143	80,071	12,326	845,609
2016	2,242,266	516,010	861,907	71,054	4,280	80,997	11,161	696,857
2017	1,989,094	380,972	847,396	56,352	885	61,363	9,582	632,544
2018	1,934,452	402,467	893,422	39,028	559	44,579	7,716	546,681
2019	2,055,183	500,112	876,731	50,095	514	52,855	8,224	566,652
Avg.	2,174,049	498,704	881,858	59,967	2,076	63,973	9,802	657,669

Unit : 1,000 USD

2019	2,274	811	1,231	38	1	68	8	118
------	-------	-----	-------	----	---	----	---	-----

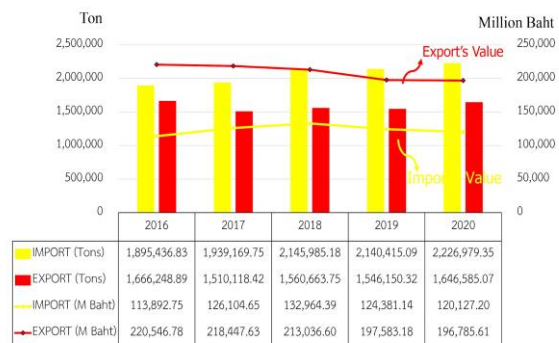
### Raw Material Used Proportion



### Data on Fish Processing

- Data source : DOF
- Coverage : Marine fish
- Annual survey, published 1 year later
- Data category
  - Quantity & Value of raw material used by type of products
  - Number of plants by type of products
- \* Additional, Ice data (no. of plant / quantity & Value)

### 6. National Statistics on Fish Trade Export & Import 2016 - 2020





### Data on Fish Trade

- Data source : The Customs Department
- Monthly data, published 2 months later.
- Data category
  - Import & Export by commodities group
    - Shrimp
    - Fish
    - Other fisheries products
    - Cephalopods
    - Canned products
  - Import & Export by country

### Data in 2020 by Commodities

Import      Export

Import			Export		
Commodity	Value (Million Baht)	% of Total	Commodity	Value (Million Baht)	% of Total
1.3 Fresh, chilled and frozen shrimp	16,846.76	2,044.75	1.1 Fresh, chilled and frozen shrimp	13,567.94	267,112.8
1.2 Dried, salted or in brine shrimp	6,307.04	772.77	1.2 Dried, salted or in brine shrimp	5,757.91	476.28
1.3 Boiled or steamed shrimp	23.01	0.31	1.3 Boiled or steamed shrimp	3,642.76	74.94
1.4 In airtight containers shrimp	71.41	30.22	1.4 In airtight containers shrimp	12,063.81	240,836.8
1.5 Prepared and preserved shrimp	868.23	76.37	1.5 Prepared and preserved shrimp	41,624.08	792,322.2
<b>Shrimp Total</b>	<b>25,081.45</b>	<b>3,074.96</b>	<b>Shrimp Total</b>	<b>103,640.48</b>	<b>2,008,911.6</b>
2.1 Fresh, chilled and frozen cephalopods	197,401.76	15,875.06	2.1 Fresh, chilled and frozen cephalopods	454.41	766.21
2.2 Dried cephalopods	1,797.87	1,436.75	2.2 Dried cephalopods	1,008.75	1,644.88
2.3 Prepared and preserved cephalopods	11,417.81	944.29	2.3 Prepared and preserved cephalopods	1.89	3.19
2.4 Smoked cephalopods	0.00	0.00	2.4 Smoked cephalopods	0.00	0.00
<b>Cephalopods Total</b>	<b>210,617.44</b>	<b>16,456.11</b>	<b>Cephalopods Total</b>	<b>1,464.05</b>	<b>2,311.27</b>
3.1 Fresh and chilled and fish (whole)	15,929.46	2,044.86	3.1 Fresh and chilled and fish (whole)	7,072.19	137,611.8
3.2 Fresh and chilled fish, fillet and minced	76,251.94	2,647.12	3.2 Fresh and chilled fish, fillet and minced	28,169.67	540,366.8
3.3 Dried fish	3,586.26	292.36	3.3 Dried fish	2,224.81	42,222.2
3.4 Live and frozen fish	3,820.72	271.91	3.4 Live and frozen fish	1,682.17	31,808.0
3.5 Fresh, chilled and frozen tuna	462,282.27	41,468.62	3.5 Fresh, chilled and frozen tuna	782,214.7	14,842,147.4
<b>Fish Total</b>	<b>1,007,371.45</b>	<b>41,462.01</b>	<b>Fish Total</b>	<b>1,637,217.12</b>	<b>30,808,911.2</b>
4.1 Other canned seafood	25,473.67	2,343.86	4.1 Other canned seafood	39,611.1	770.0
<b>Canned Products Total</b>	<b>26,473.67</b>	<b>2,343.86</b>	<b>Canned Products Total</b>	<b>39,611.1</b>	<b>770.0</b>
5.1 Canned pet food	11.41	2.36	5.1 Canned pet food	667,714.78	12,611,170.0
5.2 Prepared and preserved seafood	34,386.79	6,063.34	5.2 Prepared and preserved seafood	36,000.00	693.00
5.3 Fresh, chilled and frozen cockle	1,962.00	388.91	5.3 Prepared and preserved seafood	1,962.00	38,014.0
5.4 Fish meal	58,414.26	1,235.44	5.4 Other prepared and preserved crab	1,000.00	19.00
5.5 Other fisheries products	102,417.25	2,637.37	5.5 Other fisheries products	1,000.00	19.00
<b>Other Fisheries Products Total</b>	<b>262,187.30</b>	<b>6,113.88</b>	<b>Other Fisheries Products Total</b>	<b>1,000.00</b>	<b>19.00</b>
<b>Grand Total</b>	<b>3,236,979.10</b>	<b>199,121.59</b>	<b>Grand Total</b>	<b>1,646,961.07</b>	<b>31,169,811.0</b>

### 7. Collaboration between Thailand and International/Regional Organization on Fishery Statistics

- DOF by Fishery Statistics Group has reported national statistics to SEAFDEC, FAO, OECD and IOTC
- There are combine the forms together for same data such as SEAFDEC&FAO, FAO&OECD
- Some problems on completion
  - data not conform with classification, definitions or scope of data are defined => metadata and noted are important be included in reporting
  - some data not available/incomplete such as fishers

Thank you for your kind attention



**COUNTRY PRESENTATION: VIET NAM**

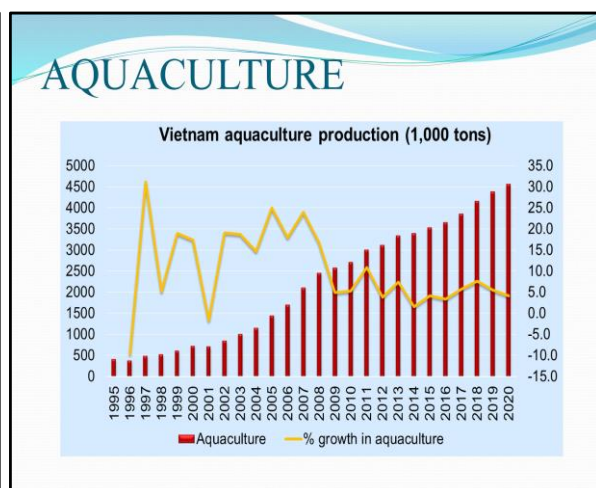
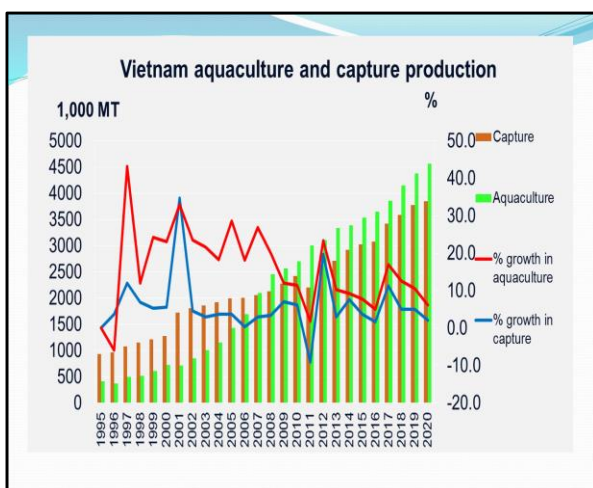
## Vietnam fisheries and aquaculture

Presentation for SEAFDEC 2021

### I. STATUS AND TREND OF FISHERIES

#### I.1. OVERVIEW

- Land area: 329,560 sq km; Coast line: 3,260 km; EEZ area: 1 million sq. km
- 2020:
  - Total production: 8.4 million MT (Catching: 3.85 million MT; Aquaculture: 4.56 million MT, include black tiger shrimp 267.700 tons, Vannamei 632.300, Pangasius is 1,560,000 tons).
  - Export: US\$8.4 billion;
  - Labour force: more than 4 millions (300,000 workers at the processing and seafood export: 179,601 workers at sea).
  - Fishing ships: total 94,572, including 2,662 boats > 24m long; 27,575 ones 15-24m long, 18,425 of 12-15m long, 45,950 of 6-12m long; 4,227 fishing teams with 29,588 fishing boats

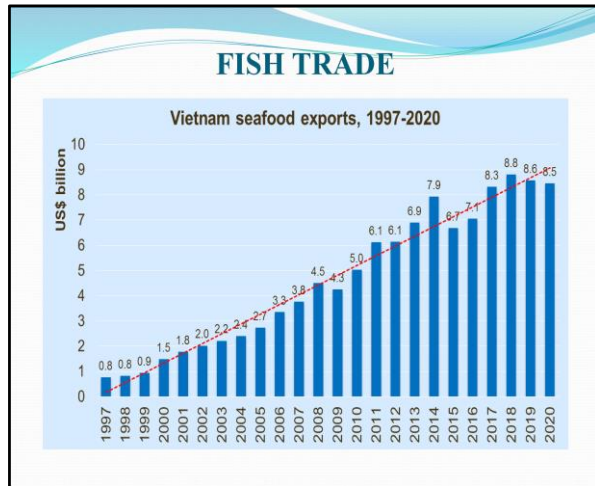


### II. ISSUE ON STATISTICS SYSTEM AND SUBMISSION OF STATISTICS TO SEAFDEC

- **Legal basic**
  - The Law on Statistics, 2003 (Law on Statistics No. 4/2003/QH11).
  - The National Statistical Indicator System (Decision 43/2010/QĐ-TTg dated June 2nd, 2010).
  - Fisheries Law, 2017: (Law on Fisheries No. 18/2017/QH14).
  - The system of indicators for agriculture and rural development (Circular 16/2020/TT-BNNPTNT and Circular 17/2020/TT-BNNPTNT)
- **Organizations:**
  - **GSO:**
    - Harvesting area, production, boats (with >90 CV)...(annually) by survey.
    - Price of selected species (monthly) by survey
    - Value of Fishery industry (quarterly)
  - **MARD (D-FISH):** monthly statistics on planting area, harvesting area of shrim, pangasius; monthly statistics on production on shrim, pangasius, tuna (Big eye, yellow fin), fishing boats... through administrative reports.
- \* The two organizations have monthly, quarterly, annually meeting on data exchange.
- **Data collection and submission to SEAFDEC**

### II. ISSUE ON STATISTICS SYSTEM AND SUBMISSION OF STATISTICS TO SEAFDEC

- **Legal basic**
- **Organizations**
- **Data collection and submission to SEAFDEC - problems:**
  - Insufficient data (price, data on value, production of marine capture species by types of gears):
  - Differences on classification (production of aquaculture = Marine aquaculture + Inland aquaculture (No Brackishwater + Freshwater))



- Peak in 2018 with 8,8 million USD, then declined slightly.
- Constrains:
  - Yellow card from EU
  - The Covid-19 pandemic
  - Strick food safety inspection in China
- Advantages:
  - Free trade agreements (CPTPP, EVAFTA, ....)

- ### COLLABORATION ON FISHERY DATA
- Southeast Asian Fisheries Development Center (SEAFDEC): annual statistical data on fishery species production
  - Western and Central Pacific Fisheries Commission (WCPFC): annual statistical data on tuna production

## THANK YOU

## FOR YOUR LISTENING!

**NEW AND UPDATED GLOBAL FRAMEWORKS RELATED TO FISHERY STATISTICS**



**WP04**

**NEW AND UPDATED GLOBAL FRAMEWORKS  
RELATED TO FISHERY STATISTICS**

Stefania Vannuccini  
Senior Fishery Officer (Statistics)  
Leader - Statistics Team –  
CWP Secretary  
Fisheries and Aquaculture Division  
Food and Agriculture Organization of the United Nations (FAO)  
Rome, Italy  
[Stefania.Vannuccini@fao.org](mailto:Stefania.Vannuccini@fao.org)



## CONTENTS

<b>SUMMARY</b> .....	3
<b>THE ROLE OF STATISTICS</b> .....	3
<b>FAO AND CWP</b> .....	4
<b>CWP HANDBOOK OF FISHERY STATISTICAL STANDARDS</b> .....	6
<b>REVISION OF ISSCAAP</b> .....	8
ASFIS, ISSCAAP and role of FAO and CWP.....	8
The rationale for the revision.....	9
CWP involvement.....	9
Preliminary findings and proposal: criteria followed.....	10
The proposal in detail.....	10
<b>PRELIMINARY CATEGORIZATION OF AQUACULTURE FARMING METHODS</b> .....	16
<b>INTERNATIONAL STANDARD STATISTICAL CLASSIFICATION OF FISHERY VESSELS (ISSCFV) BY VESSEL</b> .....	22
Table 1: ISSCFV 2005 endorsed in 2019.....	22
Table 2. Comparison of ISSCFV 1984 and ISSCFV 2005.....	25
<b>INTERSESSIONAL WORK OF CWP</b> .....	29
<b>SUSTAINABLE DEVELOPMENT GOALS (SDGs)</b> .....	30
FAO's action as custodian of SDG indicator 14.4.1.....	31

## SUMMARY

This document provides an overview of the critical role that accurate, timely and comparable statistics play in better monitoring the trends and the progress towards national and international development goals and targets. To enhance information on standards and harmonization capacities is essential and in this respect the major function played by the Coordinating Working Party on Fisheries Statistics will be illustrated. New and forthcoming issues and standards relevant to the fishery and aquaculture sector will also be shown. In addition, a brief overview of the Sustainable Development Goals is provided.

## THE ROLE OF STATISTICS

Fisheries and aquaculture represent an important source of food, nutrition, income and livelihoods for hundreds of millions of people around the world. This is particularly relevant in Southeast Asia, where fish and fishery products represent the main source of animal protein for most of the population in the region and an important source of income and sustenance.

However, the marine and inland ecosystems and the resources they provide are increasingly threatened by changes in land-use, overfishing, illegal unreported unregulated (IUU) fishing, climate change, bycatches and discards, environment degradation and habitat destruction, poor management and many other factors. These issues can threaten the future expansion of the sector and affect its potentiality to continue to contribute significantly to food security and adequate nutrition.

For example, based on FAO's analysis of assessed commercial fish stocks<sup>1</sup>, despite notable progress in some areas, the share of fish stocks within biologically sustainable levels decreased from 90 percent in 1974, to 65.8 percent in 2017. Thus, 34.2 percent of fish stocks were estimated as fished at a biologically unsustainable level and therefore overfished. Global estimates indicate that IUU fishing counts between 11 million and 26 million tonnes each year, with an overall value between USD10–23 billion<sup>2</sup>. Combatting IUU fishing is now firmly on the agenda of leading political initiatives. The United Nations (UN) Sustainable Development Goal (SDG) 14.4, which specifically calls for an end to IUU fishing, together with implementing science-based management plans and effectively regulating harvesting, represents an essential component to restore fish stocks.

Further benefits and the sustainability of fisheries can only be achieved through more cautious and effective fisheries and aquaculture management, with main emphasis in maintaining fully exploited fishery resources and recovering those that are overexploited or depleted. Knowledge of the status and trends of the sector, not limited to production, but encompassing the entire value chain, is key to both sound policy-making and to assess and track the performance of responsible fisheries management. The limited availability of information often constrains policy-making and planning. With information on fish stocks, governance and access to marine resources and markets, countries can gain a fuller picture of activities in their waters and design sound targeting policies to manage the sector. To better monitor the trends of the fishery and aquaculture sector, it is important that statistics are as precise, timely and detailed as possible.

---

<sup>1</sup> FAO. 2020. The State of World Fisheries and Aquaculture 2020. Sustainability in action. Rome. (also available at <http://www.fao.org/3/ca9229en/CA9229EN.pdf>)

<sup>2</sup> Agnew D.J., J. Pearce, G. Pramod, T. Peatman, R. Watson., J.R. Beddington (2009), "Estimating the worldwide extent of illegal fishing", *PLoS ONE*, Vol. 4(2).



Information often exists but is very fragmented, inaccessible (if not lost) or collected according to different standards. In many cases, the information is collected in isolation and without possibilities for linkages. This constitutes a major challenge to the implementation of cross-sectoral management. There is a need for integration among different data collection initiatives, across different sectors, and throughout the entire value chain, in particular for social and economic valuation in relation to sustainability. Such integration also entails the exchange of expertise and related methods and tools, while catering for particular requirements of aquatic resources.

In a context where information resources, expertise and tools are scattered among multiple organizations, mechanisms enabling efficient information networking are vital. In this respect, the following three components are deemed essential:

1. Enhance information standards and harmonization capacities to facilitate information exchange by enabling the use of common classifications, concepts and data structures;
2. Provide global, regional and national data and information sharing platforms. Existing technologies can manage and analyse huge amounts of data collected through a diversity of methods and sensors;
3. Enhance partnerships and other networking arrangements. This is vital as no single organization in isolation can cover all the requirements.<sup>3</sup>

## FAO AND CWP

FAO is the only source of global fisheries and aquaculture statistics, which represent a unique global asset for sector analysis and monitoring. The FAO Statistics Team of the Fisheries and Aquaculture Division (NFISS) is responsible for the collection, compilation, validation, analysis and dissemination of these statistics, which are structured within different data collections (capture and aquaculture production, fisheries commodities production and trade, fishers and fish farmers, fishing vessels and apparent fish consumption).

NFISS' vision is to ensure that policy making and management decisions in fisheries and aquaculture at global, regional and national levels are based on the best available scientific evidence, information and data.

NFISS' mission is to provide access to global statistics, cross-disciplinary knowledge and analysis on the fishery and aquaculture sector and to enhance the capacity of member states through the provision of standards, guidelines, tools, expertise and training on fishery and aquaculture statistics and information systems.

The structure of the classifications used by NFISS to collate fisheries and aquaculture statistics has been agreed within the Coordinating Working Party on Fisheries Statistics (CWP)<sup>4</sup>, of which FAO NFISS serves as Secretariat. Functional since 1960, under Article VI-2 of Basic Text of FAO, CWP provides a mechanism for the coordination of fishery statistical programs of regional fishery bodies and other

---

<sup>3</sup> For more information, see section on "Data needs for blue growth", in FAO. 2016.

<sup>4</sup> <http://www.fao.org/fishery/cwp/en>



inter-governmental organizations whose remit relates to fishery statistics. The CWP's main purposes are:

- Continually review fishery statistics requirements for research, policy-making and management;
- Agree on standard concepts, definitions, classifications and methodologies for the collection and collation of fishery statistics;
- Make proposals for the coordination and streamlining of statistical activities among relevant intergovernmental organizations.

Since 1960, and with particular emphasis in the last few years, CWP has been active in developing or adapting existing standards to the fishery and aquaculture sector, thus contributing to connecting scattered and multidisciplinary sources of statistics and data.

The CWP is composed of experts nominated by intergovernmental organizations which have a competence in fishery and aquaculture statistics. There are currently 19 participating organizations in the CWP, including SEAFDEC.

During the last few years, the CWP met every three years with intersessional meeting/s held between the main sessions. Although the initial focus was on fisheries, with the growing importance of aquaculture the Fishery Subject Group (CWP-FS) and the Aquaculture Subject Group (CWP-AS) were established during the twenty-third session of the CWP in 2010, in accordance with the CWP Rules of Procedure. These groups were created to enhance the effectiveness of the CWP to address issues specific to capture fisheries and to aquaculture.

The latest session of CWP (twenty-sixth Session: CWP26) was held in Rome, Italy in May 2019<sup>5</sup>, while the Intersessional Aquaculture and Fisheries Subject Group Meetings of CWP (CWP-IS) met in Copenhagen, Denmark between the 19<sup>th</sup> and 22<sup>nd</sup> June 2017. The 5<sup>th</sup> and 6<sup>th</sup> meetings of CWP-AS and the 26<sup>th</sup> and 27<sup>th</sup> meetings of the CWP-FS were held during the last intersessional meeting and prior to the Session in May 2019.

Selected recent and forthcoming issues and standards discussed within CWP are analysed in the following sections of the document.

---

<sup>5</sup> The documents discussed at CWP 26 and the report are available at <http://www.fao.org/fishery/nems/41102/en>



## CWP HANDBOOK OF FISHERY STATISTICAL STANDARDS

Since the source and reference documents related to the concepts and definitions used in fishery statistics were widely dispersed and not always readily available, in 1982 CWP proposed that a “Handbook of fishery statistics” be put together. Subsequently renamed as the “CWP Handbook of fishery statistical standards”, it covers a wide range of fishery statistical concepts, definitions, classifications and related matters as applied to fishery statistics by the international agencies. The main users are the CWP Member Agencies, national fisheries statistics offices, national administrations and other fishery agencies.

National systems might differ from those used internationally as they might have been developed for specific national purposes. However, it is important that national fisheries statistics programmes are coherent and consistent with common regional or inter-regional sets of statistical standards, and apply internationally recognized definitions, classifications and codes. The CWP Handbook of Fisheries Statistics Standards was created to serve as the basis for this integration and it is intended to assist in the development of national standards as logical extensions of the international standards. In its efforts to develop useful and practical systems, the CWP is consistently keeping these standards under review and welcomes the comments of the national authorities on the application of these international standards at the national level.

The current version of the Handbook is available at <http://www.fao.org/fishery/cwp/search/en>. It is largely based on the 1990 edition, but upgraded to a new IT framework with enhanced capacity of dynamic searching and an improved interface. Work is still being carried out to further expand its content.

The Handbook is a web-based document with continuous and timely updates, and with internal and external links to relevant information, including FAO Technical Reports. For those issues beyond the CWP’s expertise, the Handbook will follow UN or other authoritative sources for concepts and will introduce such issues in a way suitable to the fishery and aquaculture framework. The Handbook will continue to not only provide the single authorized standards and concepts, but also to show a range of them where no agreed standards exist. All updates to the Handbook will need to be approved by CWP.

The handbook contains six main components:

- General introduction including a presentation of the capture fisheries and aquaculture chapters
- General concepts applicable to all relevant statistics (mainly following FAO policy)
- Capture fisheries - specific concepts
- Aquaculture - specific concepts
- Socio-economic section
- Tools and resources

Work is also in progress to develop the CWP Catalogue, with classifications and Metadata Standards, which will include those endorsed or adopted by CWP as standards for fisheries statistics. It also illustrates a range of additional methodologies and practices in use by the CWP members in the case no standards exist.

The glossary represents a comprehensive set of definitions of the main data items presented in the Handbook. It also contains definitions of key terminology, concepts and commonly used acronyms.

References and additional bibliography contain the list of references and bibliography cited or suggested in each section of the Handbook.



## REVISION OF ISSCAAP

### ASFIS, ISSCAAP and role of FAO and CWP

One international adopted classification used to collect capture and aquaculture production statistics, regularly utilized by FAO, is the *List of Species for Fishery Statistics Purposes (ASFIS)*<sup>6</sup> that includes 13 060 species items in the 2021 version, selected according to their interest or relation to fisheries and aquaculture. Since 2000, the ASFIS list has been made available on the Internet to provide external users with a standardized codification system covering most of the species items related to fishery activities. The list is a part of the ASFIS Reference Series which includes the authority lists, rules and guidelines for Aquatic Sciences and Fisheries Abstracts (ASFA)<sup>7</sup>. For each species item stored in a record, the following descriptors<sup>8</sup> are available:

- *3-alpha code*
  - This is a code developed by the CWP for tabulations, questionnaires and publications in which the lack of space may impede the use of adequate descriptors in all the languages required;
  - The 3-alpha identifier is a unique code made of three letters that is widely used for the exchange of data with national correspondents and among fishery agencies;
  - It is assigned to a species item permanently (it is, thus, a permanent reference to that species item);
  - The 3-alpha code is issued only for species of commercial significance;
  - The three letters of the 3-alpha code are only sometimes related to the scientific or English name of the species items. In all other cases, the 3 letters are randomly assigned;
  - FAO is the depository agency for the 3-alpha codes: requests for information and for the allocation of a 3-alpha code to new species should be addressed to FAO.
- *ISSCAAP code*<sup>9</sup>
  - ISSCAAP stands for International Standard Statistical Classification for Aquatic Animals and Plants;
  - ISSCAAP classifies aquatic commercial species into 50 groups and nine divisions on the basis of their taxonomic, ecological and economic characteristics;
  - Currently, all species in the ASFIS List are classified by ISSCAAP group, with the exception of marine birds and snakes.
- *Taxonomic code*
  - The taxonomic code consists of five levels of aggregation (Main groupings, Orders, Families, Genera and Species);
  - Taxonomic information (scientific name, author(s), family, and higher taxonomic classification);
  - The taxonomic code is used by FAO for a more detailed classification of the species items and for sorting them out within each ISSCAAP group.

FAO is the depository agency for the classification and updating of ASFIS, but revision of ISSCAAP is done within the framework of CWP. The version currently in use of ISSCAAP is dated 2001, when a revision of the names and composition of the groups 33, 34 and 37 was implemented following a

<sup>6</sup> <http://www.fao.org/fishery/collection/asfis/en>

<sup>7</sup> <http://www.fao.org/fishery/asfa/en>

<sup>8</sup> [http://www.fao.org/fishery/static/ASFIS/ASFIS\\_Structure.pdf](http://www.fao.org/fishery/static/ASFIS/ASFIS_Structure.pdf)

<sup>9</sup> [http://www.fao.org/fishery/static/Yearbook/YB2014\\_CD\\_Master/root/capture/isscaap.pdf](http://www.fao.org/fishery/static/Yearbook/YB2014_CD_Master/root/capture/isscaap.pdf)

recommendation of the CWP19<sup>10</sup>. The CWP 26 approved a revision of ISSCAAP that needs to be further refined for its final endorsement.

### The rationale for the revision

The ISSCAAP classification is widely used for fisheries and aquaculture statistical dissemination and analysis. Through it, aquatic species can be aggregated in a standard format, allowing a better and more coherent utilization of data for monitoring, management and planning purposes. For example, the ISSCAAP classification is used by FAO in disseminating its fisheries and aquaculture data in FishstatJ, online query panel tools, and the Yearbook of Fisheries and Aquaculture and the Status of Fisheries and Aquaculture (SOFIA) publication.

The current number of groups under each division varies between three and nine. For data analysis purposes, a higher number of groups under a division is generally desirable to better illustrate the details of the species composition. The present structure does not accurately reflect the growing importance of aquaculture as it does not allow a detailed monitoring of the sector specific trends. Since the 2000 revision of the ISSCAAP classification, aquaculture production has significantly expanded, while capture fisheries have remained relatively stable. The dominance of freshwater species in aquaculture production (about two-thirds of the production) implies the need to add more groups and to revise some of the present ones. These changes would certainly improve the details and clarity of specific types of farmed species groups for data extraction and analysis.

Finfish, crustaceans and molluscs are the most important species for both capture and aquaculture production. However, the number of groups assigned to freshwater species and marine species under the corresponding divisions 1 and 3 for these species are greatly imbalanced. At present, excluding diadromous species, a total of only five groups is assigned to freshwater species vs 22 groups for marine species under ISSCAAP divisions 1, 3, 4 and 5.

### CWP involvement

Taking into account the need to have a better representativeness of aquaculture species in the ISSCAAP classification, the CWP-AS started to discuss this issue in the intersessional period between CWP sessions 24 and 25 and reported its findings at CWP25 in February 2016. CWP-AS recognized that the existing ISSCAAP groupings were not necessarily effective in addressing the need to describe aquaculture production. It also noted that the national and international statistical institutes often created ad-hoc arbitrary species groupings according to their own needs. On the other hand, it also recognized the benefits of establishing well-balanced species groupings with appropriate hierarchies for enhancing harmonization and comparability of global statistics, in particular to support the cases where species-level identification of statistics would cause pragmatic difficulties. Since the issue had relevance for both aquaculture and capture fisheries statistics, the CWP-AS proposed to establish a Task Group for reviewing and developing a proposed revision of the ISSCAAP groupings to be presented at the next Session of CWP in 2019.

---

<sup>10</sup> In the revision, the species items of the former group 33 "Redfishes, basses, congers" were classified as coastal or demersal fishes and accordingly assigned to the new groups 33 "Miscellaneous coastal fishes" and 34 "Miscellaneous demersal fishes". The species formerly included in group 34 "Jacks, mullets, sauries" were moved to group 37, which was renamed "Miscellaneous pelagic fishes". For further information see FAO report on ISSCAAP groups (pages 42-49 at [http://www.fao.org/fi/static-media/MeetingDocuments/cwp/cwp\\_19/CWP-19-FAO.pdf](http://www.fao.org/fi/static-media/MeetingDocuments/cwp/cwp_19/CWP-19-FAO.pdf)) presented at CW19 and the ISSCAAP's revision endorsed by the CWP (page 23 of the CWP Report (<http://www.fao.org/3/a-y2606e.pdf>))



This proposal was accepted by CWP25, with the indication that the proposal for revision should address the following objectives:

- establishing well-balanced species groupings with appropriate hierarchies for enhancing global harmonization and comparability of statistics;
- securing adequate level of segregation of freshwater farmed species;
- mitigating confidentiality, without losing comparability among data collected;
- the proposal will have to take into account a proper balance between CWP-AS and CWP-FS groups.

#### Preliminary findings and proposal: criteria followed

During the CWP intersessional meeting held in June 2017, the preliminary findings of the analysis undertaken on the ISSCAAP classification were presented, together with a first draft of a potential new structure. The preliminary findings highlighted that some important species and species groups need to be separately reported and that the label of some of the current groups should be modified in order to improve the clarity of the classification and avoid any potential confusion. The proposal included the creation of new ISSCAAP Groups under six divisions, and the revision of the names of several currently existing groups.

The criteria used for the proposed revision was the same utilized for the creation of the current ISSCAAP version, which include, among others, the taxonomic classification of aquatic species, the type of water as natural habitat of the species according to the salinity (freshwater vs marine water) and the behaviour and economic importance of the species. In addition, this proposal also took into consideration the feeding habit of the aquatic animal species, which is of vital importance in aquaculture.

In examining the proposal at the intersessional meeting in June 2017, CWP-AS supported the proposal, but recommended to hold further technical consultation with experts and data users with regard to the revisions, and to also submit the proposal to the CWP-FS group. It was decided that FAO would take the lead on this discussion and invite other CWP Members, including SEAFDEC, for an active participation and involvement in the revision process.

At the meetings of the Aquaculture Subject Group in May 2019 a revised proposal was submitted that then was approved by CWP26. Yet, some issues in terms of names and coding were still present and CWP indicated that

#### The proposal in detail

In examining the proposed amendments in detail, it is important to highlight that the proposal is still in a preliminary phase and more work and consultation is needed to further improve it. In addition the reported new numbering should not be taken into account at this stage as it is arbitrary. The proposed additions/revisions are highlighted in grey. More detailed information can be found at [http://www.fao.org/fi/static-media/MeetingDocuments/cwp/cwp\\_26/2e.pdf](http://www.fao.org/fi/static-media/MeetingDocuments/cwp/cwp_26/2e.pdf) and the one approved by CWP at Appendix 6 at <http://www.fao.org/3/ca6684en/ca6684en.pdf>

**Division 1: Freshwater fishes**

Current	Potential revision
<p><b>1 Freshwater fishes</b></p> <p>11 Carps, barbels and other cyprinids</p> <p>12 Tilapias and other cichlids</p> <p>13 Miscellaneous freshwater fishes</p>	<p><b>1 Freshwater fishes</b></p> <p>Carps, barbels, <b>river suckers</b></p> <p><b>Loaches and hillstream loaches</b></p> <p>Tilapias and other cichlids</p> <p><b>Freshwater catfishes</b></p> <p><b>Freshwater perches and basses</b></p> <p><b>Snakeheads</b></p> <p><b>Characins</b></p> <p><b>Swamp eels and spiny eels</b></p> <p>Miscellaneous freshwater fishes</p>

**Division 2: Diadromous species**

Current	Potential revision
<p><b>2 Diadromous fishes</b></p> <p>21 Sturgeons, paddlefishes</p> <p>22 River eels</p> <p>23 Salmons, trouts, smelts</p> <p>24 Shads</p> <p>25 Miscellaneous diadromous fishes</p>	<p><b>2 Diadromous and euryhaline fishes</b></p> <p>Sturgeons, paddlefishes</p> <p><b>Anguilla</b> eels</p> <p>Salmons, trouts, smelts</p> <p>Shads</p> <p><b>Milkfish, mullets</b></p> <p><b>Euryhaline puffer fishes</b></p> <p>Miscellaneous diadromous <b>and euryhaline</b> fishes</p>

Note:

A number of euryhaline finfish species, including milkfish, mullets, barramundi and Japanese seabass, are globally important species for aquaculture in terms of volume. Their separation into different ISSCAAP Groups is based on their feeding habits.



For the re-assignment of species into the proposed group 26, species such like Milkfish need to be removed from "Group 25 Miscellaneous diadromous fishes" and mullets from "Miscellaneous coastal fishes".

For the re-assignment of species Barramundi need to be removed from "Group 25 Miscellaneous diadromous fishes" and Japanese seabass from "Miscellaneous coastal fishes".

**Division 3: Marine fishes**

Current	Potential revision
<p><b>3 Marine fishes</b></p> <p>31 Flounders, halibuts, soles</p> <p>32 Cods, hakes, haddocks</p> <p>33 Miscellaneous coastal fishes</p> <p>34 Miscellaneous demersal fishes</p> <p>35 Herrings, sardines, anchovies</p> <p>36 Tunas, bonitos, billfishes</p> <p>37 Miscellaneous pelagic fishes</p> <p>38 Sharks, rays, chimaeras</p> <p>39 Marine fishes not identified</p>	<p><b>3 Marine fishes</b></p> <p>31 Flounders, halibuts, soles <b>and other flatfishes</b></p> <p>32 Cods, hakes, haddocks</p> <p>33 Miscellaneous coastal fishes</p> <p>34 Miscellaneous demersal fishes</p> <p>35 Herrings, sardines, anchovies</p> <p>36 Tunas, bonitos, billfishes</p> <p>37 Miscellaneous pelagic fishes</p> <p>38 Sharks, rays, chimaeras</p> <p>39 Marine fishes not identified</p>



**Division 4: Crustaceans**

Current	Potential revision
<p><b>4 Crustaceans</b></p> <p>41 Freshwater crustaceans</p> <p>42 Crabs, sea-spiders</p> <p>43 Lobsters, spiny-rock lobsters</p> <p>44 King crabs, squat-lobsters</p> <p>45 Shrimps, prawns</p> <p>46 Krill, planktonic crustaceans</p> <p>47 Miscellaneous marine crustaceans</p>	<p><b>4 Crustaceans</b></p> <p><b>Freshwater shrimps and prawns</b></p> <p><b>Freshwater crayfishes</b></p> <p><b>Miscellaneous freshwater crustaceans</b></p> <p><b>Marine</b> crabs, sea-spiders</p> <p>Lobsters, spiny-rock lobsters</p> <p>King crabs, squat-lobsters</p> <p><b>Marine</b> shrimps <b>and</b> prawns</p> <p>Krill, <b>marine</b> planktonic crustaceans</p> <p>Miscellaneous marine crustaceans</p>

**Division 5: Molluscs**

Current	Potential revision
<p><b>5 Molluscs</b></p> <p>51 Freshwater molluscs</p> <p>52 Abalones, winkles, conchs</p> <p>53 Oysters</p> <p>54 Mussels</p> <p>55 Scallops, pectens</p> <p>56 Clams, cockles, arkshells</p> <p>57 Squids, cuttlefishes, octopuses</p> <p>58 Miscellaneous marine molluscs</p>	<p><b>5 Molluscs</b></p> <p>51 Freshwater molluscs</p> <p>52 Abalones, winkles, conchs <b>and other sea snails</b></p> <p>53 Oysters</p> <p>54 <b>Sea</b> Mussels</p> <p>55 Scallops, pectens</p> <p>56 Clams, cockles, arkshells <b>and other bivalves</b></p> <p>57 Squids, cuttlefishes, octopuses</p> <p>58 Miscellaneous marine molluscs</p>

**Division 6: Whales, seals and other aquatic mammals**

Current	Potential revision



<p><b>6 Whales, seals and other aquatic mammals</b></p> <p>61 Blue-whales, fin-whales</p> <p>62 Sperm-whales, pilot-whales</p> <p>63 Eared seals, hair seals, walruses</p> <p>64 Miscellaneous aquatic mammals</p>	<p><b>6 Whales, seals and other aquatic mammals</b></p> <p>61 Blue-whales, fin-whales</p> <p>62 Sperm-whales, pilot-whales</p> <p>63 Eared seals, hair seals, walruses</p> <p>64 Miscellaneous aquatic mammals</p>
--	--

**Division 7: Miscellaneous aquatic animals**

<b>Current</b>	<b>Potential revision</b>
<p><b>7 Miscellaneous aquatic animals</b></p> <p>71 Frogs and other amphibians</p> <p>72 Turtles</p> <p>73 Crocodiles and alligators</p> <p>74 Sea-squirts and other tunicates</p> <p>75 Horseshoe crabs and other arachnoids</p> <p>76 Sea-urchins and other echinoderms</p> <p>77 Miscellaneous aquatic invertebrates</p>	<p><b>7 Miscellaneous aquatic animals</b></p> <p>71 Frogs, <b>salamanders</b> and other amphibians</p> <p>72 Turtles</p> <p>73 Crocodiles, alligators <b>and caimans</b></p> <p>74 Sea-squirts and other tunicates</p> <p>75 Horseshoe crabs and other arachnoids</p> <p>76 Sea-urchins and other echinoderms</p> <p><b>Sea cucumbers</b></p> <p><b>Marine worms</b></p> <p>Miscellaneous aquatic invertebrates</p>

**Division 8: Miscellaneous aquatic animal products**

Current	Potential revision
<b>8 Miscellaneous aquatic animal products</b>	<b>8 Miscellaneous aquatic animal products</b>
81 Pearls, mother-of-pearl, shells	81 Pearls, mother-of-pearl, shells
82 Corals	82 Corals
83 Sponges	83 Sponges

**Division 9: Aquatic plants**

Current	Potential revision
<b>9 Aquatic plants</b>	<b>9 Aquatic plants</b>
91 Brown seaweeds	Brown <b>algae</b>
92 Red seaweeds	Red <b>algae</b>
93 Green seaweeds	<b>Marine macro green algae</b>
94 Miscellaneous aquatic plants	<b>Aquatic Cyanobacteria (blue-green algae)</b>
	<b>Miscellaneous aquatic micro-algae</b>
	<b>Miscellaneous aquatic macrophytes</b>
	Miscellaneous aquatic plants



#### PRELIMINARY CATEGORIZATION OF AQUACULTURE FARMING METHODS

At CWP 26, a preliminary structured list of aquaculture farming systems (culture methods) was presented as baseline information and reference to update the international aquaculture farming systems classification in use since the 1980s. The list is structured with hierarchy levels under 12 categories based on a set of criteria and consideration

1. Earthen ponds
2. Tanks and raceways
3. Man-made and semi man-made water bodies
4. Lakes, lagoons and other natural water bodies
5. Cages
6. Pens and enclosures
7. RAS (recirculating aquaculture systems)
8. Rice-Fish culture and integration with other aquatic crop plantation
9. Culture methods for shelled molluscs
10. Culture methods for seaweeds
11. Culture methods for microalgae
12. Other culture methods

#### Adjusted exhaustive list of aquaculture farming methods

##### 1 Earthen ponds

- excavated or constructed earthen ponds (usually of regular shape)
  - modified or renovated natural ponds (often less regular in shape and larger in size)
- earthen ponds without lining
- earthen ponds with lining
  - lined with synthetic material
  - lined with cement and other materials
- rain-fed undrainable earthen ponds
- irrigated and drainable earthen ponds
  - irrigated with surface water
  - irrigated with underground water
  - irrigated with brackish or sea water
  - irrigated with underground sea water
- earthen pond monoculture
- earthen pond polyculture
  - in-pond mixed polyculture
  - partitioned pond polyculture
    - pond polyculture with species partitioned by net or fence
    - pond polyculture with species partitioned with cages or happas
    - pond polyculture with species partitioned with baskets or boxes on floating racks

- earthen pond culture without in-pond integration
- earthen pond culture with in-pond integration
  - in-pond integration with aquatic vegetable planted on pond bottom
  - in-pond integration with floating aquatic plants
  - in-pond integration with plant crops on floating beds
- earthen ponds without aeration
- earthen ponds with aeration
  - aerated with floating aerator, paddle wheel or air-jet
  - aerated with on-bottom nano-hose aeration
- earthen pond culture without effluent treatment for discharge
- earthen pond culture with effluent treatment for discharge
  - effluent treated on farm with manufactured facilities and equipment
  - effluent treated with uses of extra ponds for sedimentation and bio-treatment
  - effluent treated with on-farm uses of extra ponds for treatment
  - effluent treated with communal uses of extra ponds for treatment
- earthen pond with in-pond raceway recirculating system
  - with in-pond raceway recirculating system built on bottom
  - with in-pond raceway recirculating system floating above bottom
- earthen pond with out-of-pond tank recirculating system
- partitioned pond system & split-pond system
- openly exposed earthen ponds
- greenhouse-covered earthen ponds
  - earthen ponds covered with greenhouse of permanent manufactured structure
  - earthen ponds covered with greenhouse of temporary structures
- earthen ponds with steep dykes
- earthen ponds with exposed area for other related uses
  - Earthen ponds with area for sunbath or feeding of farmed animals (turtles, frogs, etc.)
  - Earthen ponds with area for green folder plantation for feeding farmed animals in ponds
- earthen ponds irrigated without heating or cooling
- earthen ponds irrigated with heating or cooling
  - earthen ponds irrigated and heated
    - earthen ponds irrigated and heated with geothermal energy
    - earthen ponds irrigated and heated with other energy (e.g. power plant waste hot water)
- earthen ponds irrigated and cooled
  - earthen ponds irrigated and cooled with cold water from LNG regasification terminal
  - earthen ponds irrigated and cooled with OTEC deep sea water

## **2 Tanks and raceways**

### raceways

- raceways of permanent construction (cement and bricks, etc.)
- raceways constructed with removable structure and materials
- traditional stone walled flow-through tanks in mountainous regions



raceways openly exposed  
raceways under roof or covering  
raceways in greenhouse  
    raceways in greenhouse of permanent manufactured structure  
    raceways in greenhouse of temporary structures

tanks  
    tanks of permanent construction (cement and bricks, etc.)  
    tanks constructed with removable structure and materials  
    tanks manufactured by industry

tanks openly exposed  
tanks under roof or covering  
tanks in greenhouse  
    tanks in greenhouse of permanent manufactured structure  
    tanks in greenhouse of temporary structures

\* additional filter by type water used for raceways and tanks:  
    surface water, pumped or diverted  
    underground water  
    brackish or sea water  
    underground sea water

### **3 Man-made and modified water bodies used for aquaculture**

small reservoirs, dammed water bodies and barrages  
irrigation canals and ditches  
borrow pits and dugouts  
ex-mining pools  
impounded land depression areas (caused by mining, etc.)  
crop farm ponds and farm reservoirs  
small lagoons or salt marshes modified with water management facilities like water gates  
valliculture and jiwei (gei-wai), etc.

\* *additional filter by period of impoundment in the year  
of permanent impoundment  
of seasonal impoundment*

### **4 Lakes and other natural water bodies used for aquaculture**

lakes  
oxbow lakes (locally called "boars" in Bangladesh and West Bengal, India)  
wetland (locally called "beel" or "beal" in Bangladesh and India)  
seasonal flood plains  
seasonal lakes (locally called seasonal tanks in Sri Lanka)  
potholes (in North America)

\* *additional filter by period of impoundment in the year if needed*

*of permanent impoundment*  
*of seasonal impoundment*

## **5 Cages**

traditional / conventional net cages

- stationary traditional / conventional net cages in shallow waters
- floating traditional / conventional net cages
- traditional wooden / bamboo cages

modern net cages

metal framed floating net cages ( HDPE = high-density polyethylene)

metal mesh cages

perforated metal sheet cages

flexible framed floating net cages

HDPE framed floating net cages ( HDPE = high-density polyethylene)

- with on-the-spot monitoring, control and management platform
- without off-the-spot land-based monitoring, control and management
- modern net cages of synthetic netting materials
- modern net cages of copper alloy wire net fitting

modern net cages installed in protected coastal area or inside fjords

modern net cages installed in exposed offshore area

modern net cages without fish waste collection devices for disposal/treatment on land

modern net cages with fish waste collection devices for disposal/treatment on land

ultra-modern net cages (engineered/manufactured with latest tech and automation)

floating (or semi-submersible) ultra-modern net cages

fully submersible or bottom-sitting ultra-modern net cages

## **6 Pens and enclosures**

traditional net pens supported with poles

modern net pens with fortified supporting frame

enclosures without supporting poles or frame

enclosures supported with poles or frame

## **7 Recirculation aquaculture systems (RAS) with manufactured equipment**

RAS system with tailored design and manufactured facilities and equipment

single storey large rearing tank installation

multiple storey small-to-medium rearing tank installation

stacked multi-storey boxes for individual rearing of aquatic animals (crab condominium)

RAS system using modified recycled structures (out-of-use shipping containers, etc.)

aquaponics

commercial scale aquaponics system



small backyard scale aquaponics system

### **8 Rice-fish culture and other integrated farming systems with plant crop**

rice-fish culture

- rice-fish culture in conventional rice field (paddy)
  - rotational rice-fish culture
  - rice-fish co-culture
- rice-fish culture in renovated rice field (paddy) to suit aquaculture
  - rotational culture
  - co-culture

rice-fish culture without artificial feeding

rice-fish culture with artificial feeding

farming integrated with other aquatic plant crops

- integration with aquatic vegetables
- integration with aquatic herbs, flower, etc.

### **9 Culture of shelled molluscs (and benthic animals like sea cucumber & sea urchins)**

on-bottom culture

- sea ranching - seeds sowed at seabed
- inter-tidal mudflat - seeded sowing (shelled molluscs)  
*(polyculture with other species in coastal earthen ponds is also commonly practiced)*  
*(culture of gastropod molluscs in tanks is also commonly practiced)*

off-bottom culture

- longline ropes (suspended vertically in column) with anchors and buoyance
- net bags on stationery racks installed in inter-tidal zone or in shallow sea
- baskets or trays on stationery racks installed in inter-tidal zone or in shallow sea
- rafts (with seeded ropes for culture attached)
- poles (of rock, cement, bamboos and other materials)
- lantern net cages suspended from floating longline or raft (mostly for scallops)
- perforated plastic boxes suspended from floating longline or raft
- abalone houses in floating net cages
- automated truss-structured abalone culture platform (modern high-tech)

### **10 Culture of marine macroalgae (seaweeds)**

- longline ropes (suspended horizontally or vertically in the sea) with anchors and buoyance
- web or net of ropes fixed on stationery racks or poles typically in inter-tidal areas
- rafts or floating racks (with seeded ropes for culture attached)
- floating baskets (chained with ropes; seaweeds protected from grazing animals)
- sleeve shaped long net bags (seaweed seedling held inside)
- suspended net trays (mostly for sea grapes)
- (tanks are used, too)



**11 Culture of microalgae (including cyanobacteria, etc.)**

plastic bags (transparent)  
closed biophotoreactors systems (tubes or flat panels)  
(raceways and tanks are more commonly used)  
(tanks also used)

**12 Other culture methods**

specified with description for data collection / reporting  
    close containment culture system (in the sea, lake or reservoirs)  
    fish culture vessels  
        modified from decommissioned cargo ships  
        purposely designed and constructed fish culture vessels  
not specified for data collection / reporting

## INTERNATIONAL STANDARD STATISTICAL CLASSIFICATION OF FISHERY VESSELS (ISSCFV) BY VESSEL

The International Standard Statistical Classification of Fishing Vessels (ISSCFV) by vessel types, based on the type of gear used by the vessels, was first approved at the 12th Session of the Coordinating Working Party on Fishery Statistics Copenhagen, Denmark, 25 July-1 August 1984. The classification was revised in 2005, further amended in 2007 and 2019 and finally endorsed at CWP 26 in 2019.

For the revised structure, careful emphasis was made that the ISSCFV categories should be based on consideration of vessel structural characteristics, while modernizing some categories to better reflect vessel types currently used in fisheries. The classification also moved to a two-level hierarchy and this allowed for the streamlining of the classification to be accomplished while the creation of a flexible third level that can be customized allows for specific vessel types to be accommodated, as needed. In this way local vessel type categories can be implemented by the countries to meet their needs while still freeing the classification from becoming too broad in order to cover all eventualities

The structure of the classification is provided below in Table 1, while Table 2 shows the comparison between the 2005 and the 1984 version is re

Table 1: ISSCFV 2005 endorsed in 2019

	ISSCFV 2005 (including 2007 amendment) revision		ISSCFV Code	Standard Abbreviation
	Fishing Vessel Category	Fishing Vessel Category Sub-Category		
Fishing vessels	<b>Trawlers</b>		<b>1</b>	<b>TO</b>
		Otter trawlers	1.1	OT
		Pair trawlers	1.2	PT
		Beam trawlers	1.3	BT
		Side trawlers	1.4	TS
		Stern trawlers	1.5	TT
		Trawlers nei	1.9	TOX
	<b>Purse seiners</b>		<b>2</b>	<b>SP</b>
		Purse Seiners - American type	2.1	SPA
		Purse Seiners - European type	2.2	SPE
		Drum seiners	2.3	SPD
		Purse seiners nei	2.9	SPX
	<b>Seiners (other)</b>		<b>3</b>	<b>SO</b>
		Seiners nei	3.9	SOX
	<b>Dredgers</b>		<b>4</b>	<b>DO</b>
		Dredgers nei	4.9	DOX
	<b>Lift netters</b>		<b>5</b>	<b>NO</b>
		Stick-held dip netters	5.1	NS

ISSCFV 2005 (including 2007 amendment) revision		ISSCFV Code	Standard Abbreviation
Fishing Vessel Category	Fishing Vessel Category Sub-Category		
	Lift netters nei	5.9	NOX
<b>Gillnetters</b>	Drifters	6	<b>GO</b>
	Set netters	6.1	GD
	Gillnetters nei	6.2	GS
		6.9	GOX
<b>Trap setters</b>	Pot vessels	<b>7</b>	<b>WO</b>
	Trap setters nei	7.1	WP
		7.9	WOX
<b>Longliners</b>	Bottom longliners	<b>8</b>	<b>LL</b>
	Midwater longliners	8.1	LB
	Longliners nei	8.2	LM
		8.9	LLX
<b>Line vessels (other)</b>	Jigger vessels	<b>9</b>	<b>LO</b>
	Pole and Line vessels	9.1	LJ
	Trollers	9.2	LP
	Hand liner vessels	9.3	LT
	Line vessels nei	9.4	LH
		9.9	LOX
<b>Multipurpose vessels</b>	Purse seine/pelagic trawlers	<b>10</b>	<b>MO</b>
	Multipurpose trawlers (in combination with longline, trap, gillnet, dredge)	10.1	MTS
	Multipurpose non trawlers (longline, gillnet, trap)	10.2	MTW
	Multipurpose vessels nei	10.3	MLG
<b>Recreational fishing vessels</b>		10.9	MOX
	Recreational fishing vessels nei	<b>18</b>	<b>RO</b>
<b>Other fishing vessels</b>		18.9	ROX
	Other fishing vessels nei	<b>19</b>	<b>FX</b>
		19.9	FXX



	ISSCFV 2005 (including 2007 amendment) revision		ISSCFV Code	Standard Abbreviation
	<i>Fishing Vessel Category</i>	<i>Fishing Vessel Category Sub-Category</i>		
<b>Vessels supporting fishing related activities</b>	<b>Motherships</b>	Motherships nei	<b>20</b> 20.9	<b>HO</b> HOX
	<b>Fish carriers and reefers</b>	Refrigerated transport vessels	<b>21</b> 21.1	<b>FO</b> FR
		Fish carriers and reefers nei	21.9	FOX
	<b>Support vessels</b>	Bunkering tanker vessels	<b>23</b> 23.1	<b>SA</b> SB
		Towing vessels	23.2	ST
		Support and auxiliary ships nei	23.9	SAX
	<b>Fishery research and survey vessels</b>		<b>25</b>	<b>RT</b>
		Fishery research and survey vessels nei	25.9	RTX
	<b>Patrol vessels</b>		<b>26</b>	<b>PX</b>
		Patrol vessels nei	26.9	PXX
<b>Fishery training vessels</b>		<b>27</b>	<b>CO</b>	
	Fishery training vessels	27.9	<b>COX</b>	
<b>Vessels supporting fishing related activities</b>	Multipurpose vessels supporting fishing related activities	<b>29</b> 29.1	<b>VO</b> VOM	
	Vessels supporting fishing related activities, nei	29.9	VOX	

Table 2. Comparison of ISSCFV 1984 and ISSCFV 2005

ISSCFV 1984		ISSCFV Code	Standard Abbreviation	ISSCFV 2005 (including 2007 amendment) revision		ISSCFV Code	Standard Abbreviation
<i>Fishing Vessel Category</i>	<i>Fishing Vessel Sub-Category</i>			<i>Fishing Vessel Category</i>	<i>Fishing Vessel Sub-Category</i>		
<b>Trawlers</b>		<b>01.0.0</b>	<b>TO</b>	<b>Trawlers</b>		<b>1</b>	<b>TO</b>
<b>Trawlers</b>	Side trawlers	01.1.0	TS	<b>Trawlers</b>	Side trawlers	1.4	TS
<b>Trawlers</b>	Side trawlers wet-fish	01.1.1	TSW	<b>Trawlers</b>	Trawler nei	1.9	TOX
<b>Trawlers</b>	Side trawlers freezer	01.1.2	TSF	<b>Trawlers</b>	Trawler nei	1.9	TOX
<b>Trawlers</b>	Stem trawlers	01.2.0	TT	<b>Trawlers</b>	Stem trawlers	1.5	TT
<b>Trawlers</b>	Stem trawlers wet-fish	01.2.1	TTW	<b>Trawlers</b>	Trawler nei	1.9	TOX
<b>Trawlers</b>	Stem trawlers freezer	01.2.2	TTF	<b>Trawlers</b>	Trawler nei	1.9	TOX
<b>Trawlers</b>	Stem trawlers factory	01.2.3	TTP	<b>Trawlers</b>	Trawler nei	1.9	TOX
<b>Trawlers</b>	Outrigger trawlers	01.3.0	TU	<b>Trawlers</b>	Otter trawlers	1.1	OT
				<b>Trawlers</b>	Pair trawlers	1.2	PT
				<b>Trawlers</b>	Beam trawlers	1.3	BT
				<b>Trawlers</b>	Trawler nei	1.9	TOX
<b>Trawlers</b>	Trawler nei	01.9.0	TOX	<b>Trawlers</b>	Trawler nei	1.9	TOX
<b>Seiners</b>		<b>02.0.0</b>	<b>SO</b>	<b>Seiners (other)</b>		<b>3</b>	<b>SO</b>
<b>Seiners</b>	Purse seiners	02.1.0	SP	<b>Purse seiners</b>	Purse Seiners - American type	2.1	SPA
				<b>Purse seiners</b>	Purse Seiners - European type	2.2	SPE
				<b>Purse seiners</b>	Drum seiners	2.3	SPD
				<b>Purse seiners</b>	Purse seiners nei	2.9	SPX
<b>Seiners</b>	North American type	02.1.1	SPA	<b>Purse seiners</b>	Purse Seiners - American type	2.1	SPA
<b>Seiners</b>	European type	02.1.2	SPE	<b>Purse seiners</b>	Purse Seiners - European type	2.2	SPE
<b>Seiners</b>	Tuna purse seiners	02.1.3	SPT	<b>Purse seiners</b>	Purse Seiners - American type	2.1	SPA
				<b>Purse seiners</b>	Purse Seiners - European type	2.2	SPE
				<b>Purse seiners</b>	Purse seiners nei	2.9	SPX
<b>Seiners</b>	Seiner netters	02.2.0	SN	<b>Purse seiners</b>	Purse seiners nei	2.9	SPX
<b>Seiners</b>	Seiner nei	02.9.0	SOX	<b>Purse seiners</b>	Purse seiners nei	2.9	SPX
				<b>Seiners (other)</b>	Seiners nei	3.9	SOX
<b>Dredgers</b>		<b>03.0.0</b>	<b>DO</b>	<b>Dredgers</b>		<b>4</b>	<b>DO</b>
<b>Dredgers</b>	using boat dredge	03.1.0	DB	<b>Dredgers</b>	Dredgers nei	4.9	DOX
<b>Dredgers</b>	using mechanical dredge	03.2.0	DM	<b>Dredgers</b>	Dredgers nei	4.9	DOX
<b>Dredgers</b>	Dredgers nei	03.9.0	DOX	<b>Dredgers</b>	Dredgers nei	4.9	DOX
<b>Lift netters</b>		<b>04.0.0</b>	<b>NO</b>	<b>Lift netters</b>		<b>5</b>	<b>NO</b>
<b>Lift netters</b>	using boat operated net	04.1.0	NB	<b>Lift netters</b>	Lift netters nei	5.9	NOX



ISSCFV 1984		ISSCFV Code	Standard Abbreviation	ISSCFV 2005 (including 2007 amendment) revision		ISSCFV Code	Standard Abbreviation
<i>Fishing Vessel Category</i>	<i>Fishing Vessel Sub-Category</i>			<i>Fishing Vessel Category</i>	<i>Fishing Vessel Sub-Category</i>		
Lift netters	Lift netters nei	04.9.0	BOX	Lift netters	Lift netters nei	5.9	NOX
Gillnetters		05.0.0	GO	Gillnetters		6	GO
				Gillnetters	Drifters	6.1	GD
				Gillnetters	Set netters	6.2	GS
				Gillnetters	Gillnetters nei	6.9	GOX
Trap setters				Trap setters		7	WO
	Pot vessels	06.1.0	WOP		Pot vessels	7.1	WP
	Trap setters nei	06.9.0	WOX		Trap setters nei	7.9	WOX
Liners		07.0.0	LO	Longliners		8	LL
				Line vessels (other)		9	LO
Liners	Handliners	07.1.0	LH	Line vessels (other)	Line vessels nei	9.9	LOX
Liners	Longliners	07.2.0	LL	Longliners	Bottom longliners	8.1	LB
				Longliners	Midwater longliners	8.2	LM
				Longliners	Longliners nei	8.9	LLX
Liners	Tuna longliners	07.2.1	LLT	Longliners	Midwater longliners	8.2	LM
				Longliners	Longliners nei	8.9	LLX
Liners	Pole and line vessels	07.3.0	LP	Line vessels (other)	Line vessels nei	9.9	LOX
Liners	Japanese type	07.3.1	LPJ	Line vessels (other)	Line vessels nei	9.9	LOX
Liners	American type	07.3.2	LPA	Line vessels (other)	Line vessels nei	9.9	LOX
Liners	Trollers	07.4.0	LT	Line vessels (other)	Trollers	9.3	LT
Liners	Liners nei	07.9.0	LOX	Longliners	Bottom longliners	8.1	LB
				Longliners	Midwater longliners	8.2	LM
				Longliners	Longliners nei	8.9	LLX
				Line vessels (other)	Jigger vessels	9.1	LJ
				Line vessels (other)	Pole and Line vessels	9.2	LP
				Line vessels (other)	Trollers	9.3	LT
				Line vessels (other)	Hand liner vessels	9.4	LII
				Line vessels (other)	Line vessels nei	9.9	LOX
Vessels using pumps for fishing		08.0.0	PO	Multipurpose vessels		10	MO
Multipurpose vessels		09.0.0	MO	Multipurpose vessels		10	MO
Multipurpose vessels	Seiner-handliners	09.1.0	MSN	Multipurpose vessels	Multipurpose non trawlers (longline, gillnet, trap)	10.3	MLG

ISSCFV 1984		ISSCFV Code	Standard Abbreviation	ISSCFV 2005 (including 2007 amendment) revision		ISSCFV Code	Standard Abbreviation
<i>Fishing Vessel Category</i>	<i>Fishing Vessel Sub-Category</i>			<i>Fishing Vessel Category</i>	<i>Fishing Vessel Sub-Category</i>		
<b>Multipurpose vessels</b>	Trawler-purse seiners	09.2.0	MTS	<b>Multipurpose vessels</b>	Purse seine/pelagic trawlers	10.1	MTS
<b>Multipurpose vessels</b>	Trawler-drifters	09.3.0	MTG	<b>Multipurpose vessels</b>	Multipurpose trawlers (in combination with longline, trap, gillnet, dredge)	10.2	MTW
<b>Multipurpose vessels</b>	Multipurpose vessels nei	09.9.0	MOX	<b>Multipurpose vessels</b>	Multipurpose vessels nei	10.9	MOX
<b>Recreational fishing vessels</b>		10.0.0	RO	<b>Recreational fishing vessels</b>		<b>18</b>	<b>RO</b>
					Recreational fishing vessels nei	18.9	ROX
<b>Fishing vessels not specified</b>		49.0.0	FX	<b>Other fishing vessels</b>		<b>19</b>	<b>FX</b>
					Other fishing vessels nei	19.9	FXX
<b>Motherships</b>		11.0.0	HO	<b>Motherships</b>		<b>20</b>	<b>HO</b>
<b>Motherships</b>	Salted-fish motherships	11.1.0	HSS	<b>Motherships</b>	Motherships nei	20.9	HOX
<b>Motherships</b>	Factory motherships	11.2.0	HSF	<b>Motherships</b>	Motherships nei	20.9	HOX
<b>Motherships</b>	Tuna motherships	11.3.0	IIST	<b>Motherships</b>	Motherships nei	20.9	IIOX
<b>Motherships</b>	Motherships for two-boat	11.4.0	HSP	<b>Motherships</b>	Motherships nei	20.9	HOX
<b>Motherships</b>	Purse seining Motherships nei	11.9.0	HOX	<b>Motherships</b>	Motherships nei	20.9	HOX
<b>Fish carriers</b>		12.0.0	FO	<b>Fish carriers and reefers</b>		<b>21</b>	<b>FO</b>
					Refrigerated transport vessels	21.1	FR
					Fisher carriers and reefers nei	21.9	FOX
<b>Hospital ships</b>		13.0.0	KO	<b>Non-fishing vessels nei</b>		<b>29</b>	<b>VOX</b>
<b>Protection and survey vessels</b>		14.0.0	BO	<b>Patrol vessels</b>		<b>26</b>	<b>PX</b>
					Patrol vessels nei	26.9	PXX
<b>Fishery research vessels</b>		15.0.0	ZO	<b>Fishery research and survey vessels</b>		<b>25</b>	<b>RT</b>
					Fishery research and survey vessels nei	25.9	RTX
<b>Fishery training vessels</b>		16.0.0	CO	<b>Fishery training vessels</b>		<b>27</b>	<b>CO</b>
					Fishery training vessels	27.9	COX



ISSCFV 1984		ISSCFV Code	Standard Abbreviation	ISSCFV 2005 (including 2007 amendment) revision		ISSCFV Code	Standard Abbreviation
<i>Fishing Vessel Category</i>	<i>Fishing Vessel Sub-Category</i>			<i>Fishing Vessel Category</i>	<i>Fishing Vessel Sub-Category</i>		
Non-fishing vessels nei		99.0.0	VOX	Support vessels		23	SA
					Bunkering tanker vessels	23.1	SB
					Towing vessels	23.2	ST
					Support and auxiliary ships nei	23.9	SAX
Non-fishing vessels nei		99.0.0	VOX	Vessels supporting fishing related activities		29	VO
					Multipurpose vessels supporting fishing related activities	29.1	VOM
					Vessels supporting fishing related activities, nei	29.9	VOX



## INTERSESSIONAL WORK OF CWP

CWP 26 in May 2019 agreed on the establishment of the following Task Groups (TG). The preliminary results of the TG will be presented at the CWP Intersessional in November 2021 and then at CWP 27 Session in 2022.

### **Ad-hoc TG on fishing concepts**

- Fishing effort: potential standard (including consideration of STATLANT B)
- Fishing activity information section of the handbook

### **Ad-hoc TG on catch concepts**

- To elaborate and review CWP Catch Concept Diagram Annex B1
- Retained catch, Bycatch, Intended catch
- Consider the broader context of recreational, small-scale, artisanal, commercial, semiindustrial and industrial fisheries

### **Ad-hoc TG on reference harmonization (TG-RH)**

- CWP catalogue, Implementation guidelines
- CWP coding system for water jurisdiction areas, territorial Seas and inland waters
- Fishing activity (presented as logbook) data structure

### **Ad-hoc TG on the Aquaculture section of the CWP Handbook**

- CWP revision of the Handbook

### **Ad-hoc TG to review best practices and to address confidentiality matters**

- to analyse different collection systems of the CWP members to reduce burden on countries and streamline collection
- to analyse confidentiality rules of CWP members
-

## SUSTAINABLE DEVELOPMENT GOALS (SDGs)



On 25 September 2015, Member States of the United Nations adopted the 2030 Agenda for Sustainable Development and the SDGs, a set of 17 aspirational objectives with 169 targets expected to guide actions of governments, international agencies, civil society and other institutions over the period 2016–2030. The SDGs represent the first global development push in history led by the Member States. They set out specific objectives for countries to be met within a given time frame, with achievements monitored periodically to measure progress and ensure that no one is left behind. To achieve the global transition to sustainable development, countries are now establishing an enabling environment of policies, institutions and governance – grounded in a sound evidence-based approach that takes into account the three dimensions of sustainability (economic, social and environmental) - with closely interwoven targets.

A significant factor in the success of the SDGs will be new and effective ways of collecting data, monitoring targets and measuring progress. The 2030 Agenda has set in place a global reporting structure that includes inputs at local, national and regional levels, and culminates in the UN High-Level Political Forum, an annual intergovernmental meeting that provides guidance and recommendations, identifies progress and challenges, and mobilises action to accelerate implementation of the 17 SDGs.

Indicators are the foundation of this mutual accountability structure. In March 2016, the UN Statistical Commission identified as a “practical starting point” 230 indicators to monitor the SDGs’ 169 targets. These global indicators will help countries measure the progress they are making towards achieving objectives, learn from experiences and understand which areas to prioritise and allocate resources to. According to the principle of national ownership, countries are chiefly responsible for gathering data. The sheer weight of indicators, however, represents an immense challenge for countries. International agencies can lend assistance by strengthening national capacities and ensuring that data are comparable and aggregated at sub-regional, regional and global levels. FAO is recognized as having a fundamental global role in developing methods and standards for food and agriculture statistics, and in providing technical assistance that can help countries meet the new monitoring challenges. FAO is

proposed “custodian” UN agency for 21 SDG indicators<sup>11</sup>, central to food and agriculture, across SDGs 2, 5, 6, 12, 14 and 15, and a contributing agency for six more. FAO will act as facilitator to assist countries with their reporting and to foster strong and coherent institutional and policy environments

Several SDGs are directly relevant to fisheries and aquaculture and to the sustainable development of the sector, and one goal expressly focuses on the oceans (SDG 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development)<sup>12</sup>. Along with SDG 14 targets, sustainable fisheries and aquaculture contribute to multiple objectives including ending poverty (SDG 1), ending hunger, achieving food security and improved nutrition (SDG 2), and promoting sustained, inclusive and sustainable economic growth (SDG 8).

Fisheries and aquaculture are integral to sustainable development and have a key role to play in achieving the objectives set out by the 2030 Agenda. Sustainable Development Goal 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development) has clear implications for marine fisheries and aquaculture, providing actionable objectives that require international collaboration. The strong linkages that exist between the SDGs mean that achieving the targets set out in SDG 14 will have positive knock-on effects that are felt across society, and that achieving SDG 14 will be dependent on good progress being made towards the other closely related SDGs. The ten targets of SDG 14 are wide-ranging and diverse, addressing fundamental issues for healthy, sustainable economies. FAO is the custodian agency for the implementation and monitoring of four indicators under SDG 14:

14.4.1: Proportion of fish stocks within biologically sustainable levels

14.6.1:- Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing

14.7.1: Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries

14.b.1: progress by countries in the degree of application of a legal/ regulatory/ policy/institutional framework which recognizes and protects access rights for small-scale fisheries

The work of FAO has high relevance to successfully achieving SDG 14, which also includes targets to reduce marine pollution, protect aquatic ecosystems, minimize ocean acidification, develop scientific capacity relevant to fisheries, and improve the implementation of international law pertinent to the sustainable use of oceans.

#### FAO’s action as custodian of SDG indicator 14.4.1

SDG 14.4.1 Proportion of fish stocks within biologically sustainable levels

To know stock abundance, one needs to carry out stock assessment that utilizes:

- fish catch statistics
- fishing effort data
- biological information

<sup>11</sup> See <http://www.fao.org/3/a-i6919e.pdf> for more about the role of FAO as custodian agency

<sup>12</sup> See table on SDG 14 and related targets and indicators at pages 36-37. More information on the work of FAO with SDG 14 is available at <http://www.fao.org/3/a-i7298e.pdf>



and fit the data to a population dynamics model.

Fish stocks that have

abundance at or above the level associated with the maximum sustainable yield are counted as → biologically sustainable,  
otherwise are considered as → overfished.

FAO is a custodian of SDG14.4.1. Therefore, FAO has to facilitate the process, provide technical support, and build capacity in member countries towards the reporting of stock status. As custodian, FAO is also responsible for collecting data from national sources, for ensuring that data are comparable and aggregated at sub-regional, regional and global levels, and for providing the storyline for the annual global SDG progress report.

FAO has been developing a capacity building plan that will help countries to:

- Understand what SDG 14.4.1 is measuring;
- Know how SDG 14.4.1 is estimated;
- What data and skills are required to estimate SDG 14.4.1;
- What rough and ready methods are available, their advantages and disadvantages;
- What data sources, tools and infrastructures are available to support assessment;
- Reporting framework rules and monitoring capacity.

FAO's general capacity building plan includes the identification of a selected set of stock assessment methods applicable in Data Limited situations (DLM), the guidelines on the monitoring framework, the development of an e-training curriculum, the convening of a global expert workshop where these methods will be peer reviewed for endorsement by regional experts, and where these experts will be themselves trained as trainers.

FAO has also developed an e-learning course focused on SDG Indicator 14.4.1 - Fish stocks sustainability: "Proportion of fish stocks within biologically sustainable levels". It introduces basic fisheries concepts and definitions, illustrates some technical aspects of classical and data-limited stock assessment and provides detailed guidance on process and tools for the analysis and reporting of the Indicator.

The course consists of 5 lessons, ranging from approximately 30 to 60 minutes duration each:

- Lesson 1 Introduction to SDG Indicator 14.4.1
- Lesson 2 Concepts and process behind the estimations of SDG Indicator 14.4.1
- Lesson 3 Estimation of SDG Indicator 14.4.1 from classical stock assessment outputs
- Lesson 4 Estimation of SDG Indicator 14.4.1 from data-limited methods (coming soon)
- Lesson 5 Guidelines for national reporting of SDG Indicator 14.4.1

## NEW AND UPDATED GLOBAL FRAMEWORKS RELATED TO FISHERY STATISTICS

Food and Agriculture Organization of the United Nations

FIRST REGIONAL TECHNICAL CONSULTATION ON FISHERY STATISTICS AND INFORMATION  
21-22 SEPTEMBER 2021

# FishStat

FAO FISHERY AND AQUACULTURE STATISTICS

## New and Updated Global Frameworks Related to Fishery Statistics

WP04

Stefania Vannuccini  
Leader – Statistics Team/CWP Secretary

@svannu@FAO  
Stefania.Vannuccini@fao.org

### Outline

1. Overview
2. Role of statistics
3. Coordinating Working Party on Fishery Statistics (CWP)
4. Statistics in support to international fisheries management: SDGs

1. Overview
2. Role of statistics
3. Coordinating Working Party on Fishery Statistics (CWP)
4. Statistics in support to international fisheries management: SDGs

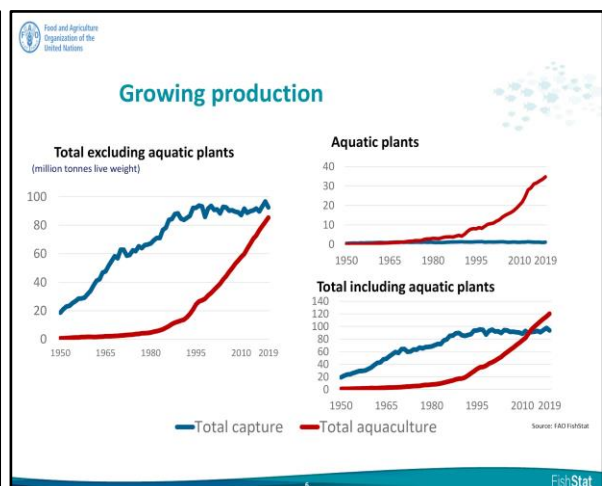
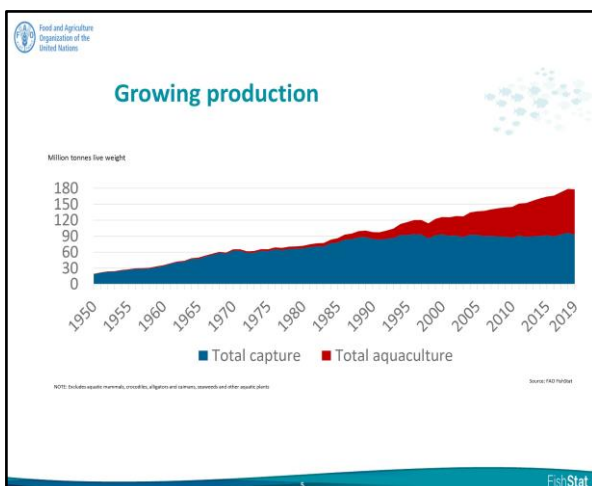
### The sector

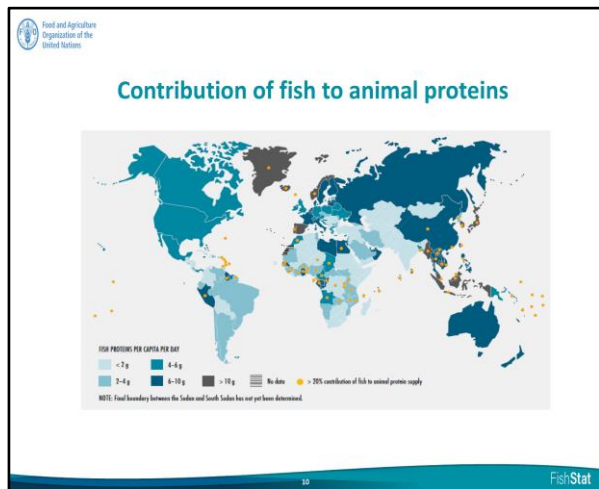
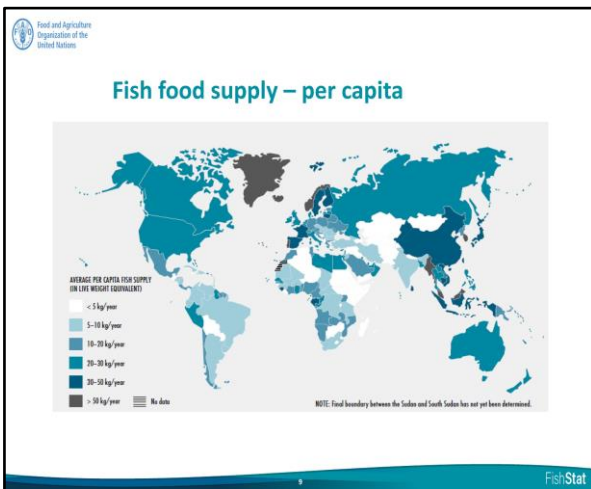
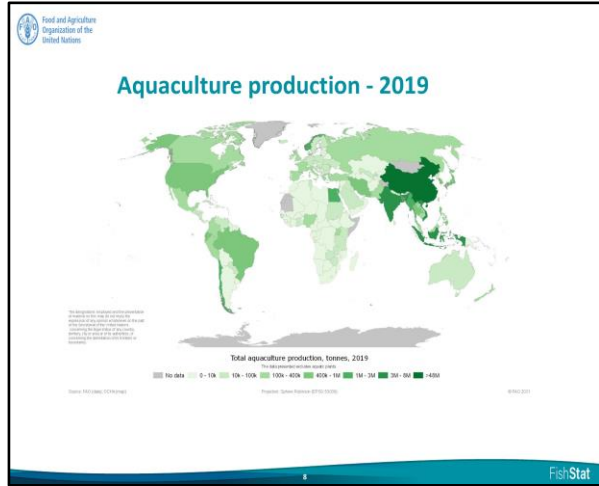
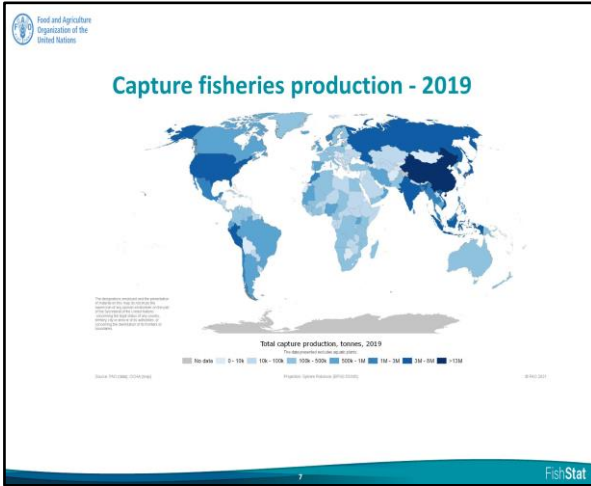
- Key role in food security
- Nutritious food
- Employment
- Income/Livelihood

Employment in fisheries and aquaculture  
58.7 million people engaged in primary sector of the world

19.3 MILLION in Asia  
40.4 MILLION in fisheries when including the remainder of the world  
50% ARE WOMEN

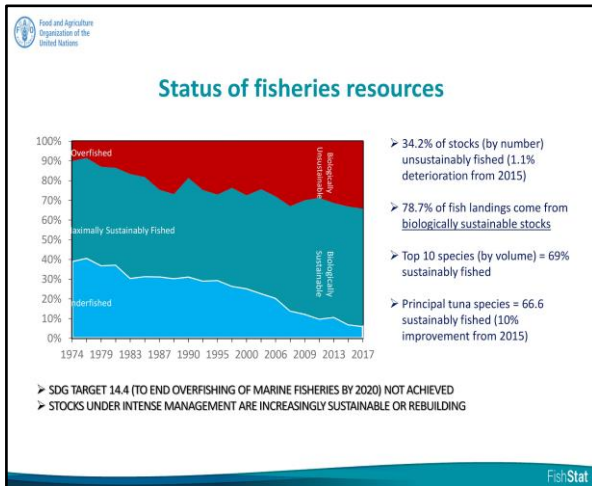
Fish: Nature's superfood





But....

- Issues, constraints and challenges**
- Resources and environment**
    - Environment degradation and habitat destruction
    - Loss of biodiversity
    - Overexploited fish stocks
    - Biosecurity (disease outbreaks)
    - Climate changes (El Niño, ocean acidification, stock migration, severe weather conditions, etc.)
  - Socioeconomic and governance**
    - Overcapacity (fleets and labor)
    - IUU fishing
    - Bycatch and discards
    - Assess to capital and financial services (loans, insurance, etc.)
    - Equity (poverty, forced labor, child labor, etc.)
    - Public image of fisheries and aquaculture

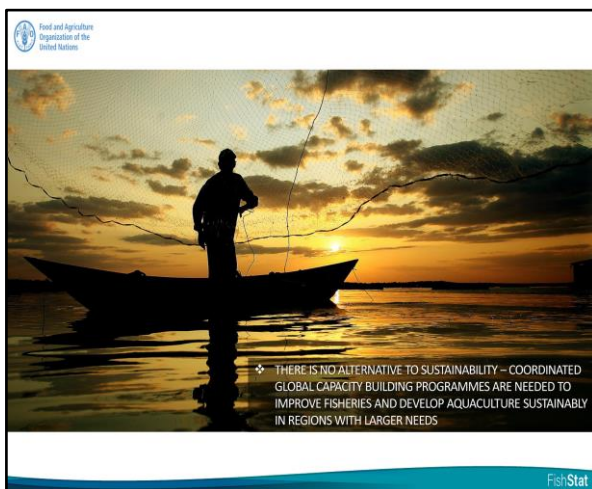


**More food will required**

*But the way we produce more food cannot be at the expense of the planet*

**Fishery sustainability:**  
 “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

*World Commission on Environment and Development*



- Sustainable increase of capture fisheries**
- 
1. Invest heavily in management and governance (data collection, surveys, assessments, policy development and implementation, enforcement,...)
  2. Utilize new technologies
  3. Reduce Loss and Waste (@sea and on land)
  4. Eradicate negative subsidies
  5. Eradicate IUU fishing
  6. Actively adapt to Climate Change impacts and opportunities



1. Overview
2. Role of statistics
3. Coordinating Working Party on Fishery Statistics (CWP)
4. Statistics in support to international fisheries management: SDGs

**Why do we collect data?**

**FAO Code of Conduct for Responsible Fisheries (Code):**  
 "In order to ensure sustainable management of fisheries and to enable social and economic objectives to be achieved, **sufficient knowledge of social, economic and institutional factors should be developed through data gathering, analysis and research.**" (Code Art. 7.4.5)

If we have sufficient knowledge, then we are able to formulate useful policies for the whole fisheries and aquaculture sectors and effective management plans. Fishery policies and management plans should address the fishery and aquaculture sector as a contributor to the food supply and economy at the local and national levels, and as a critical component of the ecosystem. Hence, data collection should **cover all aspects** of a fishery/aquaculture, from the natural resources, via exploitation to the local consumers, industry and trade

FishStat

**Critical role of statistics**

- Knowledge of the status and trends of the sector, not limited to production, but **encompassing the entire value chain**, is key to both **sound policy-making** and to **assess and track** the performance of responsible fisheries management.
- Fisheries and aquaculture statistics are also essential as a basis for describing **the contribution of the sector** to national food supply, to the economy (e.g. through the system of national economic accounts), to employment and poverty alleviation.
- The limited availability of information often constrains policy-making and planning.
- They need to be **accurate, timely and detailed** as possible
- Need to use **comparable/ international standards**

FishStat

**Main issues in data collection**

- **Technical capacity**
  - Lack of knowledge, utilization of the most suitable methodologies
  - Skilled human resources, turn over
  - Lack of appropriate, cost-effective data collection system and information systems to collate, manage, analyze, store and disseminate national statistics and information
- **Recognition of the importance of the sector**
  - Lack of human and financial resources
- **Organizational, Governance**
  - Limited communication among stakeholders involved on fisheries and aquaculture statistics and information
- **Multiple reporting obligations**
  - There are increasing needs to meet international requirements in terms of variable definitions, classifications, statistical stratification and standards

FishStat

**Quality of statistics received by FAO**

- Quality varies significantly among countries
- For some countries data look incomplete, especially when cross-checking them with additional/alternative sources
- Problems in particular for inland fisheries, recreational, subsistence fisheries and small scale fisheries
- IUU, transshipments, recreational, subsistence not well covered
- Difficulty to monitor small-scale/artisanal capture fisheries due to the great number of landing sites
- The level of detail by species looks inaccurate or lacking species level identification, leading to miscalculations in production and trade and no reporting for certain groups
- Lack or missing information or utilization on stock assessment;
- Not regular collection of socio economic data (such as fleet and employment), often done through national frame surveys but not collated and made available, or not shared amongst departments
- Issues with trade of some of the countries: intra-regional trade not well captured

FishStat

**1. Overview**

**2. Role of statistics**

**3. Coordinating Working Party on Fishery Statistics (CWP)**

**4. Statistics in support to international fisheries management: SDGs**

FishStat

**Coordinating Working Party on Fishery Statistics (CWP)**

CWP provides a mechanism for the coordination of fishery statistical programs of regional fishery bodies and other inter-governmental organizations, whose remit relates to fishery statistics

**Main purposes:**

- Continually review fishery statistics **requirements** for research, policy-making and management
- Agree on **standard** concepts, definitions, classifications and methodologies for the collection and collation of fishery statistics
- Make proposals for the **coordination and streamlining** of statistical activities among relevant intergovernmental organizations

FishStat





**CWP Handbook: scope**

- The intended users of the Handbook are the CWP Member Agencies, national fishery and aquaculture statistics offices, national administrations and other fishery and aquaculture agencies.
- The Handbook is also intended to assist in the development of national standards as logical extensions of the international standards. Authorities considering introducing or revising national statistical systems are requested to ensure that the system developed incorporates a high degree of compatibility with the international standards described in the Handbook.

**Revision of ISSCAAP**

- International Standard Statistical Classification for Aquatic Animals and Plants
- Widely used for fisheries and aquaculture statistical dissemination and analysis.
- ISSCAAP classifies aquatic commercial species into 50 groups and nine divisions on the basis of their taxonomic, ecological and economic characteristics
- Currently it does not properly reflect the growing importance of aquaculture
- Task group within CWP
- Revision was presented at the 26 session of CWP in 2019
- It was approved, but not endorsed yet as there are a few pending issues to be solved, including numbering

**Revision of ISSCAAP**

- The proposal took into consideration:
  - taxonomic classification of aquatic species
  - type of water as natural habitat of the species according to the salinity (freshwater vs marine water)
  - behaviour and economic importance of the species
  - feeding habit of the aquatic animal species

**Revision of ISSCAAP (changes in red)**

<p><b>1 Freshwater fishes</b></p> <ul style="list-style-type: none"> <li>Carps, barbels, <b>river suckers</b></li> <li><b>Loaches and hillstream loaches</b></li> <li>Tilapias and other cichlids</li> <li><b>Freshwater catfishes</b></li> <li><b>Freshwater perches and basses</b></li> <li><b>Snakeheads</b></li> <li><b>Characins</b></li> <li><b>Swamp eels and spiny eels</b></li> <li>Miscellaneous freshwater fishes</li> </ul>	<p><b>2 Diadromous and euryhaline fishes</b></p> <ul style="list-style-type: none"> <li>Sturgeons, paddlefishes</li> <li><b>Anguilla eels (instead of river eels)</b></li> <li>Salmons, trouts, smelts</li> <li>Shads</li> <li><b>Milkfish, mullets</b></li> <li><b>Euryhaline puffer fishes</b></li> <li>Miscellaneous diadromous and euryhaline fishes</li> </ul>
---	---

**Revision of ISSCAAP (changes in red)**

<p><b>3 Marine fishes</b></p> <ul style="list-style-type: none"> <li>31 Flounders, halibuts, soles <b>and other flatfishes</b></li> <li>32 Cod, hakes, haddock</li> <li>33 Miscellaneous coastal fishes</li> <li>34 Miscellaneous demersal fishes</li> <li>35 Herrings, sardines, anchovies</li> <li>36 Tunas, bonitos, billfishes</li> <li>37 Miscellaneous pelagic fishes</li> <li>38 Sharks, rays, chimaeras</li> <li>39 Marine fishes not identified</li> </ul>	<p><b>4 Crustaceans</b></p> <ul style="list-style-type: none"> <li><b>Freshwater shrimps and prawns</b></li> <li><b>Freshwater crayfishes</b></li> <li><b>Miscellaneous freshwater crustaceans</b></li> <li><b>Marine crabs, sea-spiders</b></li> <li>Lobsters, spiny-rock lobsters</li> <li>King crabs, squat-lobsters</li> <li><b>Marine shrimps and prawns</b></li> <li>Krill, <b>marine</b> planktonic crustaceans</li> <li>Miscellaneous marine crustaceans</li> </ul>
---	---

**Revision of ISSCAAP (changes in red)**

<p><b>5 Molluscs</b></p> <ul style="list-style-type: none"> <li>51 Freshwater molluscs</li> <li>52 Abalones, winkles, conchs <b>and other sea snails</b></li> <li>53 Oysters</li> <li>54 <b>Sea</b> Mussels</li> <li>55 Scallops, pectens</li> <li>56 Clams, cockles, arkshells <b>and other bivalves</b></li> <li>57 Squids, cuttlefishes, octopuses</li> <li>58 Miscellaneous marine molluscs</li> </ul>	<p><b>6 Whales, seals and other aquatic mammals</b></p> <ul style="list-style-type: none"> <li>61 Blue-whales, fin-whales</li> <li>62 Sperm-whales, pilot-whales</li> <li>63 Eared seals, hair seals, walruses</li> <li>64 Miscellaneous aquatic mammals</li> </ul>
--	---

Food and Agriculture Organization of the United Nations

## Revision of ISSCAAP (changes in red)

- 7 Miscellaneous aquatic animals
  - 71 Frogs, **salamanders** and other amphibians
  - 72 Turtles
  - 73 Crocodiles, alligators **and caimans**
  - 74 Sea-squirrels and other tunicates
  - 75 Horseshoe crabs and other arachnoids
  - 76 Sea-urchins and other echinoderms
  - **Sea cucumbers**
  - **Marine worms**
  - Miscellaneous aquatic invertebrates
- 8 Miscellaneous aquatic animal products<sup>81</sup> Pearls, mother-of-pearl, shells
  - 82 Corals
  - 83 Sponges
- 9 Aquatic plants
  - **Brown algae**
  - **Red algae**
  - **Marine macro green algae**
  - **Aquatic Cyanobacteria (blue-green algae)**
  - **Miscellaneous aquatic micro-algae**
  - **Miscellaneous aquatic macrophytes**
  - Miscellaneous aquatic plants

FishStat

Food and Agriculture Organization of the United Nations

## CWP – Preliminary categorization of farming methods

- At CWP 26, a preliminary structured list of aquaculture farming systems (culture methods) was presented as baseline information and reference to update the international aquaculture farming systems classification in use since the 1980s.
- The list is structured with hierarchy levels under 12 categories based on a set of criteria and consideration

FishStat

Food and Agriculture Organization of the United Nations

## CWP – Preliminary categorization of farming methods

1. Earthen ponds
2. Tanks and raceways
3. Man-made and semi man-made water bodies
4. Lakes, lagoons and other natural water bodies
5. Cages
6. Pens and enclosures
7. RAS (recirculating aquaculture systems)
8. Rice-Fish culture and integration with other aquatic crop plantation
9. Culture methods for shelled molluscs
10. Culture methods for seaweeds
11. Culture methods for microalgae
12. Other culture methods

FishStat

Food and Agriculture Organization of the United Nations

## ISSCFV

### International Standard Statistical Classification of Fishing Vessels

Under the ISSCFV, the CWP adopted three classifications

the International Standard Statistical Classification of Fishery Vessels **by Gross Register Tonnage (GRT)** Categories, based on the Gross Register Tonnage of the vessels; this was approved by the CWP in 1977

the International Standard Statistical Classification of Vessels **by Length Classes**, approved by CWP in 1982;

the International Standard Statistical Classification of Fishery Vessels **by Vessel Types**, based on the type of gear used by the vessels; approved by the CWP in 1984

FishStat

Food and Agriculture Organization of the United Nations

## ISSCFV by Vessel types

The classification was revised in 2005, further amended in 2007 and 2019 and finally endorsed at CWP 26 in 2019

For the revised structure, careful emphasis was made that the ISSCFV categories should be based on consideration of vessel structural characteristics, while modernizing some categories to better reflect vessel types currently used in fisheries.

The classification also moved to a two-level hierarchy and this allowed for the streamlining of the classification to be accomplished while the creation of a flexible third level that can be customized allows for specific vessel types to be accommodated, as needed.

In this way local vessel type categories can be implemented by the countries to meet their needs while still freeing the classification from becoming too broad in order to cover all eventualities

FishStat

Food and Agriculture Organization of the United Nations

## ISSCFV by Vessel types: categories

<h3>Fishing Vessels</h3> <ul style="list-style-type: none"> <li>Trawlers</li> <li>Purse seiners</li> <li>Seiners (other)</li> <li>Dredgers</li> <li>Lift netters</li> <li>Gillnetters</li> <li>Trap setters</li> <li>Longliners</li> <li>Line vessels (other)</li> <li>Multipurpose vessels</li> <li>Recreational fishing vessels</li> <li>Other fishing vessels</li> </ul>	<h3>Vessels supporting fishing related activities</h3> <ul style="list-style-type: none"> <li>Fishery research and survey vessels</li> <li>Patrol vessels</li> <li>Fishery training vessels</li> <li>Vessels supporting fishing related activities</li> </ul>
---	---

For each category, there are different sub-categories

FishStat

**CWP Intersessional Work 2019-2022**

- Ad-hoc TG on **catch concepts**
- Ad-hoc TG on **reference harmonization standard**
- Ad-hoc TG on **fishing effort concepts**
- Ad-hoc TG on **best practices for streamlining statistical data workflow**, with a focus on confidentiality issues
- Ad-hoc TG on the **revision of the aquaculture section** of the Handbook including farming systems classification

FishStat

**1.1.5**

1. Overview
2. Role of statistics
3. Coordinating Working Party on Fishery Statistics (CWP)
4. Statistics in support to international fisheries management: SDGs

FishStat

**SDGs**

A significant factor in the success of the SDGs will be new and effective ways of collecting data, monitoring targets and measuring progress

- Several SDGs are directly relevant to fisheries and aquaculture
- In addition, sustainable fisheries and aquaculture contribute to multiple objectives including ending poverty (SDG 1), ending hunger, achieving food security and improved nutrition (SDG 2), and promoting sustained, inclusive and sustainable economic growth (SDG 8).
- One goal expressly focuses on the oceans (SDG 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development).

FishStat

**SDG – Goal 14**

**Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development**

- Goes beyond conservation to focus on the people and coastal communities.
- Provides a special focus to small scale fisheries and the fisheries and populations reliant on this subsector.
- Makes achieving food security and ending malnutrition a global priority.
- The importance of fisheries in local and global food systems and its contribution to nutrition and health, particularly for the poor are overlooked and undervalued.
- End overfishing and combat IUU

FAO custodian of four SDG indicators under Goal 14

FishStat

**SDG 14.4.1** → progress in measuring the sustainability of the world's marine capture fisheries

**Target 14.4**  
By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to **restore fish stocks** in the shortest time feasible, at least to levels that can **produce maximum sustainable yield** as determined by their biological characteristics"

**Indicator 14.4.1**  
Proportion of fish stocks within biologically sustainable levels

Capacity building, workshops and online e-learning

**FAO contacts**  
14.4.1 - [Yimin.Ye@fao.org](mailto:Yimin.Ye@fao.org)  
[Marc.Taconet@fao.org](mailto:Marc.Taconet@fao.org)

FishStat

**SDG 14.4.1**

Implementing monitoring and reporting of stock status at the country level that can be used to build regional and global indicators (such as SDG Indicator 14.4.1) **requires strong ownership and leadership** of the process at the national level.

Several actors and roles are involved:

- Indicator 14.4.1 relies on information produced through fish stock assessments, commonly carried out by **research institutes**, universities, and/or government fisheries science agencies.
- These institutions should take an active role in liaising with the **fisheries authorities** and national institutions responsible for reporting on SDG indicators.
- This will help to raise awareness about data needs and gaps in assessment, hence to ensure that the reported results and supporting information are understood by the **custodian agency** in order to establish a more robust indicator measurement.

FishStat


**SDG 14.4.1 – Capacity Development/Technical Assistance**  
**Support to fisheries management, stock assessment**

- Direct assessment from Scientific cruises, e.g. with FAO's Fridtjoff Nansen research vessel
- Training courses on stock assessment based on Data Limited methods
- Development of fishery management plans based on Ecosystem Approach to Fisheries (EAF)
- Support to regional capacity building workshops in collaboration with RFBs




FishStat

**SDG 14.4.1 e-learning**



**Course structure**  
 The course consists of 5 lessons, ranging from approximately 30 to 60 minutes duration each:

- Lesson 1 Introduction to SDG Indicator 14.4.1
- Lesson 2 Concepts and process behind the estimations of SDG Indicator 14.4.1
- Lesson 3 Estimation of SDG Indicator 14.4.1 from classical stock assessment outputs
- Lesson 4 Estimation of SDG Indicator 14.4.1 from data-limited methods (coming soon)
- Lesson 5 Guidelines for national reporting of SDG Indicator 14.4.1

This course focuses on SDG Indicator 14.4.1 - Fish stocks sustainability: "Proportion of fish stocks within biologically sustainable levels". It introduces basic fisheries concepts and definitions, illustrates some technical aspects of classical and data-limited stock assessment and provides detailed guidance on process and tools for the analysis and reporting of the indicator.  
 Duration: 3.5 hours

FishStat

**SDG 14.7.1** → Sustainable fisheries as % of GDP

**Target 14.7**  
 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

**Indicator 14.7.1** – Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries

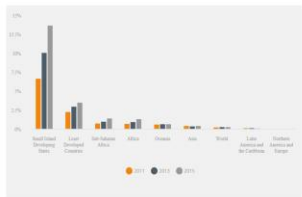
**FAO contacts**  
 SDG14.7 - [Audun.Lem@fao.org](mailto:Audun.Lem@fao.org)  
[Marcio.Desouza@fao.org](mailto:Marcio.Desouza@fao.org)

FishStat

**SDG 14.7.1 - Methodology**

This indicator is intended to measure the value of sustainable fisheries. It is expressed as a percentage of the country's Gross domestic product (GDP).

Sustainability is linked to SDG 14.4.1



Data will be produced for all countries and aggregated for Small Island Developing States (SIDS) and Least Developed Countries (LDCs). The indicator will measure progress towards SDG Target 14.7

FishStat

**SDG 14.b.1** → progress in achieving enablers of access rights for SSF

**Target 14.b**  
 Provide access for small-scale artisanal fishers to marine resources and markets

**Indicator 14.b.1**  
 progress by countries in the degree of application of a legal/ regulatory/ policy/institutional framework which recognizes and protects access rights for small-scale fisheries


**FAO contacts**  
 14.b.1 - [Nicolas.Franco@fao.org](mailto:Nicolas.Franco@fao.org)  
[jeremie.gene@fao.org](mailto:jeremie.gene@fao.org)

FishStat

**SDG 14.b.1 – Methodology**

**Data source:**  
 Data are collected through FAO member country responses to the Code of Conduct Responsible Fisheries survey

- Since 2016, survey is administered in electronic form and includes a new section in relation to small-scale fisheries and the implementation of the SSF Guidelines
- Circulated every two years to FAO members (194 + EU) and observers (regional organizations, IGOs and INGOs). Just circulated: new submission to be provided !!!
- CCRF survey usually compiled by national fisheries administrations
- Survey responses are reviewed and presented by FAO to the Committee on Fisheries (COF) with aggregation of results at regional and global level




<http://www.fao.org/fishery/topic/20855/en>

FishStat

Food and Agriculture Organization of the United Nations

## SDG 14.b.1 e-learning

<https://elearning.fao.org/course/view.php?id=345>



**Course structure**  
The course consists of 4 lessons, ranging from approximately 25 to 60 minutes duration each:

- Lesson 1 Introduction
- Lesson 2 Creating an enabling environment for sustainable small-scale fisheries
- Lesson 3 Gathering data and compiling the 14.b indicator
- Lesson 4 Managing and using the estimated results of 14.b indicator

55 FishStat

Food and Agriculture Organization of the United Nations

## SDG 14.6.1

→ progress in achieving enablers for fight against IUU

**Target 14.6**  
By 2020, **prohibit certain forms of fisheries subsidies** which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the WTO fisheries subsidies negotiation

- Indicator 14.6.1** - Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing

**FAO contacts**  
SDG14.6 [matthew.camilleri@fao.org](mailto:matthew.camilleri@fao.org)  
[blaise.kuemtangane@fao.org](mailto:blaise.kuemtangane@fao.org)

FishStat

Food and Agriculture Organization of the United Nations


## SDG 14.6.1 – Methodology

**Data source**

- Data are collected through FAO Members' responses to relevant sections in the biennial web-based questionnaire on the implementation of the CCRF

**Computing method**

- The unit of measurement of the indicator is a score on a scale of 0 to 1, computed through scores and weights assigned to three main variables
- To facilitate reporting of the indicator, a tool will automatically process the responses and provide an indicator report for final validation by the country



It is up to the relevant Ministry responsible for fisheries that provides the survey to FAO to coordinate with their National Statistical Authority

FishStat

Food and Agriculture Organization of the United Nations

Thank you • Merci  
Благодарю • ¡Muchas gracias!  
謝謝 • شكرا

Stefania Vannuccini

@SvannuFAO [Stefania.Vannuccini@fao.org](mailto:Stefania.Vannuccini@fao.org)

FishStat

## REVISION OF THE “REGIONAL FRAMEWORK FOR FISHERY STATISTICS OF SOUTHEAST ASIA” AND “EXPLANATORY NOTES OF THE FISHERY STATISTICAL BULLETIN OF SOUTHEAST ASIA” (GENERAL PARTS)

### A. REGIONAL FRAMEWORK FOR FISHERY STATISTICS OF SOUTHEAST ASIA

This part of the document is based on “**topic I - topic III 3.2**” of the “Regional Framework For Fishery Statistics of Southeast Asia” which was adopted by the SEAFDEC Council during its 40<sup>th</sup> Meeting in 2008, and includes some amendments proposed by SEAFDEC and inserted as underlined text. It should be noted that the remaining RTCs parts of the document, *i.e.* **topic III 3.3 onwards** would be discussed during the subsequent RTCs (planned in 2022 and 2023) in order to complete the revision of the whole “Regional Framework.”

#### I. BACKGROUND AND IMPORTANCE OF THE REGIONAL FRAMEWORK

In Southeast Asia, the importance of fishery statistics has been widely accepted as a tool in providing the basic foundation that is crucial to the formulation of national fisheries policies as well as national management frameworks and actions or even as basis for understanding the status and condition of the fishery resources. As basic structures to facilitate development planning and management of fisheries, the fishery statistical items and data set collected by countries could vary based on the priority needs and objectives of the countries. In addition, the complexity or extent of the respective countries’ national fishery statistical systems including the frameworks for collecting the national fishery statistics also depend on available resources, *i.e.* financial, institutional and human capacity.

In order to consolidate the factors that could minimize the differences in the current national statistical systems of the countries in Southeast Asia, SEAFDEC has initiated the revision of the Regional Framework so that this could better serve as a basic requirement (minimum requirement) for compiling fishery statistics and information that could be easily achieved by the countries in the region. Moreover, the need to strengthen and improve the countries’ national fishery statistics has been highlighted in the regional policy of the ASEAN and SEAFDEC, *i.e.* the ASEAN-SEAFDEC Resolution and Plan of Action on Sustainable Fisheries for Food Security in the New Millennium (ResPoA 2001), the ASEAN-SEAFDEC Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 (RES&POA-2020), and the subsequent RES&POA-2030. SEAFDEC therefore considered it necessary to address the common issues, problems and constraints through regional cooperation and collective actions under a regional framework in order that this can serve as basis for development planning and management of the region’s fisheries. Furthermore, considering the recent developments in the fisheries sector of Southeast Asia, revision of the Regional Framework is deemed necessary to enhance the usefulness of the framework for fishery statistics for Southeast Asia.

The compilation of fishery statistics in Southeast Asia has been regularly pursued by SEAFDEC since 1978 initially through the publication “Fishery Statistical Bulletin for the South China Sea Area.” However, the escalating situation in fisheries practices in the region and the new geo-political set-up of the ASEAN, has made it necessary to revise the existing framework of the regional fishery statistics and the usage of the Bulletin. In accordance with the policy directives given at the 36<sup>th</sup> Meeting of SEAFDEC Council in 2004, the SEAFDEC Secretariat organized a series of Regional Technical Consultations (RTC) with the Member Countries to develop a new framework for fishery statistics of Southeast Asia. The draft new Regional Framework was endorsed by the SEAFDEC Council at its 37<sup>th</sup> Meeting in 2005.

The draft of the new Regional Framework for Fishery Statistics of Southeast Asia developed by SEAFDEC was supported by the Member Countries at the RTC on Fishery Statistics and Information in December 2007. The Member Countries also agreed to adopt the new and improved framework as it contains the minimum requirements for the compilation national fishery statistics. The Regional Framework was endorsed by SEAFDEC Council at its 40<sup>th</sup> Meeting in April 2008 and subsequently, was also endorsed by the ASEAN



Sectoral Working Group on Fisheries (ASWGF) at its 16<sup>th</sup> Meeting in May 2008. The new Regional Framework, which includes major changes in the “area of coverage” and “statistical usage” to be consistent with the areas of competence of SEAFDEC as well as on the “standard definitions and classifications” to be consistent with the current regional requirements, has also been harmonized with the international standards. The new Regional Framework would play the major role of enhancing the regional collaborative framework on fishery statistics to facilitate wider sharing of data and information, as well as of providing the necessary inputs for the compilation of the Fishery Statistical Bulletin of Southeast Asia produced by SEAFDEC starting in 2008 that replaced the Fishery Statistical Bulletin for the South China Sea Area which was produced from 1978 to 2007.

It should be noted that this revision of the Regional Framework is in line with the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 which was adopted in 2020 and included the provision on the need to “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.” Furthermore, considering that after the development of the Regional Framework in 2008 there have been several changes in global frameworks and standards related to fishery statistics as well as the inclusion of additional statistics to enhance the usage of the Fishery Statistical Bulletin compiled by SEAFDEC for the benefit of the region. The Regional Framework was therefore reviewed in consultation with the ASEAN Member States, and the revised version of the Regional Framework was adopted by the SEAFDEC Council at its 56<sup>th</sup> Meeting in 2024 (to be finalized).

## **II. PURPOSE AND USAGE**

The SEAFDEC Council at its 36<sup>th</sup> Meeting in 2004 deemed it necessary to improve the compilation of regional fishery statistics and directed the SEAFDEC Secretariat to revise the framework of the compilation considering the new geo-political set-up of the ASEAN, the changing situation of the region’s fisheries as well as the differences in the current national statistical systems. Thus, the new Framework was developed to focus on the basic requirements that can be possibly achieved by the countries in the region without putting much burden on the national agencies responsible for the collection and compilation of fishery statistics. Furthermore, it is also deemed necessary that the new framework is harmonized with those of relevant international norms and standards in order to facilitate statistics compilation, analysis, and data exchange not only within the region but also at the global level, as well as enhance the usage of the statistics to support policy planning and management of fisheries toward the sustainability.

### **2.1 Minimum Requirements for Fishery Statistics of Southeast Asia**

As envisaged, the revision of the Regional Framework would give many benefits to the ASEAN countries. Since the Regional Framework is considered as the “Minimum Requirement for Fishery Statistics of Southeast Asia,” its adoption would be beneficial to the countries in the region as it could be used as guide that facilitates a long-term improvement of their fishery statistics at the national level, provides better understanding and clear picture of the fisheries sector specifically in terms of the minimum requirements of fishery statistics, and advocates the harmonized standards and definitions in order to correspond to regional requirements and conform with international standards.



## 2.2 Frameworks of Inputs for the Development of International Norms and Standards

Since the revised and unified Regional Framework contains the minimum requirements for the compilation of fishery statistics as well as the standards embodying the regional requirements, it could also be used in gathering inputs for the international development of norms and standards for fishery statistics. Harmonization of standard definitions and classifications reflecting the multi-species/gear tropical fisheries nature of Southeast Asia would facilitate the sharing of fishery statistics and information in the region as well as contributing to similar development at the global level. Therefore, improvement of the framework as well as the standard definitions and classification of fishery statistics through the revision of the Regional Framework could very well support such endeavors.

## 2.3 Enhanced Sharing of Fishery Information

The standardized definitions and classification of fishery statistics under this Regional Framework could facilitate the sharing and exchange of fishery statistics and information among the countries in the region. Many countries in the region have already established their respective national fishery statistical standards. In some countries, such standards may have already been reviewed and improved to conform to the standards as well as definitions and classifications of fishery statistics at the international and regional levels such as those of the FAO and SEAFDEC. However, since this might not be the case for the other countries, harmonization of the varying systems is deemed necessary as this would eventually lead to the continuous sharing of fishery statistics and information in the region thus, contributing largely to the global effort of establishing the real picture of the fisheries in the whole world.

## III. COVERAGE

### 3.1 Statistical Coverage

The Regional Framework for Fishery Statistics of Southeast Asia covers the fishery statistics on Production; Fishing Vessels; Fishing Units; Fishers and Fish Farmers; Fish Price; Fish Processing; and Fish Trade. Production (landings) cover fishes, crustaceans, molluscs, seaweeds, and other aquatic animals and plants taken for all purposes (marine and inland capture fisheries and aquaculture) by all classes of fishing units and aquaculture activities operating in marine, brackishwater and freshwater areas, in appropriate geographical categories.

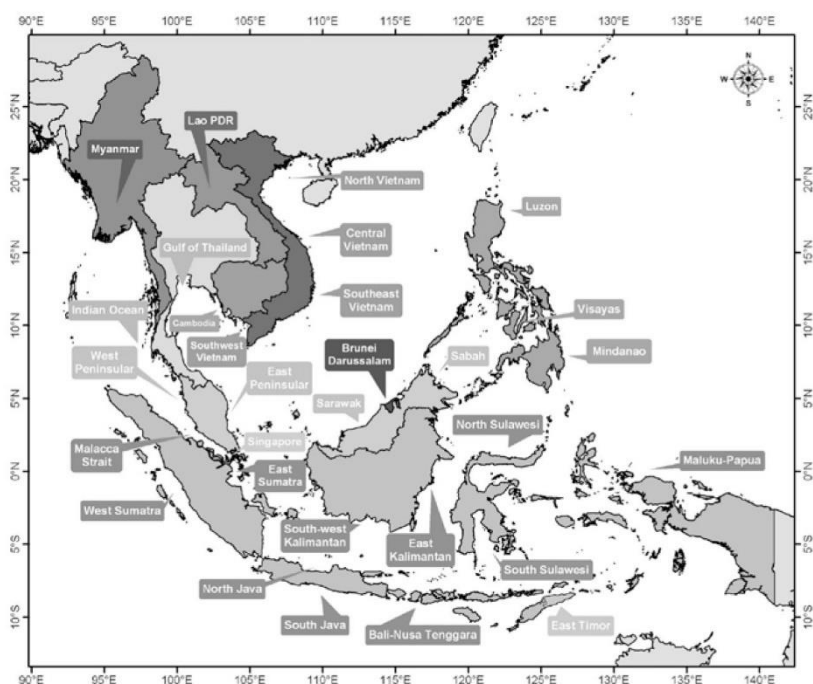
### 3.2 Geographical Coverage

The data also cover all production by commercial and small-scale fisheries and aquaculture activities in freshwater, brackishwater and marine waters from the designated FAO Fishing Area 57 (Indian Ocean, Easter), 71 (Pacific, Western Central), 61 (Pacific, Northwest), and 04 (Asia, Inland Water).

The countries and sub-areas to be used in marine fishery statistics are shown in the table and map below. The sub-areas used in the Regional Framework are established in consistent with the FAO Fishing Areas, as shown in the detailed map and described in **Appendix 1**.

Countries	Sub-areas (adopted in 2008)	Sub-areas (proposed change)
Brunei Darussalam		Brunei Muara
		Kuala Belait
		Tutong
		Temburing
Cambodia		
Indonesia	West Sumatra	
	South Java	
	Malacca Strait	
	East Sumatra	
	North Java	
	Bali-Nusa Tenggara	
	South-west Kalimantan	
	East Kalimantan	

	South Sulawesi	
	North Sulawesi	
	Maluku-Papua	
Lao PDR		
Malaysia	West Coast of Peninsular Malaysia	West Coast of Peninsular
	East Coast of Peninsular Malaysia	East Coast of Peninsular
	Sabah	Sabah
	Sarawak	Sarawak
		Labuan
Myanmar		Taninthayi
		Mon
		Yangon
		Rakhine
		Ayeyarwady
Philippines	Luzon	
	Visayas	
	Mindanao	
Singapore		
Thailand	Gulf of Thailand	
	Indian Ocean	
Timor Leste		
Viet Nam	North Vietnam	
	Central Vietnam	
	Southeast Vietnam	
	Southeast Vietnam	



Map of Southeast Asian Countries and their sub-areas (*map to be revised based on revised sub-areas*)

(Additional Parts of the Framework on 3.3.4 **Statistics on Fish Processing**; and 3.3.5 **Statistics on Fish Trade** would be discussed under sub-agenda:)

## B. EXPLANATORY NOTES OF THE FISHERY STATISTICAL BULLETIN OF SOUTHEAST ASIA

This part of the document is based on “**topic I**” of the current “Explanatory Notes” of the “Fishery Statistical Bulletin of Southeast Asia,” with some amendments proposed by SEAFDEC inserted as underlined text. The remaining part (**topic II**) of the Explanatory Notes would be modified by SEAFDEC corresponding to the relevant parts of the revised “Regional Framework” once this is finalized and adopted by the SEAFDEC Council.

### 1. GENERAL NOTES

#### 1.1 Data Sources

Data and information available from various sources could be used as inputs for the Fishery Statistical Bulletin. These include the data collected through statistical surveys, as well as records from government and semi-governmental organizations. In addition, data and information derived from new statistical techniques or small-scale surveys could also be used to provide inputs to the Fishery Statistical Bulletin.

#### 1.2 Incomplete Data

Although it is desirable that standardized and complete data be supplied for the Fishery Statistical Bulletin; data that may not be entirely compatible with the coverage, definition and classification but could be useful should also be reported by the countries, provided that the extent of incompleteness is indicated as a footnote.

#### 1.3 Time Reference

The reference period unit normally used in fishery statistics that will be compiled annually is the calendar year, the period between 1 January and 31 December of the reporting year. In cases where a country is unable to supply the statistics of the reporting year by the timeline as indicated, the latest data available may be given, provided that the year to which the data belongs is indicated in the space provided.

#### 1.4 Unit of Measurement

Unit of measurement used in the Bulletin are standardized as follows:

Fishery production statistics in quantity are reported in tonnes, except ornamental fish and reptiles which are reported in pieces or numbers.

Fishery production statistics in value are reported in USD 1,000.<sup>1</sup>

Fish prices are reported in USD/kg

#### 1.5 Standard Symbols and Abbreviations

The following standard symbols and abbreviations are used throughout the tables in the Fishery Statistical Bulletin:

...	=	Not available
-	=	Magnitude is zero or not applicable
0	=	Magnitude is insignificant, <i>i.e.</i> less than half of the measurement
<u>t</u>	=	<u>tonnes</u>
<u>USD 1,000</u>	=	1,000 dollars in U.S. currency
No.	=	Number
Q	=	Quantity
V	=	Value

<sup>1</sup> In reporting production in value, the amount reported in the national currencies should be converted to USD. Reference on the conversion from local currencies to a common standard should be based on the “ASEAN Statistical Yearbook”



#### **IV. REQUIRED CONSIDERATION BY THE RTC:**

- To consider and provide comments on revised part of the Regional Framework For Fishery Statistics Of Southeast Asia (topic I - topic III 3.2)
- To provide updated information on country's Fishing Area (based on Appendix I)
- To consider and provide comments on revised part of the Explanatory Notes of the Fishery Statistical Bulletin of Southeast Asia (topic I)

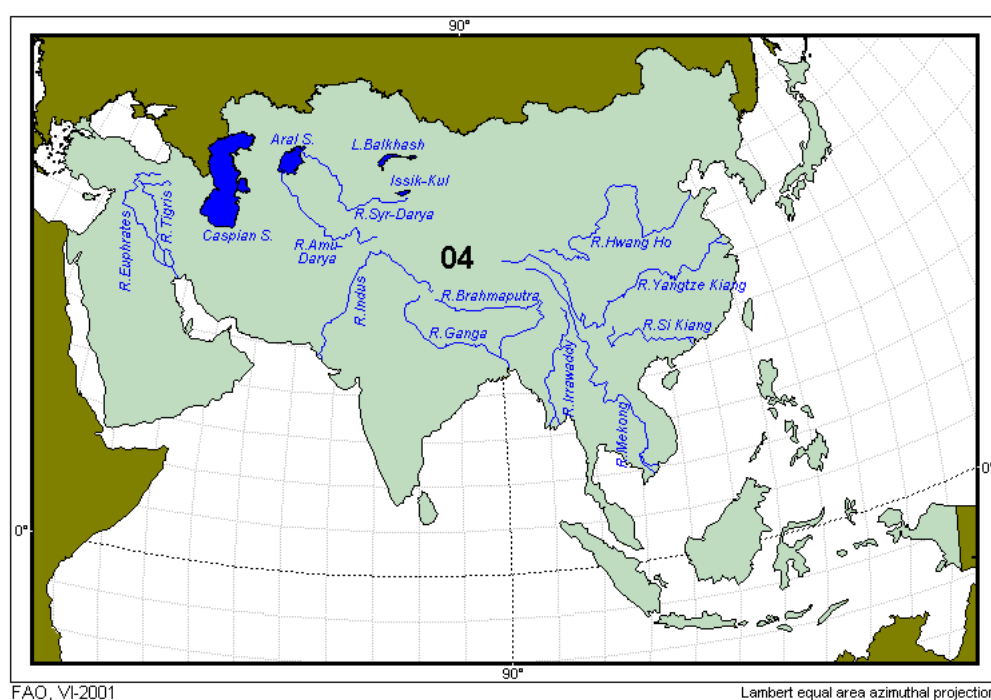
## CLASSIFICATION OF FISHING AREAS

The fishing areas of the Southeast Asian region, established for fishery statistical purposes, consist of inland and marine fishing areas, which is consistent with the definition and classification of capture fisheries. These are standardized in accordance with the FAO Major Fishing Areas, the boundaries of which were determined in consultation with international fishery agencies taking into account various considerations, including:

- (i) the boundary of national regions and the natural divisions of oceans and seas;
- (ii) the boundaries of adjacent statistical fisheries bodies already established in intergovernmental conventions and treaties;
- (iii) existing national practices;
- (iv) national boundaries;
- (v) the longitude and latitude grid system;
- (vi) the distribution of the aquatic fauna; and
- (vii) the distribution of the resources and the environmental conditions within an area.

### 1. Inland Fishing Areas

All inland waters of the Southeast Asian countries are identified under Area 04 (Asia, Inland Water). There is no sub-area for Asia (Fishing Area 04) that is recognized for the collection of catch and effort data for the Southeast Asian region. The data presented by Lao PDR, which is the sole landlocked country in the region, are therefore reported under Area 04 only.



Area 04, Asia-Inland Waters

### 2. Marine Fishing Areas

The marine fishing areas of the Southeast Asian countries are identified under Area 57 (Indian Oceans, Eastern), Area 71 (Pacific, Western Central) and Area 61 (Pacific, Northwest). Countries and their sub-areas to be used in marine fishery statistics are as follows:



Countries	Sub-areas (adopted in 2008)	FAO Marine Fishing Area	SEAFDEC Sub-areas
a) Brunei Darussalam		71	71i
		71	71b
b) Cambodia		57,71	
c) Indonesia	West Sumatra	57	57e
	South Java	57	57e
	Malacca Strait	57,71	57d, 71k
	East Sumatra	71	71k
	North Java	71	71k
	Bali-Nusa Tenggara	57	57f
	South-west Kalimantan	71	71k
	East Kalimantan	71	71k
	South Sulawesi	71	71k
	North Sulawesi	71	71k
	Maluku-Papua	71	71k
d) Malaysia		57,71	
	West Coast of Peninsular Malaysia	57	57c
	East Coast of Peninsular Malaysia	71	71e
	Sabah	71	71f
	Sarawak	71	71g
e) Myanmar		57	57a
f) Philippines	Luzon	71	71j
	Visayas	71	71j
	Mindanao	71	71j
g) Singapore		71	71h
h) Thailand	Gulf of Thailand	71	71a
	Indian Ocean	57	57b
i) Timor Leste		57	57g
j) Viet Nam	North Vietnam	61	61a
	Central Vietnam	61	61b
	Southeast Vietnam	71	71c
	Southeast Vietnam	71	71d

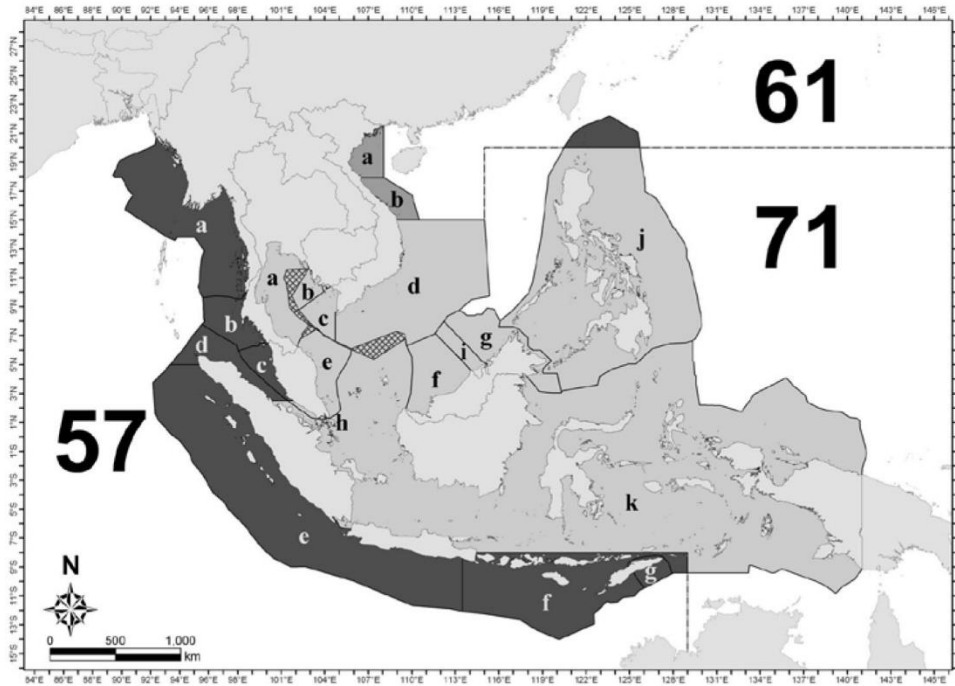
### Area 57 (Indian Ocean, Eastern)

Under fishing area 57, marine fishery statistics such as production, species, fishing gear, fishing vessel, fishing units, etc. will be collected and reported within the Exclusive Economic Zone<sup>2</sup> (EEZ) of each country.

To facilitate the reporting of the fishery statistics by each concerned country, the fishing area 57 in the Southeast Asian region can be divided into 6 sub-areas, which correspond to the existing EEZs of Myanmar, Thailand, Malaysia and Indonesia. The sub-areas under area 57 are as follows:

- Sub-area 57 a: Marine fishing area of Myanmar
- Sub-area 57 b: Marine fishing area of Thailand (Indian Ocean)
- Sub-area 57 c: Marine fishing area of Malaysia (West Coast of Peninsular Malaysia)
- Sub-area 57 d: Marine fishing area of Indonesia (Malacca Strait)
- Sub-area 57 e: Marine fishing area of Indonesia (West Sumatra and South Java)
- Sub-area 57 f: Marine fishing area of Indonesia (Bali-Nusa Tenggara)

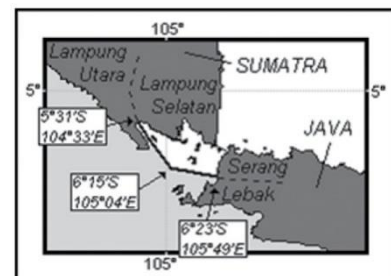
<sup>2</sup> Exclusive Economic Zone (EEZ) is: (1) a zone under national jurisdiction (up to 200-nautical miles wide) declared in line with the provisions of the 1982 United Nations Convention on the Law of the Sea, within which the coastal State has the right to explore and exploit, and the responsibility to conserve and manage the living and non-living resources; and (2) the area adjacent to a coastal State which encompasses all waters between (a) the seaward boundary of that State, (b) a line on which each point is 200 nautical miles (370.40 km) from the baseline of which the territorial sea of the coastal State is measured (except when other international boundaries need to be accommodated), and (c) the maritime boundaries agreed between that State and the neighboring states



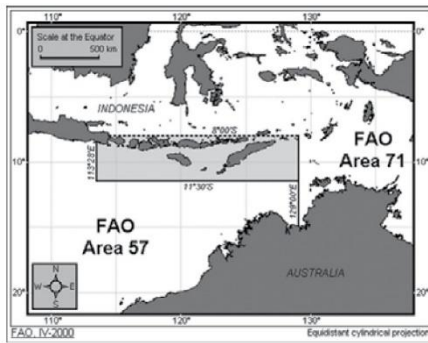
Fishing areas 57, 71 and 67, with the respective Sub-areas

**Boundaries between Areas 57 and 71**

1. At the Strait of Malacca, the areas bounded by a line commencing from East Sumatra and across the strait at 2°30'N latitude to meet the West Coast of Peninsular Malaysia.
2. At the marine waters between Sumatra and Java, the areas bounded by a line commencing on the coast of Sumatra at the boundary between the District of Lampung Utara and the District of Lampung Selatan at 5°31'S latitude, 104°33'E longitude. The boundary is running along a rhomb line between Cape Tjuku Redak on the mainland of Sumatra and Cape Batu Kebucung on the Island of Tebuan to the position 6°15'S latitude, 105°04'E longitude; then along a rhomb line between Cape Parat on the Island of Panaitan and the southeastern tip of the Island of Rakarta to the western coast of Java at the boundary between the District of Lebak and the District of Serang at 6°23'S latitude, 105°49'E longitude.
3. At the marine waters of Java and Bali-Nusa Tenggara, the areas bounded by a line commencing from 8°00'S latitude starting from the coast of South Java at Surabaya and running east to meet at 129°00'E longitude; thence running due south until meeting Northern coast of Australia. The area under the line is recognized as the fishing area 57 whereas those above the line are accepted as part of fishing area 71.



Boundary line for the Areas 57 and 71 at the marine waters between Sumatra and Java



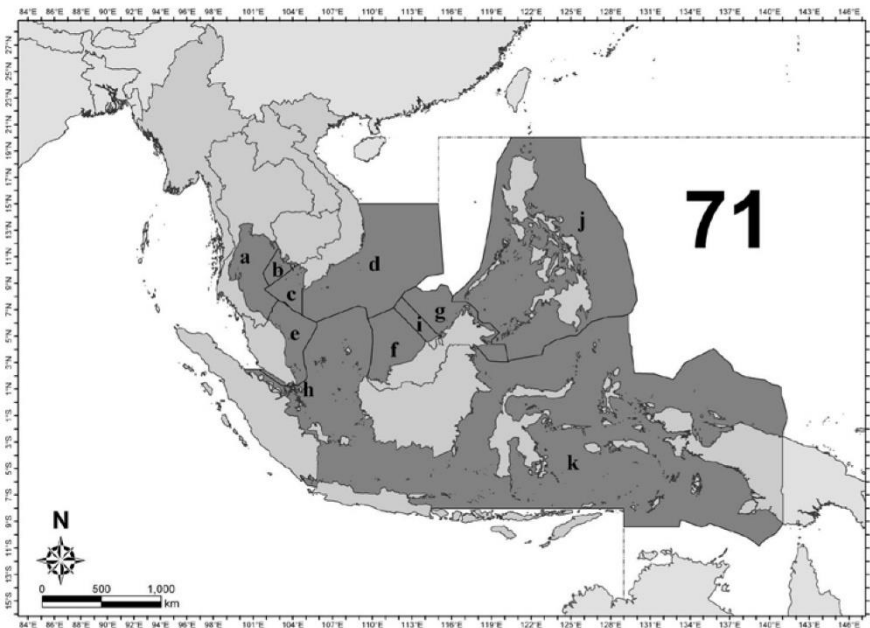
**Remark:**  
 ..... Present boundary line  
 — Former boundary line

*Boundary line for the Area 57 and 71 at the marine waters of South Java and Bali-Nusa Tenggara*

**Area 71 (Pacific, Western Central)**

Under fishing area 71, marine fishery statistics such as production, species, fishing gear, fishing vessel, fishing units, etc. will be collected and reported within the Exclusive Economic Zone (EEZ) of each country. There are 8 Southeast Asian countries identified under fishing area 71 covering Brunei Darussalam, Cambodia, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam. To facilitate reporting of the fishery statistics by each concerned country, the fishing area can be divided into 11 sub-areas corresponding to the existing EEZ of these countries. The sub-areas under area 71 are as follows.

- Sub-area 71 a: Marine fishing area of Thailand (Gulf of Thailand)
- Sub-area 71 b: Marine fishing area of Cambodia
- Sub-area 71 c: Marine fishing area of Vietnam (Southwest Viet Nam)
- Sub-area 71 d: Marine fishing area of Vietnam (Southeast Viet Nam)
- Sub-area 71 e: Marine fishing area of Malaysia (East Coast of Peninsular Malaysia)
- Sub-area 71 f: Marine fishing area of Malaysia (Sabah)
- Sub-area 71 g: Marine fishing area of Malaysia (Sarawak)
- Sub-area 71 h: Marine fishing area of Singapore
- Sub-area 71 i: Marine fishing area of Brunei Darussalam
- Sub-area 71 j: Marine fishing area of the Philippines (Luzon, Visayas, Mindanao)
- Sub-area 71 k: Marine fishing area of Indonesia (East Sumatra, North Java, Bali-Nusa Tenggara, South-West Kalimantan, East Kalimantan, South Sulawesi, North Sulawesi, Maluku-Papua)



*Sub-areas of Fishing Area 71 (Pacific, Western Central)*

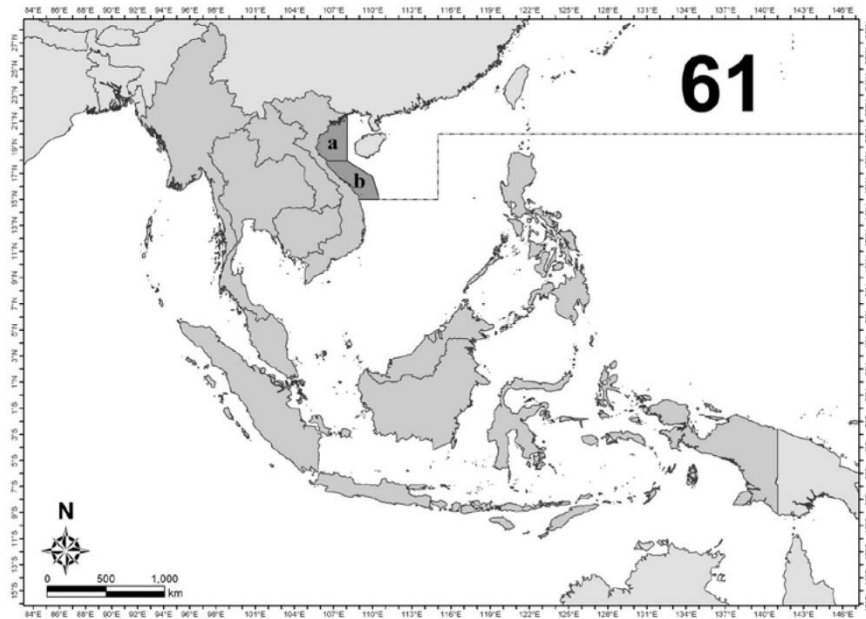


### Area 61 (Pacific, Northwest)

Under fishing area 61, the marine fishery statistics such as production, species, fishing gear, fishing vessel, fishing units, etc. will be collected and reported within the Exclusive Economic Zone (EEZ) of each concerned country, although here, there is only one country identified under fishing area 61, which is Viet Nam. The fishing area 61 can be divided into 2 sub-areas as follows:

Sub-area 61 a: Marine fishing area of Viet Nam (North Viet Nam)

Sub-area 61 b: Marine fishing area of Viet Nam (Central Viet Nam)



*Sub-areas of the Fishing Area 61 (Pacific, Northwest)*



**REVISION OF THE “REGIONAL FRAMEWORK FOR FISHERY STATISTICS OF SOUTHEAST ASIA” AND “EXPLANATORY NOTES OF THE FISHERY STATISTICAL BULLETIN OF SOUTHEAST ASIA” (GENERAL PARTS)**

*(as agreed at the 1<sup>st</sup> RTC in 2021)*

**A. REGIONAL FRAMEWORK FOR FISHERY STATISTICS OF SOUTHEAST ASIA**

**I. BACKGROUND AND IMPORTANCE OF THE REGIONAL FRAMEWORK**

In Southeast Asia, the importance of fishery statistics has been widely accepted as a tool in providing the basic foundation that is crucial to the formulation of national fisheries policies as well as national management frameworks and actions or even as basis for understanding the status and condition of the fishery resources. As basic structures to facilitate development planning and management of fisheries, the fishery statistical items and data set collected by countries could vary based on the priority needs and objectives of the countries. In addition, the complexity or extent of the respective countries’ national fishery statistical systems including the frameworks for collecting the national fishery statistics also depend on available resources, *i.e.* financial, institutional and human capacity.

In order to consolidate the factors that could minimize the differences in the current national statistical systems of the countries in Southeast Asia, SEAFDEC has initiated the revision of the Regional Framework so that this could better serve as a basic requirement (minimum requirement) for compiling fishery statistics and information that could be easily achieved by the countries in the region. Moreover, the need to strengthen and improve the countries’ national fishery statistics has been highlighted in the regional policy of the ASEAN and SEAFDEC, *i.e.* the ASEAN-SEAFDEC Resolution and Plan of Action on Sustainable Fisheries for Food Security in the New Millennium (ResPoA 2001), the ASEAN-SEAFDEC Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 (RES&POA-2020), and the subsequent RES&POA-2030. SEAFDEC therefore considered it necessary to address the common issues, problems and constraints through regional cooperation and collective actions under a regional framework in order that this can serve as basis for development planning and management of the region’s fisheries. Furthermore, considering the recent developments in the fisheries sector of Southeast Asia, revision of the Regional Framework is deemed necessary to enhance the usefulness of the framework for fishery statistics for Southeast Asia.

The compilation of fishery statistics in Southeast Asia has been regularly pursued by SEAFDEC since 1978 initially through the publication “Fishery Statistical Bulletin for the South China Sea Area.” However, the escalating situation in fisheries practices in the region and the new geo-political set-up of the ASEAN, has made it necessary to revise the existing framework of the regional fishery statistics and the usage of the Bulletin. In accordance with the policy directives given at the 36<sup>th</sup> Meeting of SEAFDEC Council in 2004, the SEAFDEC Secretariat organized a series of Regional Technical Consultations (RTC) with the Member Countries to develop a new framework for fishery statistics of Southeast Asia. The draft new Regional Framework was endorsed by the SEAFDEC Council at its 37<sup>th</sup> Meeting in 2005.

The draft of the new Regional Framework for Fishery Statistics of Southeast Asia developed by SEAFDEC was supported by the Member Countries at the RTC on Fishery Statistics and Information in December 2007. The Member Countries also agreed to adopt the new and improved framework as it contains the minimum requirements for the compilation national fishery statistics. The Regional Framework was endorsed by SEAFDEC Council at its 40<sup>th</sup> Meeting in April 2008 and subsequently, was also endorsed by the ASEAN Sectoral Working Group on Fisheries (ASWGFi) at its 16<sup>th</sup> Meeting in May 2008. The new Regional Framework, which includes major changes in the “area of coverage” and “statistical usage” to be consistent with the areas of competence of SEAFDEC as well as on the “standard definitions and classifications” to be consistent with the current regional requirements, has also been harmonized with the international standards. The new Regional Framework would play the major role of enhancing the regional collaborative framework on fishery statistics to facilitate wider sharing of data and information, as well as of providing the necessary inputs for the compilation of the Fishery Statistical Bulletin of Southeast Asia produced by SEAFDEC starting in 2008 that replaced the Fishery Statistical Bulletin for the South China Sea Area which was produced from 1978 to 2007.



It should be noted that this revision of the Regional Framework is in line with the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 which was adopted in 2020 and included the provision on the need to “*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.*” Furthermore, considering that after the development of the Regional Framework in 2008 there have been several changes in global frameworks and standards related to fishery statistics as well as the inclusion of additional statistics to enhance the usage of the Fishery Statistical Bulletin compiled by SEAFDEC for the benefit of the region. The Regional Framework was therefore reviewed in consultation with the ASEAN Member States, and the revised version of the Regional Framework was adopted by the SEAFDEC Council at its 56<sup>th</sup> Meeting in 2024 (to be finalized).

## **II. PURPOSE AND USAGE**

The SEAFDEC Council at its 36<sup>th</sup> Meeting in 2004 deemed it necessary to improve the compilation of regional fishery statistics and directed the SEAFDEC Secretariat to revise the framework of the compilation considering the new geo-political set-up of the ASEAN, the changing situation of the region’s fisheries as well as the differences in the current national statistical systems. Thus, the new Framework was developed to focus on the basic requirements that can be possibly achieved by the countries in the region without putting much burden on the national agencies responsible for the collection and compilation of fishery statistics. Furthermore, it is also deemed necessary that the new framework is harmonized with those of relevant international norms and standards in order to facilitate statistics compilation, analysis, and data exchange not only within the region but also at the global level, as well as enhance the usage of the statistics to support policy planning and management of fisheries toward sustainability.

### **2.1 Minimum Requirements for Fishery Statistics of Southeast Asia**

As envisaged, the revision of the Regional Framework would give many benefits to the ASEAN countries. Since the Regional Framework is considered as the “Minimum Requirement for Fishery Statistics of Southeast Asia,” its adoption would be beneficial to the countries in the region as it could be used as guide that facilitates a long-term improvement of their fishery statistics at the national level, provides better understanding and clear picture of the fisheries sector specifically in terms of the minimum requirements of fishery statistics, and advocates the harmonized standards and definitions in order to correspond to regional requirements and conform with international standards.

### **2.2 Frameworks of Inputs for the Development of International Norms and Standards**

Since the revised and unified Regional Framework contains the minimum requirements for the compilation of fishery statistics as well as the standards embodying the regional requirements, it could also be used in gathering inputs for the international development of norms and standards for fishery statistics. Harmonization of standard definitions and classifications reflecting the multi-species/gear tropical fisheries nature of Southeast Asia would facilitate the sharing of fishery statistics and information in the region as well as contributing to similar development at the global level. Therefore, improvement of the framework as well as the standard definitions and classification of fishery statistics through the revision of the Regional Framework could very well support such endeavors.

### **2.3 Enhanced Sharing of Fishery Information**

The standardized definitions and classification of fishery statistics under this Regional Framework could facilitate the sharing and exchange of fishery statistics and information among the countries in the region. Many countries in the region have already established their respective national fishery statistical standards. In some countries, such standards may have already been reviewed and improved to conform to the standards as well as definitions and classifications of fishery statistics at the international and regional levels such as those of the FAO and SEAFDEC. However, since this might not be the case for the other countries, harmonization of the varying systems is deemed necessary as this would eventually lead to the continuous sharing of fishery statistics and information in the region thus, contributing largely to the global effort of establishing the real picture of the fisheries in the whole world.

### III. COVERAGE

#### 3.1 Statistical Coverage

The Regional Framework for Fishery Statistics of Southeast Asia covers the fishery statistics on Production; Fishing Vessels; Fishing Units; Fishers and Fish Farmers; Fish Price; Fish Processing; and Fish Trade. Production (landings) cover fishes, crustaceans, molluscs, seaweeds, and other aquatic animals and plants taken for all purposes (marine and inland capture fisheries and aquaculture) by all classes of fishing units and aquaculture activities operating in marine, brackishwater and freshwater areas, in appropriate geographical categories.

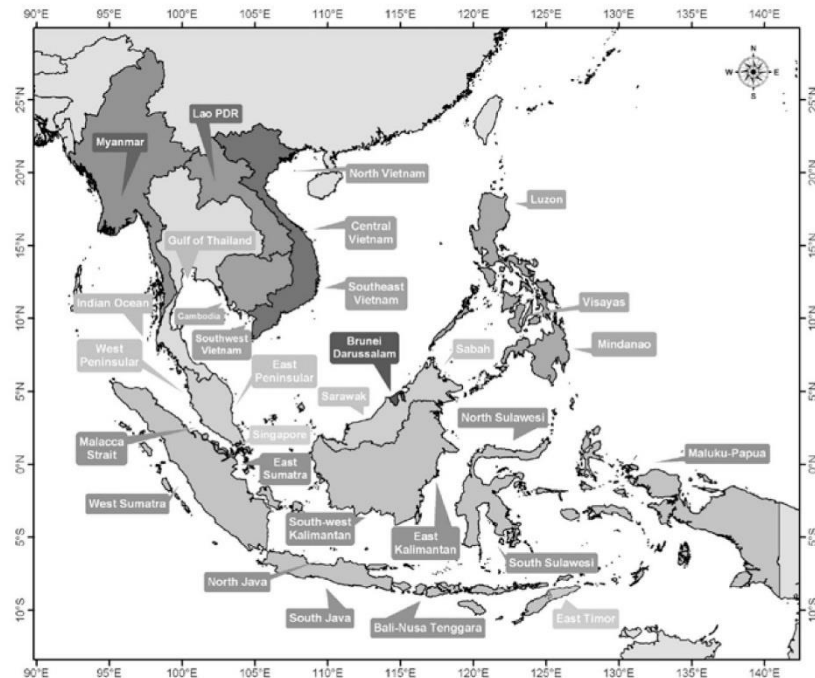
#### 3.2 Geographical Coverage

The data also cover all production by commercial and small-scale fisheries and aquaculture activities in freshwater, brackishwater and marine waters from the designated FAO Fishing Area 57 (Indian Ocean, Eastern), 71 (Pacific, Western Central), 61 (Pacific, Northwest), and 04 (Asia, Inland Water).

The countries and sub-areas to be used in marine fishery statistics are shown in the table and map below. The sub-areas used in the Regional Framework are established in consistent with the FAO Fishing Areas, as shown in the detailed map and described in **Appendix 1**.

Countries	Sub-areas (adopted in 2008)	Sub-areas (as updated at the 1 <sup>st</sup> RTC)
a) Brunei Darussalam		Brunei Muara
		Kuala Belait
		Tutong
		Temburong
b) Cambodia		
c) Indonesia	West Sumatra	(To be confirmed)
	South Java	
	Malacca Strait	
	East Sumatra	
	North Java	
	Bali-Nusa Tenggara	
	South-west Kalimantan	
	East Kalimantan	
	South Sulawesi	
	North Sulawesi	
	Maluku-Papua	
d) Lao PDR		
e) Malaysia	West Coast of Peninsular Malaysia	West Coast of Peninsular Malaysia
	East Coast of Peninsular Malaysia	East Coast of Peninsular Malaysia
	Sabah	Sabah
	Sarawak	Sarawak
		Labuan
f) Myanmar		Tanintharyi
		Mon
		Yangon
		Rakhine
		Ayeyarwady (To be confirmed)
g) Philippines	Luzon	Luzon
	Visayas	Visayas
	Mindanao	Mindanao
h) Singapore		
i) Thailand	Gulf of Thailand	Gulf of Thailand
	Indian Ocean	Indian Ocean
j) Timor Leste		

k) Viet Nam	North Vietnam	North Vietnam
	Central Vietnam	Central Vietnam
	Southwest Vietnam	Southwest Vietnam
	Southeast Vietnam	Southeast Vietnam



Map of Southeast Asian Countries and their sub-areas (*map to be revised based on revised sub-areas*)

Additional parts of the Framework on 3.3.4 **Statistics on Fish Processing** and 3.3.5 **Statistics on Fish Trade** as agreed during the 1<sup>st</sup> RTC appear as **Annex 20** and **Annex 23**.

## **B. EXPLANATORY NOTES OF THE FISHERY STATISTICAL BULLETIN OF SOUTHEAST ASIA**

### **1. GENERAL NOTES**

#### **1.1 Data Sources**

Data and information available from various sources could be used as inputs for the Fishery Statistical Bulletin. These include the data collected through statistical surveys, as well as records from government and semi-governmental organizations. In addition, data and information derived from new statistical techniques or small-scale surveys could also be used to provide inputs to the Fishery Statistical Bulletin.

#### **1.2 Incomplete Data**

Although it is desirable that standardized and complete data be supplied for the Fishery Statistical Bulletin; data that may not be entirely compatible with the coverage, definition and classification but could be useful should also be reported by the countries, provided that the extent of incompleteness is indicated as a footnote.

#### **1.3 Time Reference**

The reference period unit normally used in fishery statistics that will be compiled annually is the calendar year, the period between 1 January and 31 December of the reporting year. In cases where a country is unable to supply the statistics of the reporting year by the timeline as indicated, the latest data available may be given, provided that the year to which the data belongs is indicated in the space provided.

#### **1.4 Unit of Measurement**

Unit of measurement used in the Bulletin are standardized as follows:

Fishery production statistics in quantity are reported in tonnes, except ornamental fish, and reptiles which are reported in pieces or numbers.

Fishery production statistics in value are reported in USD 1,000. <sup>3</sup>

Fish prices are reported in USD/kg

#### **1.5 Standard Symbols and Abbreviations**

The following standard symbols and abbreviations are used throughout the tables in the Fishery Statistical Bulletin:

...	=	Not available
-	=	Magnitude is zero or not applicable
0	=	Magnitude is insignificant, <i>i.e.</i> less than half of the measurement
t	=	tonnes
USD 1,000	=	1,000 dollars in U.S. currency
No.	=	Number
Q	=	Quantity
V	=	Value

---

<sup>3</sup> In reporting production in value, the amount reported in the national currencies should be converted to USD. Reference on the conversion from local currencies to a common standard should be based on the "International Monetary Fund (IMF)."

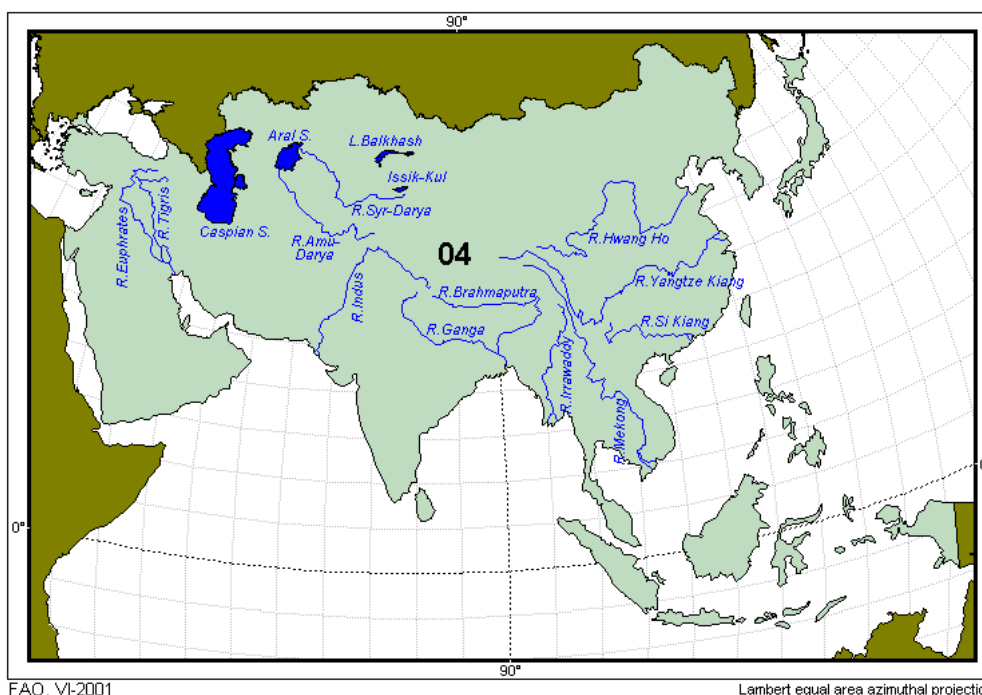
### CLASSIFICATION OF FIAHING AREAS

The fishing areas of the Southeast Asian region, established for fishery statistical purposes, consist of inland and marine fishing areas, which is consistent with the definition and classification of capture fisheries. These are standardized in accordance with the FAO Major Fishing Areas, the boundaries of which were determined in consultation with international fishery agencies taking into account various considerations, including:

- the boundary of national regions and the natural divisions of oceans and seas;
- the boundaries of adjacent statistical fisheries bodies already established in intergovernmental conventions and treaties;
- existing national practices;
- national boundaries;
- the longitude and latitude grid system;
- the distribution of the aquatic fauna; and
- the distribution of the resources and the environmental conditions within an area.

#### 1. Inland Fishing Areas

All inland waters of the Southeast Asian countries are identified under Area 04 (Asia, Inland Water). There is no sub-area for Asia (Fishing Area 04) that is recognized for the collection of catch and effort data for the Southeast Asian region. The data presented by Lao PDR, which is the sole landlocked country in the region, are therefore reported under Area 04 only.



Area 04, Asia-Inland Waters

#### 2. Marine Fishing Areas (to be revised based on updated sub-areas)

The marine fishing areas of the Southeast Asian countries are identified under Area 57 (Indian Oceans, Eastern), Area 71 (Pacific, Western Central) and Area 61 (Pacific, Northwest). Countries and their sub-areas to be used in marine fishery statistics are as follows:

Countries	Sub-areas (adopted in 2008)	FAO Marine Fishing Area	SEAFDEC Sub-areas
k) Brunei Darussalam		71	71i
		71	71b
l) Cambodia		57,71	



m) Indonesia	West Sumatra	57	57e
	South Java	57	57e
	Malacca Strait	57,71	57d, 71k
	East Sumatra	71	71k
	North Java	71	71k
	Bali-Nusa Tenggara	57	57f
	South-west Kalimantan	71	71k
	East Kalimantan	71	71k
	South Sulawesi	71	71k
	North Sulawesi	71	71k
	Maluku-Papua	71	71k
n) Malaysia		57,71	
	West Coast of Peninsular Malaysia	57	57c
	East Coast of Peninsular Malaysia	71	71e
	Sabah	71	71f
	Sarawak	71	71g
o) Myanmar		57	57a
p) Philippines	Luzon	71	71j
	Visayas	71	71j
	Mindanao	71	71j
q) Singapore		71	71h
r) Thailand	Gulf of Thailand	71	71a
	Indian Ocean	57	57b
s) Timor Leste		57	57g
t) Viet Nam	North Vietnam	61	61a
	Central Vietnam	61	61b
	Southeast Vietnam	71	71c
	Southeast Vietnam	71	71d

### Area 57 (Indian Ocean, Eastern)

Under fishing area 57, marine fishery statistics such as production, species, fishing gear, fishing vessel, fishing units, etc. will be collected and reported within the Exclusive Economic Zone<sup>4</sup> (EEZ) of each country. To facilitate the reporting of the fishery statistics by each concerned country, the fishing area 57 in the Southeast Asian region can be divided into 6 sub-areas, which correspond to the existing EEZs of Myanmar, Thailand, Malaysia and Indonesia. The sub-areas under area 57 are as follows:

Sub-area 57 a: Marine fishing area of Myanmar

Sub-area 57 b: Marine fishing area of Thailand (Indian Ocean)

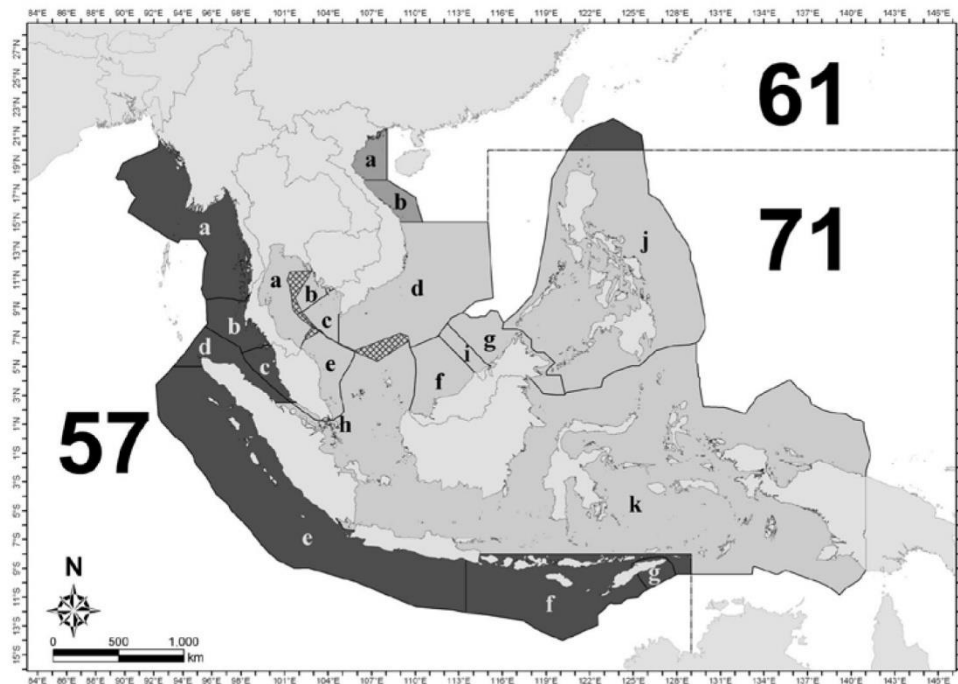
Sub-area 57 c: Marine fishing area of Malaysia (West Coast of Peninsular Malaysia)

Sub-area 57 d: Marine fishing area of Indonesia (Malacca Strait)

Sub-area 57 e: Marine fishing area of Indonesia (West Sumatra and South Java)

Sub-area 57 f: Marine fishing area of Indonesia (Bali-Nusa Tenggara)

<sup>4</sup> Exclusive Economic Zone (EEZ) is; (1) a zone under national jurisdiction (up to 200-nautical miles wide) declared in line with the provisions of the 1982 United Nations Convention on the Law of the Sea, within which the coastal State has the right to explore and exploit, and the responsibility to conserve and manage the living and non-living resources; and (2) the area adjacent to a coastal State which encompasses all waters between (a) the seaward boundary of that State, (b) a line on which each point is 200 nautical miles (370.40 km) from the baseline of which the territorial sea of the coastal State is measured (except when other international boundaries need to be accommodated), and (c) the maritime boundaries agreed between that State and the neighboring states



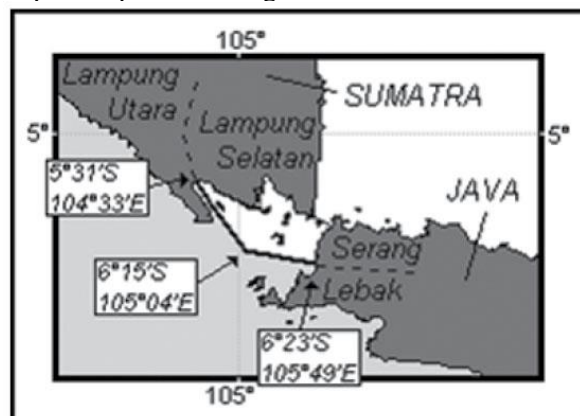
Fishing areas 57, 71 and 67, with the respective Sub-areas

### Boundaries between Areas 57 and 71

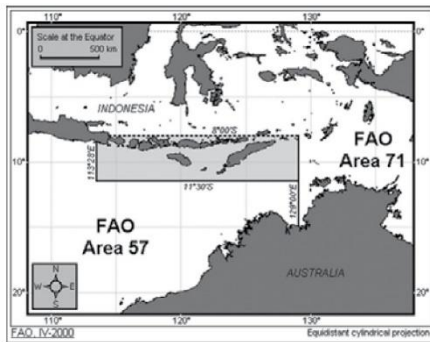
At the Strait of Malacca, the areas bounded by a line commencing from East Sumatra and across the strait at 2°30'N latitude to meet the West Coast of Peninsular Malaysia.

At the marine waters between Sumatra and Java, the areas bounded by a line commencing on the coast of Sumatra at the boundary between the District of Lampung Utara and the District of Lampung Selatan at 5°31'S latitude, 104°33'E longitude. The boundary is running along a rhomb line between Cape Tjuku Redak on the mainland of Sumatra and Cape Batu Kebucung on the Island of Tebuan to the position 6°15'S latitude, 105°04'E longitude; then along a rhomb line between Cape Parat on the Island of Panaitan and the southeastern tip of the Island of Rakarta to the western coast of Java at the boundary between the District of Lebak and the District of Serang at 6°23'S latitude, 105°49'E longitude.

At the marine waters of Java and Bali-Nusa Tenggara, the areas bounded by a line commencing from 8°00'S latitude starting from the coast of South Java at Surabaya and running east to meet at 129°00'E longitude; thence running due south until meeting Northern coast of Australia. The area under the line is recognized as the fishing area 57 whereas those above the line are accepted as part of fishing area 71.



Boundary line for the Areas 57 and 71 at the marine waters between Sumatra and Java



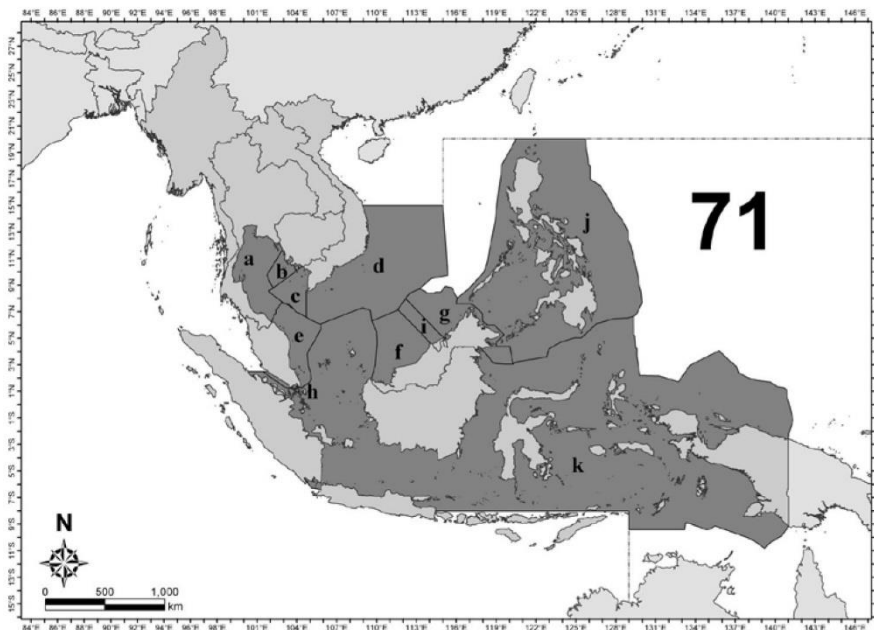
**Remark:**  
 ..... Present boundary line  
 — Former boundary line

*Boundary line for the Area 57 and 71 at the marine waters of South Java and Bali-Nusa Tenggara*

**Area 71 (Pacific, Western Central)**

Under fishing area 71, marine fishery statistics such as production, species, fishing gear, fishing vessel, fishing units, etc. will be collected and reported within the Exclusive Economic Zone (EEZ) of each country. There are 8 Southeast Asian countries identified under fishing area 71 covering Brunei Darussalam, Cambodia, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam. To facilitate reporting of the fishery statistics by each concerned country, the fishing area can be divided into 11 sub-areas corresponding to the existing EEZ of these countries. The sub-areas under area 71 are as follows.

- Sub-area 71 a: Marine fishing area of Thailand (Gulf of Thailand)
- Sub-area 71 b: Marine fishing area of Cambodia
- Sub-area 71 c: Marine fishing area of Vietnam (Southwest Viet Nam)
- Sub-area 71 d: Marine fishing area of Vietnam (Southeast Viet Nam)
- Sub-area 71 e: Marine fishing area of Malaysia (East Coast of Peninsular Malaysia)
- Sub-area 71 f: Marine fishing area of Malaysia (Sabah)
- Sub-area 71 g: Marine fishing area of Malaysia (Sarawak)
- Sub-area 71 h: Marine fishing area of Singapore
- Sub-area 71 i: Marine fishing area of Brunei Darussalam
- Sub-area 71 j: Marine fishing area of the Philippines (Luzon, Visayas, Mindanao)
- Sub-area 71 k: Marine fishing area of Indonesia (East Sumatra, North Java, Bali-Nusa Tenggara, South-West Kalimantan, East Kalimantan, South Sulawesi, North Sulawesi, Maluku-Papua)



*Sub-areas of Fishing Area 71 (Pacific, Western Central)*

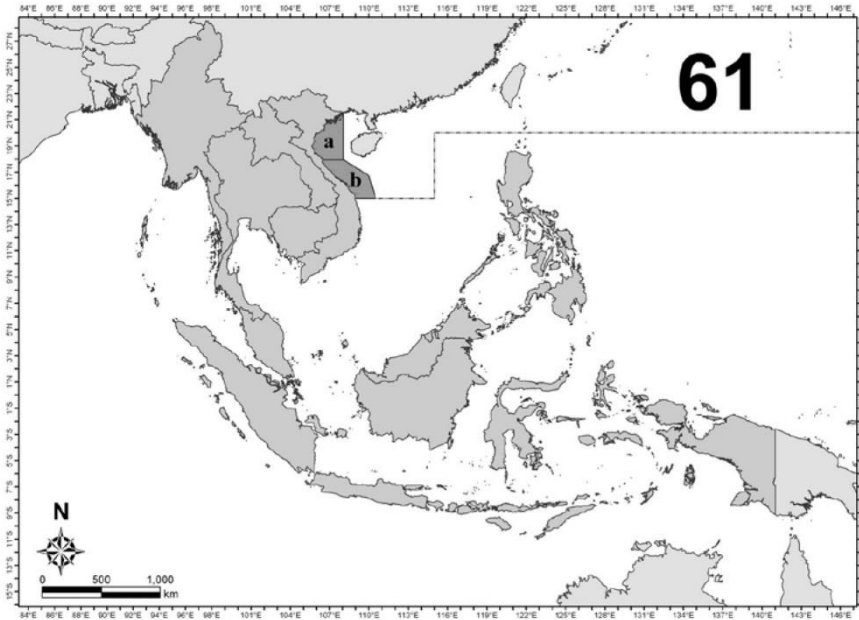


### Area 61 (Pacific, Northwest)

Under fishing area 61, the marine fishery statistics such as production, species, fishing gear, fishing vessel, fishing units, etc. will be collected and reported within the Exclusive Economic Zone (EEZ) of each concerned country, although here, there is only one country identified under fishing area 61, which is Viet Nam. The fishing area 61 can be divided into 2 sub-areas as follows:

Sub-area 61 a: Marine fishing area of Viet Nam (North Viet Nam)

Sub-area 61 b: Marine fishing area of Viet Nam (Central Viet Nam)



*Sub-areas of the Fishing Area 61 (Pacific, Northwest)*

## REGIONAL COMPILATION OF FISH PROCESSING STATISTICS

Before, the “Fish Processing Statistics” were compiled by SEAFDEC for the “Fishery Statistical Bulletin for the South China Sea Area” (until 2007). However, after the adoption of the new “Regional Framework for Fishery Statistics of Southeast Asia” in 2008, the statistics on fish processing were no longer included and compiled for the “Fishery Statistical Bulletin of Southeast Asia” (2008 and onwards). Nevertheless, considering the importance of the data on fish processing as these could provide the scenario on how the catch is utilized through different kinds of processing, SEAFDEC proposed that the statistics on fish processing should be included in the future compilation of the Fishery Statistical Bulletin of Southeast Asia. **Appropriate classification and definitions as well as the data items are, however, subject for discussion at the RTC.**

In this paper, it is proposed that reporting of fish processing statistics would be based on the SEAFDEC standard classification of Fishery Products applied by SEAFDEC for compiling the “Fish Processing Statistics” in the “Fishery Statistical Bulletin for the South China Sea Area.” Such standard was originally amended at the Sixth Regional Workshop on Fishery Statistics in 1986 and the Regional Workshop on Fishery Information and Statistics in Asia in 1994, when the classification of Fishery Products on Fish Processing was revised again to take into consideration the recent developments of fishery products in the region.

### I. PROPOSED ADDENDUM TO THE “REGIONAL FRAMEWORK”

*(Adapted from the “Explanatory Notes” of the Fishery Statistical Bulletin for the South China Sea Area)*

#### 3.3.4 Statistics on Fish Processing

##### a. Coverage and Classification

Fish processing statistics cover the processing establishments and their productions, of all aquatic animals and plants produced in freshwater, brackishwater, and marine water, using raw materials from domestic or imported products.

The statistics on processing establishments and productions should include companies, cooperatives households, etc., which preserve and process aquatic animals, regardless of the size of the operation. However, a household, which processes exclusively for own-consumption is excluded, and only household processing to sell the products are included.

The statistics classification on fish processing should be based on the following eleven groups of commodities:

Group of Commodities	Type of Commodities
1. Frozen	Frozen products: frozen, round or dresses, fish fillets, cuttles, etc.
2. Canned	Canned products: processed and sealed hermetically in can containers
3. Dried	Dried products: commonly described as salted dried products, <i>e.g.</i> dried fish/shrimp/squid, etc.
4. Smoked	Smoked products: smoked fish, etc.
5. Boiled	Boiled products: processed either by cooking in boiling water or in steam
6. Fermented	Fermented products: fermented fish/squid, fish/shrimp paste, fish sauce, etc.
7. Cured	Cured products: processed by picking or salting without drying, <i>e.g.</i> cured fish
8. Comminuted	Comminuted products: 1) Frozen surimi 2) Other comminuted products: fish jelly products, fish ball, fish cake, fish/prawn sausages and burger, etc.



Group of Commodities	Type of Commodities
9. Reduced	Fish oils: edible and inedible oils; fish meals and fertilizers
10. Powdered/flaked	Powdered products: fish floss, prawn dust, granulated or flaked products
11. Others	Other fish products: include crackers made from prawn, squid or fish, barbecued fish (satay), prepared cuttlefish and seaweed, and products not described above

## b. Fish Processing Establishments and Production

### b.1 Unit of Measurement

#### 1) *Number of processing establishments*

The data on processing establishments is expressed in number. The number of establishments is generally classified by the group of commodities. Therefore, for a processing establishment which processes more than two groups of commodities, the establishment is counted by the number of each group of commodities. The total number of establishments is obtained as results of an accumulation of the number counted for each group of commodities. This means that the total number do not always show the actual number of establishments.

#### 2) *Production of processed products*

The production of processed products is expressed in net weight in tonnes. The production is generally recorded by summing up the total production from all processing establishments, classified by the group of commodities.

### b.2 Statistics on Fish Processing Establishments and Production

#### 1) *Number of processing establishments*

The data on processing establishments are expressed in number, and broken down by groups of commodities.

#### 2) *Production of processed products*

The production of processed products are expressed in tonnes, and broken down by groups of commodities.

## II. REPORTING OF STATISTICS ON FISH PROCESSING

*(Based on the Fishery Statistical Bulletin for the South China Sea Area)*

### Number of fish processing establishments and production

Country	Year	Frozen		Canned		Dried		Smoked	
		No. of Establishments	Production (t)	No. of Establishments	Production (t)	No. of Establishments	Production (t)	No. of Establishments	Production (t)

*Cont'd*

Country	Year	Boiled		Fermented				Cured	
		No. of Establishments	Production (t)	Fish sauce		Paste		No. of Establishments	Production (t)
				No. of Establishments	Production (t)	No. of Establishments	Production (t)		

*Cont'd*

Country	Year	Comminuted				Reduced		Powdered/flaked	
		Frozen surimi		Other comminuted products		No. of Establishments	Production (t)	No. of Establishments	Production (t)
		No. of Establishments	Production (t)	No. of Establishments	Production (t)				

*Cont'd*

Country	Year	Others	
		No. of Establishments	Production (t)

**REQUIRED CONSIDERATION BY THE RTC:**

- To consider and provide comments on proposed addendum to the Regional Framework
- To consider appropriate classification and definitions on Group of Commodities for fish processing
- To consider the proposed Reporting of Statistics on Fish Processing, *e.g.*:
  - whether it would be necessary (or more appropriate) to have a table that separates the number of establishments and production?
- To note that SEAFDEC will further develop new sets of questionnaire on fish processing to request additional data from AMSs in the future





## Annex 19

**AVAILABILITY OF DATA ON NUMBER OF FISH PROCESSING ESTABLISHMENTS BY  
COMMODITY AND PRODUCTION BY COMMODITIES**

Country	Number of fish processing establishments by commodity	Production by commodities (tonnes)
Brunei Darussalam	YES	YES
Cambodia	YES	YES
Indonesia	YES	YES
Lao PDR	YES	YES
Malaysia	YES (only registered with DOF)	NO
Myanmar	YES	YES
Philippines	NO	NO
Singapore	YES (only one figure as others)	NO
Thailand	YES (only for marine fish)	NO
Viet Nam	YES (only one figure as others)	NO

**List of Fishery Commodities for Fish Processing Statistics**

Commodity	BR	KH	ID	LA	MY	MM	PH	SG	TH	VN
Smoked		YES	YES	YES	YES		NO	NO	YES	NO
Frozen	YES	YES	YES	YES	YES	YES			YES*	
Canned			YES						YES	
Dried		YES	YES	YES	YES	YES			YES	
Extraction			YES							
Fermented (including fish sauce, Budu sauce)	YES	YES	YES	YES	YES				YES	
Chilled		YES	YES		YES	YES				
Salted	YES (salted & dried)	YES	YES	YES	YES	YES			YES	
Boiled			YES							
Minced			YES	YES	YES	YES				
Surimi (e.g. fish ball, fish cake, crab stick)	YES	YES	YES	YES	YES	YES				
Cracker	YES				YES				YES	
Fish meal	YES				YES	YES			YES	
Fresh microalgae	YES									
Others (if any, please add)			YES					YES		

\* Thailand: frozen include chilled



## REGIONAL COMPILATION OF FISH PROCESSING STATISTICS

(as agreed during the 1<sup>st</sup> RTC in 2021)

### I. ADDENDUM TO THE “REGIONAL FRAMEWORK”

#### 3.3.4 Statistics on Fish Processing

##### a. Coverage and Classification

Fish processing statistics cover the processing establishments and their productions, of all aquatic animals and plants produced in freshwater, brackishwater, and marine water, using raw materials from domestic or imported products.

The statistics on processing establishments and productions should include companies, cooperatives households, etc., which preserve and process aquatic animals, regardless of the size of the operation. However, a household that processes products exclusively for own-consumption is excluded, while only those households that process products for sale are included.

The statistics classification on fish processing should be based on fifteen (15) commodities as follows:

1. Frozen
2. Chilled
3. Dried
4. Salted
5. Smoked
6. Boiled
7. Canned
8. Fermented (including fish sauce)
9. Minced
10. Surimi (*e.g.* fish ball, fish cake, crab stick)
11. Cracker
12. Extraction
13. Fish meal
14. Fresh microalgae
15. Others

##### b. Fish Processing Establishments and Production

###### b.1 Unit of Measurement

###### 1) *Number of processing establishments*

The data on processing establishments is expressed in number. The number of establishments is generally classified by commodities. Therefore, for a processing establishment which processes more than one commodity, the establishment is counted by the number of each commodity produced. The total number of establishments is obtained as results of an accumulation of the number counted for each commodity. This means that the total number does not necessarily reflect the actual number of establishments.

###### 2) *Production of processed products*

The production of processed products is expressed in net weight of final products in tonnes. The production is generally recorded by summing up the total production from all processing establishments, classified by commodities.

## b.2 Statistics on Fish Processing Establishments and Production

### 1) Number of processing establishments

The data on processing establishments is expressed in number, and broken down by commodities.

### 2) Production of processed products

The production of processed products is expressed in tonnes, and broken down by commodities.

## II. REPORTING OF STATISTICS ON FISH PROCESSING

### Fish processing establishments and production

Country	Year	Frozen		Chilled		Dried		Salted	
		No. of Establishments	Production (t)	No. of Establishments	Production (t)	No. of Establishments	Production (t)	No. of Establishments	Production (t)

*Cont'd*

Country	Year	Smoked		Boiled		Canned		Fermented	
		No. of Establishments	Production (t)	No. of Establishments	Production (t)	No. of Establishments	Production (t)	No. of Establishments	Production (t)

*Cont'd*

Country	Year	Minced		Surimi		Cracker		Extraction	
		No. of Establishments	Production (t)	No. of Establishments	Production (t)	No. of Establishments	Production (t)	No. of Establishments	Production (t)

*Cont'd*

Country	Year	Fish meal		Fresh microalgae		Others	
		No. of Establishments	Production (t)	No. of Establishments	Production (t)	No. of Establishments	Production (t)

## REGIONAL COMPILATION OF FISH TRADE STATISTICS

Before, the “Statistics on Exports and Imports of Fishery Commodities” were compiled by SEAFDEC for the “Fishery Statistical Bulletin for the South China Sea Area” (until 2007). However, after the adoption of the new “Regional Framework for Fishery Statistics of Southeast Asia,” such statistics were no longer included and compiled for the “Fishery Statistical Bulletin of Southeast Asia” (2008 and onwards), considering that the statistics on export and import are collected by the respective national Customs Department and not by the fisheries-related agencies of the countries. Nevertheless, since compilation of data on fish export and import is crucial for providing the scenario on intra-regional and international trade of fish and fishery products of the Southeast Asian countries. SEAFDEC proposed that statistics on exports and imports of fishery commodities should be included in the future Fishery Statistical Bulletin of Southeast Asia. **Appropriate classification and definitions, as well as the data items are, however, subject for discussion at the RTC.**

In this paper, it is proposed that the reporting of statistics on exports and imports of fishery commodities should be based on the FAO International Standard Statistical Classification of Fishery Commodities (ISSCFC) and should also be linked with the Harmonized Commodity Description and Coding System (HS) of the World Customs Organization.

### I. PROPOSED ADDENDUM TO THE “REGIONAL FRAMEWORK”

*(Adapted from the “Explanatory Notes” of the Fishery Statistical Bulletin for the South China Sea Area)*

#### 3.3.5 Statistics on Exports and Imports of Fishery Commodities

##### a. Coverage and Classification

The statistics cover the quantities and values of annual exports and imports of all fishery commodities ranging from live fish to preserved and processed commodities. In accordance with the internationally recommended practice, export statistics include exports of aquatic animals and plants caught (or collected) by domestic fishing vessels, whether or not processed onboard, landed in foreign ports; while import statistics include imports of aquatic animals and plants caught (or collected) by foreign fishing vessels, whether or not processed onboard, landed in domestic ports.

The statistics should be based on the following twelve commodities:

- 1) Live fish
- 2) Fish, fresh or chilled excluding fillets and other fish meat
- 3) Fish, frozen excluding fish fillets and other fish meat
- 4) Fish fillets and meats, fresh or chilled
- 5) Fish fillets and meat, frozen
- 6) Fish, dried, salted or in brine; smoked fish
- 7) Crustaceans live, fresh, chilled, frozen, salted, in brine or dried, smoked
- 8) Molluscs live, fresh, chilled, frozen, salted, in brine or dried, smoked
- 9) Fish, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved
- 10) Meals, solubles and similar animal feed stuffs, of aquatic animal origin
- 11) Aquatic animals, oils and fats
- 12) Seaweeds and aquatic plants products thereof

The statistics based on the list of fishery commodities for export and import statistics, should be classified further based on [selected items in] the “FAO International Standard Statistical Classification of Fishery Commodities (ISSCFC)” and also linked with the “Harmonized Commodity Description and Coding System (HS)” of the World Customs Organization, attached as **Appendix 1**.



## **b. Exports of Fishery Commodities**

### **b.1 Unit of Measurement**

#### **1) Exports by commodities**

Statistics on exports by commodities is expressed in volume (tonnes) and value (US\$ 1,000).

#### **2) Exports of [selected] major commodities by countries of destination**

Statistics on exports of [selected] major commodities, by countries of destination [or/and *Alt 2* -- Statistics on exports of countries, by [selected] major commodities and by countries of destination] is expressed in value (USD 1,000).

### **b.2 Statistics on Exports of Fishery Commodities**

#### **1) Exports by commodities**

The statistics on exports by commodities is recorded by summing up the total annual exports of fishery commodities, and broken down by commodities based on the ISSCFC and linked with the HS Code.

#### **2) Exports of [selected] major commodities by countries of destination**

The statistics on exports of [selected] major commodities by countries of destination [or/and *Alt 2* -- Statistics on exports of countries, by [selected] major commodities and by countries of destination] is generally recorded by summing up the annual exports of selected commodities, and broken down by countries of destination

## **c. Imports of Fishery Commodities**

### **b.1 Unit of Measurement**

#### **1) Imports by commodities**

Statistics on imports by commodities is expressed in volume (tonnes) and value (USD 1,000).

#### **2) Imports of [selected] major commodities by countries of origin**

Statistics on imports of [selected] major commodities by countries of origin [or/and *Alt 2* -- Statistics on imports of countries, by [selected] major commodities and by countries of origin] is expressed in value (USD 1,000).

### **b.2 Statistics on Imports of Fishery Commodities**

#### **1) Imports by commodities**

The statistics imports by commodities is recorded by summing up the total annual imports of fishery commodities, and broken down by commodities based on the ISSCFC and linked with the HS Code.

#### **2) Imports of [selected] major commodities by countries of origin**

The statistics on imports of [selected] major commodities by countries of origin [or/and *Alt 2* -- Statistics on imports of countries, by [selected] major commodities and by countries of origin] is generally recorded by summing up the annual imports of selected commodities, and broken down by countries of origin

## 1.1 Data Source

The export and import statistics are generally obtained from reports on foreign trade statistics compile by respective national Customs Offices. To prevent errors in collection and grouping during the compilation of the statistics on fisheries commodities, concerned staff should take note that such reports on foreign trade statistics cover not only fishery commodities but also all kinds of other commodities, and that the classification system used is based on the Brussels Tariff Nomenclature, which is different from that of the ISSFC.

## II. REPORTING OF STATISTICS ON FISH EXPORTS AND IMPORTS

### 1) Exports by commodities

#### 1.1 In quantity (tonnes)

Commodity	Total	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
<i>(List based on agreed commodities)</i>											

#### 1.2 In value (USD 1,000)

Commodity	Total	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
<i>(List based on agreed commodities)</i>											

### 2) Exports of [selected] ten major commodities by countries of destination (USD 1,000)

Alt 1. (Selecting the ten major commodities should be based on regional perspective, e.g. frozen shrimps, ...)

Country/Areas of Destination	Total	Country of Origin									
		Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
<i>Japan</i>			...			...				...	...
<i>US</i>		...			...				...	...	...

**Alt 2. (Each AMS)**

Country/ Areas of Destination	Total	Major commodities (max =10)											
		Tuna fresh	Tuna frozen	Tuna can	Catfish frozen	Shrimp frozen	fingerlings						

**3) Imports by commodities**

**3.1 In quantity (tonnes)**

Commodity	Total	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
<i>(List based on agreed commodities)</i>											

**3.2 In value (USD 1,000)**

Commodity	Total	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
<i>(List based on agreed commodities)</i>											

**4) Imports of [selected] ten major commodities by countries of origin (USD 1,000)**

**Alt 1** (Selecting the ten major commodities should be based on regional perspective)

Country/ Areas of Origin	Total	Country of Destination									
		Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
U.S.											
Japan											
Thailand											
...											

**Alt 2** (Each AMS)

Country/Areas of Origin	Total	Major commodities (max =10)											
		Salmon fresh	Salmon frozen	Tuna fresh	Tuna frozen	fingerlings	Fish oils						



**REQUIRED CONSIDERATION BY THE RTC:**

- To consider and provide comment on proposed addendum to the Regional Framework
- To consider appropriate classification on Group of Commodities for fish trade
- To consider the proposed Reporting of Statistics on Fish Trade, *e.g.*:
  - Table 2 – Alt 1 or/and Alt 2
  - Table 4 – Alt 1 or/and Alt 2
- To take note on future questionnaire:
  - For Table 1 and Table 3, SEAFDEC propose to streamline reporting system by requesting FAO to share with SEAFDEC the data submitted from AMSs for “Questionnaire on Export and Import by commodities of FAO” – In the Statistics Bulletin, the data would be categorized/summarized by SEAFDEC to follow the agreed “Group of Commodities”
  - For Table 2 and Table 4 (Alt 1 or/and Alt 2), new sets of questionnaire would be developed by SEAFDEC to request additional data from AMSs in the future.



## LIST OF FISHERY COMMODITIES FOR EXPORT STATISTICS (TOP 15 COMMODITIES)

Division	Group	ISSCFC Code	HS Code	Commodities	BR	KH	ID	LA	MY	MM	PH	SG	TH	VN	
1. Live fish (034.1.1)	11. Ornamental fish	034.1.1.1.19	0301.19	Ornamental fish <i>nei</i>			YES	NA	YES	YES	YES			YES	
		034.1.1.2.90	0301.99	Fish for culture incl. fingerlings			YES		YES						
	12. Other live fishes	034.1.2.1.20	0301.92	Eels			YES		YES		YES				
		034.1.2.1.10	0301.93	Carps			YES								
		034.1.2.1.90	0301.99	Others	YES		YES			YES	YES			YES	
2. Fish, fresh or chilled excluding fillets and other fish meat (034.1)	21. Freshwater fishes	034.1.3.1	0302.73	Carps, barbells and other cyprinids			YES	NA	YES				YES		
		034.1.3.2	0302.71	Tilapias and other cichlids			YES		YES				YES	YES	
		034.1.3.9.30	0302.72	Catfishes			YES		YES					YES	YES
		034.1.3.9.90	0302.89	Freshwater fishes <i>nei</i>			YES		YES						
	22. Diadromous fishes	034.1.4.3	0302.19	Salmons, trouts, smelts	YES		YES								
		034.1.4.5.10	0302.89	Milkfish			YES								
		034.1.4.5.20	0302.89	Barramundi			YES								
	23. Marine fishes	034.1.5.1	0302.29	Flounders, halibuts, soles			YES		YES						YES
		034.1.5.5	0302.89	Herrings, sardines, anchovies			YES		YES						
		034.1.5.6	0302.89	Tunas, bonitos, billfishes	YES		YES		YES			YES			
		034.1.5.7.69	0302.44	Mackerels <i>nei</i>	YES		YES		YES						
		034.1.5.8	0302.89	Sharks, rays, chimaeras			YES								
		034.1.5.8.90	0302.89	Marine fish <i>nei</i>			YES		YES		YES		YES		
3. Fish, frozen excluding fish fillets and other fish meat (034.2)	31. Freshwater fishes	034.2.3.1	0303.89	Carps, barbells and other cyprinids			YES	NA							
		034.2.3.2	0303.23	Tilapias and other cichlids			YES		YES					YES	
		034.2.3.9.30	0303.24	Catfishes			YES		YES						YES
		034.2.3.9.90	0303.89	Freshwater fishes <i>nei</i>	YES		YES		YES						
	32. Diadromous fishes	034.2.4.3	0303.19	Salmon and trouts	YES		YES		YES						
		034.2.4.5.10	0303.89	Milkfish			YES								
		034.2.4.5.20	0303.89	Barramundi			YES								
	33. Marine fishes	034.2.5.1	0303.89	Flounders, halibuts, soles			YES								
		034.2.5.5	0303.89	Herrings, sardines, anchovies			YES		YES						
		034.2.5.6	0303.89	Tunas, bonitos, billfishes	YES		YES		YES			YES			
		034.2.5.7.69	0303.54	Mackerels <i>nei</i>	YES		YES		YES						
		034.2.5.8	0303.81	Sharks, rays, chimaeras			YES								
		034.2.5.9.90	0303.89	Marine fish <i>nei</i>	YES		YES		YES		YES		YES		
	41. Freshwater fishes	034.3.1.3.1	0304.39	Carps, barbells and other cyprinids			YES	NA	YES						

Division	Group	ISSCFC Code	HS Code	Commodities	BR	KH	ID	LA	MY	MM	PH	SG	TH	VN	
4. Fish fillets and meats, fresh or chilled (034.3)		034.3.1.3.2	0304.31	Tilapias and other cichlids			YES		YES					YES	
		034.3.1.3.9.30	0304.32	Catfishes			YES		YES					YES	
		034.3.1.3.9.90	0304.49	Freshwater fishes <i>nei</i>			YES								
	42. Diadromous fish	43. Marine fishes	034.1.4.3	0304.49	Salmon, trouts, smelts			YES							
			034.3.1.5.1	0304.43	Flounders, halibuts, soles										
			034.3.1.5.5	0304.49	Herrings, sardines, anchovies			YES							
			034.3.1.5.6	0304.49	Tunas, bonitos, billfishes			YES				YES			
			034.3.1.5.8	0304.49	Sharks, rays, chimaeras			YES							
034.3.1.5.9.90			0304.49	Marine fish <i>nei</i>			YES				YES				
5. Fish fillets and meat, frozen (034.4)	51. Freshwater fishes	034.4.1.3.2	0304.89	Tilapias and other cichlids			YES	NA						YES	
		034.4.1.3.9.30	0304.62	Catfishes			YES							YES	
		034.4.1.3.9.90	0304.89	Freshwater fishes <i>nei</i>			YES						YES		
	52. Diadromous fish	53. Marine fishes	034.4.1.4.3	0304.89	Salmon, trouts, smelts			YES							
			034.4.1.5.1	0304.83	Flounders, halibuts, soles			YES							
			034.4.1.5.5	0304.89	Herrings, sardines, anchovies			YES							
			034.4.1.5.6	0304.89	Tunas, bonitos, billfishes			YES							
			034.4.1.5.7.69	0304.89	Mackerels <i>nei</i>			YES							
034.4.1.5.8			0304.88	Sharks, rays, chimaeras			YES								
034.4.1.5.9.90			0304.89	Marine fish <i>nei</i>			YES		YES						
6. Fish, dried, salted or in brine; smoked fish (035)	61. Freshwater fish dried whether or not salted, not smoked	035.02.1.3	0305.59				YES	NA							
		035.02.1.4	0305.59				YES								
	63. Marine fishes dried whether or not salted, not smoked	64. Freshwater fish salted and in brine	035.02.1.5.1	0305.59	Flounders, halibuts, soles			YES							
			035.02.1.5.5	0305.59	Herrings, sardines, anchovies			YES		YES					
			035.02.1.5.6	0305.59	Tunas, bonitos, billfishes			YES							
			035.02.1.5.7.69	0305.54	Mackerels <i>nei</i>			YES		YES					
			035.02.1.5.8	0305.59	Sharks, rays, chimaeras			YES							
			035.02.1.5.9.90	0305.59	Marine fish <i>nei</i>			YES		YES		YES		YES	

Division	Group	ISSCF Code	HS Code	Commodities	BR	KH	ID	LA	MY	MM	PH	SG	TH	VN	
	65. Diadromous fish salted and in brine	035.02.2.4	0305.69				YES								
	66. Marine fish salted and in brine	035.02.2.5.1	0305.69	Flounders, halibuts, soles			YES								
		035.02.2.5.5	0305.69	Herrings, sardines, anchovies			YES								
		035.02.2.5.6	0305.69	Tunas, bonitos, billfishes			YES								
		035.02.2.5.7.69	0305.69	Mackerels <i>nei</i>			YES					YES			
		035.02.2.5.8	0305.69	Sharks, rays, chimaeras			YES								
	035.02.2.5.9.95	0305.69	Marine fish <i>nei</i>			YES			YES						
	67. Freshwater fish, smoked	035.03.3	0305.49				YES								
	68. Diadromous fish, smoked	035.03.4	0305.49				YES								
	69. Marine fish, smoked	035.03.5.1	0305.49	Flounders, halibuts, soles			YES								
		035.03.5.5	0305.49	Herrings, sardines, anchovies			YES					YES			
		035.03.5.6	0305.49	Tunas, bonitos, billfishes			YES								
		035.03.5.7.69	0305.49	Mackerels <i>nei</i>			YES								
		035.03.5.8	0305.49	Sharks, rays, chimaeras			YES								
	035.03.5.9.95	0305.49	Marine fish <i>nei</i>			YES					YES				
	7. Crustaceans live, fresh, chilled, frozen, salted, in brine or dried, smoked (036)	71. Crustaceans live, fresh or chilled	036.0.1.3.1.50	0306.36	Freshwater shrimps and prawns			YES	NA						
036.0.1.3.2			0306.33	Crabs			YES		YES						
036.0.1.3.3			0306.31	Lobsters, spiny-rock lobsters, etc			YES		YES						
036.0.1.3.5			0306.36	Shrimps, prawns, etc.			YES		YES				YES		
72. Crustaceans frozen		036.0.1.4.1.50	0306.17	Freshwater shrimps and prawns			YES		YES						
		036.0.1.4.2	0306.14	Crabs and crab meat	YES		YES		YES					YES	
		036.0.1.4.3	0306.11	Lobsters, lobster meat			YES		YES						
	036.0.1.4.5	0306.17	Shrimps, prawns, etc.	YES		YES		YES					YES		
73. Crustaceans, dried, salted or in brine, smoked	036.0.1.5	0306.99				YES									
8. Molluscs live, fresh, chilled, frozen, salted, in brine or dried, smoked (036.0.2)	81. Molluscs live, fresh or chilled	036.0.2.3.3	0307.11	Oysters			YES	NA	YES						
		036.0.2.3.4	0307.31	Mussels			YES								
		036.0.2.3.7.40	0307.42	Cuttlefishes and squids			YES						YES		
		036.0.2.3.9.91	0307.91	Molluscs <i>nei</i>			YES		YES						
	82. Molluscs frozen	036.0.2.4.2.10	0307.83	Abalone			YES		YES						
		036.0.2.4.3	0307.12	Oyster			YES		YES						
	036.0.2.4.4	0307.32	Mussels	YES		YES		YES							

Division	Group	ISSCFC Code	HS Code	Commodities	BR	KH	ID	LA	MY	MM	PH	SG	TH	VN	
	83. Molluscs, dried, salted or in brine, smoked	036.0.2.4.7.40	0307.43	Cuttlefishes and squids	YES		YES		YES				YES		
		036.0.2.4.9.91	0307.92	Molluscs <i>nei</i>			YES		YES						
		036.0.2.5.2.10	0307.87	Abalone			YES		YES						
		036.0.2.5.3	0307.19	Oysters											
		036.0.2.5.4	0307.39	Mussels											
		036.0.2.5.7.40	0307.49	Cuttlefishes and squids			YES		YES						
9. Fish, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved (037)	91. Fish prepared or preserved	037.1.1.6.94	1604.19	Fish not minced, prepare or preserve in airtight containers			YES	NA	YES				YES		
		037.1.1.6.95	1604.19	Fish not minced, prepare or preserve not in airtight containers			YES	NA	YES				YES		
	92. Crustaceans, mollusks, and other aquatic invertebrates prepared or preserved	-	-	Crustacean and mollusc preparations in airtight containers			YES								
		037.2.3.9.91	1605.40	Crustacean and mollusc preparations, not in airtight containers					YES						
10. Meals, solubles and similar animal feedingstuffs, of aquatic animal origin (081)		081	2301.20				YES	NA	YES				YES		
11. Aquatic animals, oils and facts (411)		411	1504.10				YES								
12. Seaweeds and aquatic plants products thereof		292.9.1	1212.29		YES		YES								

List of Fishery Commodities for Import Statistics (top 15 commodities)

Division	Group	ISSCFC Code	HS Code	Commodities	BR	KH	ID	LA	MY	MM	PH	SG	TH	VN	
1. Live fish (034.1.1)	11. Ornamental fish	034.1.1.1.19	0301.19	Ornamental fish <i>nei</i>			YES	YES	YES	YES					
		034.1.1.2.90	0301.99	Fish for culture incl. fingerlings			YES	YES	YES				YES		
	12. Other live fishes	034.1.2.1.20	0301.92	Eels			YES		YES						
		034.1.2.1.10	0301.93	Carps				YES	YES						
2. Fish, fresh or chilled excluding fillets and other fish meat (034.1)	21. Freshwater fishes	034.1.3.1	0302.73	Carps, barbells and other cyprinids			YES	YES	YES						
		034.1.3.2	0302.71	Tilapias and other cichlids					YES						
		034.1.3.9.30	0302.72	Catfishes					YES						
		034.1.3.9.90	0302.89	Freshwater fishes <i>nei</i>			YES		YES						
	22. Diadromous fishes	034.1.4.3	0302.19	Salmons, trouts, smelts	YES			NA	YES						
		034.1.4.5.10	0302.89	Milkfish	YES		YES		YES						
		034.1.4.5.20	0302.89	Barramundi			YES		YES						
	23. Marine fishes	034.1.5.1	0302.29	Flounders, halibuts, soles			YES	NA	YES						
		034.1.5.5	0302.89	Herrings, sardines, anchovies			YES		YES						
		034.1.5.6	0302.89	Tunas, bonitos, billfishes			YES		YES						
		034.1.5.7.69	0302.44	Mackerels <i>nei</i>	YES		YES		YES						
		034.1.5.8	0302.89	Sharks, rays, chimaeras			YES		YES						
	3. Fish, frozen excluding fish fillets and other fish meat (034.2)	31. Freshwater fishes	034.2.3.1	0303.89	Carps, barbells and other cyprinids			YES		YES					
034.2.3.2			0303.23	Tilapias and other cichlids					YES						
034.2.3.9.30			0303.24	Catfishes	YES		YES		YES						
034.2.3.9.90			0303.89	Freshwater fishes <i>nei</i>	YES		YES		YES						
32. Diadromous fishes		034.2.4.3	0303.19	Salmon and trouts	YES		YES	YES	YES			YES			
		034.2.4.5.10	0303.89	Milkfish			YES	YES							
		034.2.4.5.20	0303.89	Barramundi			YES	YES							
33. Marine fishes		034.2.5.1	0303.89	Flounders, halibuts, soles			YES	YES	YES						
		034.2.5.5	0303.89	Herrings, sardines, anchovies			YES		YES			YES			
		034.2.5.6	0303.89	Tunas, bonitos, billfishes			YES	YES	YES			YES			
		034.2.5.7.69	0303.54	Mackerels <i>nei</i>	YES		YES		YES			YES		YES	
		034.2.5.8	0303.81	Sharks, rays, chimaeras			YES		YES						
4. Fish fillets and meats, fresh or chilled	41. Freshwater fishes	034.3.1.3.1	0304.39	Carps, barbells and other cyprinids			YES	NA	YES						
		034.3.1.3.2	0304.31	Tilapias and other cichlids					YES						

Division	Group	ISSCFC Code	HS Code	Commodities	BR	KH	ID	LA	MY	MM	PH	SG	TH	VN	
(034.3)		034.3.1.3.9.30	0304.32	Catfishes					YES		YES				
		034.3.1.3.9.90	0304.49	Freshwater fishes <i>nei</i>			YES		YES						
	42. Diadromous fish	034.1.4.3	0304.49	Salmon, trouts, smelts			YES	YES	YES		YES				
	43. Marine fishes	034.3.1.5.1	0304.43	Flounders, halibuts, soles				YES	YES						
		034.3.1.5.5	0304.49	Herrings, sardines, anchovies			YES	YES				YES			
		034.3.1.5.6	0304.49	Tunas, bonitos, billfishes			YES	YES				YES			
		034.3.1.5.8	0304.49	Sharks, rays, chimaeras			YES								
	034.3.1.5.9.90	0304.49	Marine fish <i>nei</i>			YES	YES	YES			YES				
5. Fish fillets and meat, frozen (034.4)	51. Freshwater fishes	034.4.1.3.2	0304.89	Tilapias and other cichlids			YES								
		034.4.1.3.9.30	0304.62	Catfishes									YES		
		034.4.1.3.9.90	0304.89	Freshwater fishes <i>nei</i>			YES		YES						
	52. Diadromous fish	034.4.1.4.3	0304.89	Salmon, trouts, smelts			YES								
		034.4.1.5.1	0304.83	Flounders, halibuts, soles			YES	YES	YES						
	53. Marine fishes	034.4.1.5.5	0304.89	Herrings, sardines, anchovies			YES	YES							
		034.4.1.5.6	0304.89	Tunas, bonitos, billfishes			YES	YES							
		034.4.1.5.7.69	0304.89	Mackerels <i>nei</i>			YES	YES							
034.4.1.5.8		0304.88	Sharks, rays, chimaeras												
034.4.1.5.9.90		0304.89	Marine fish <i>nei</i>			YES	YES								
6. Fish, dried, salted or in brine; smoked fish (035)	61. Freshwater fish dried whether or not salted, not smoked	035.02.1.3	0305.59				YES								
		035.02.1.4	0305.59				YES								
	63. Marine fishes dried whether or not salted, not smoked	035.02.1.5.1	0305.59	Flounders, halibuts, soles			YES	YES							
		035.02.1.5.5	0305.59	Herrings, sardines, anchovies			YES	YES							
		035.02.1.5.6	0305.59	Tunas, bonitos, billfishes			YES	YES							
		035.02.1.5.7.69	0305.54	Mackerels <i>nei</i>				YES							
		035.02.1.5.8	0305.59	Sharks, rays, chimaeras			YES								
		035.02.1.5.9.90	0305.59	Marine fish <i>nei</i>			YES	YES	YES						
	64. Freshwater fish salted and in brine	035.02.2.3	0305.69												
	65. Diadromous fish salted and in brine	035.02.2.4	0305.69												



Division	Group	ISSCFC Code	HS Code	Commodities	BR	KH	ID	LA	MY	MM	PH	SG	TH	VN	
	66. Marine fish salted and in brine	035.02.2.5.1	0305.69	Flounders, halibuts, soles											
		035.02.2.5.5	0305.69	Herrings, sardines, anchovies											
		035.02.2.5.6	0305.69	Tunas, bonitos, billfishes				YES							
		035.02.2.5.7.69	0305.69	Mackerels <i>nei</i>											
		035.02.2.5.8	0305.69	Sharks, rays, chimaeras											
		035.02.2.5.9.95	0305.69	Marine fish <i>nei</i>						YES					
	67. Freshwater fish, smoked	035.03.3	0305.49				YES								
	68. Diadromous fish, smoked	035.03.4	0305.49				YES								
	69. Marine fish, smoked	035.03.5.1	0305.49	Flounders, halibuts, soles			YES								
		035.03.5.5	0305.49	Herrings, sardines, anchovies			YES								
		035.03.5.6	0305.49	Tunas, bonitos, billfishes			YES	YES							
		035.03.5.7.69	0305.49	Mackerels <i>nei</i>			YES								
		035.03.5.8	0305.49	Sharks, rays, chimaeras			YES								
		035.03.5.9.95	0305.49	Marine fish <i>nei</i>			YES		YES						
	7. Crustaceans live, fresh, chilled, frozen, salted, in brine or dried, smoked (036)	71. Crustaceans live, fresh or chilled	036.0.1.3.1.50	0306.36	Freshwater shrimps and prawns	YES		YES		YES					
036.0.1.3.2			0306.33	Crabs	YES		YES	YES	YES				YES		
036.0.1.3.3			0306.31	Lobsters, spiny-rock lobsters, etc				YES							
036.0.1.3.5			0306.36	Shrimps, prawns, etc.	YES		YES	YES	YES					YES	
72. Crustaceans frozen		036.0.1.4.1.50	0306.17	Freshwater shrimps and prawns			YES	YES	YES						
		036.0.1.4.2	0306.14	Crabs and crab meat			YES	YES	YES					YES	
		036.0.1.4.3	0306.11	Lobsters, lobster meat				YES	YES						
		036.0.1.4.5	0306.17	Shrimps, prawns, etc.	YES		YES	YES	YES					YES	
73. Crustaceans, dried, salted or in brine, smoked		036.0.1.5	0306.99				YES		YES						
8. Molluscs live, fresh, chilled, frozen, salted, in brine or dried, smoked (036.0.2)		81. Molluscs live, fresh or chilled	036.0.2.3.3	0307.11	Oysters			YES	YES	YES					
	036.0.2.3.4		0307.31	Mussels				YES	YES						
	036.0.2.3.7.40		0307.42	Cuttlefishes and squids	YES		YES	YES	YES				YES		
	036.0.2.3.9.91		0307.91	Molluscs <i>nei</i>			YES	YES	YES						
	82. Molluscs frozen	036.0.2.4.2.10	0307.83	Abalone			YES	NA	YES						
		036.0.2.4.3	0307.12	Oyster			YES	YES	YES						
		036.0.2.4.4	0307.32	Mussels			YES	YES	YES					YES	
		036.0.2.4.7.40	0307.43	Cuttlefishes and squids	YES		YES	YES	YES					YES	
		036.0.2.4.9.91	0307.92	Molluscs <i>nei</i>			YES	YES	YES					YES	
	036.0.2.5.2.10	0307.87	Abalone				NA	YES							

Division	Group	ISSCFC Code	HS Code	Commodities	BR	KH	ID	LA	MY	MM	PH	SG	TH	VN	
	83. Molluscs, dried, salted or in brine, smoked	036.0.2.5.3	0307.19	Oysters				YES	YES						
		036.0.2.5.4	0307.39	Mussels			YES	YES	YES						
		036.0.2.5.7.40	0307.49	Cuttlefishes and squids			YES	YES	YES					YES	
		036.0.2.5.9.91	0307.99	Molluscs <i>nei</i>			YES	YES	YES						
9. Fish, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved (037)	91. Fish prepared or preserved	037.1.1.6.94	1604.19	Fish not minced, prepare or preserve in airtight containers			YES	NA	YES						
		037.1.1.6.95	1604.19	Fish not minced, prepare or preserve not in airtight containers			YES	NA	YES						
	92. Crustaceans, mollusks, and other aquatic invertebrates prepared or preserved	-	-	Crustacean and mollusc preparations in airtight containers				NA							
		037.2.3.9.91	1605.40	Crustacean and mollusc preparations, not in airtight containers				NA	YES						
10. Meals, solubles and similar animal feedingstuffs, of aquatic animal origin (081)		081	2301.20										YES		
11. Aquatic animals, oils and facts (411)		411	1504.10												
12. Seaweeds and aquatic plants products thereof		292.9.1	1212.29				YES								

## REGIONAL COMPILATION OF FISH TRADE STATISTICS

(As agreed at the 1<sup>st</sup> RTC in 2021)

### I. ADDENDUM TO THE “REGIONAL FRAMEWORK”

#### 3.3.5 Statistics on Exports and Imports of Fishery Commodities

##### a. Coverage and Classification

The statistics cover the quantities and values of annual exports and imports of all fishery commodities ranging from live fish to preserved and processed commodities. In accordance with the internationally recommended practice, export statistics include exports of aquatic animals and plants caught (or collected) by domestic fishing vessels, whether or not processed onboard, landed in foreign ports; while import statistics include imports of aquatic animals and plants caught (or collected) by foreign fishing vessels, whether or not processed onboard, landed in domestic ports.

The statistics classification of fish trade should be based on twelve (12) Divisions of the “FAO International Standard Statistical Classification of Fishery Commodities (ISSCFC)” as follows:

- 1) Live fish
- 2) Fish, fresh or chilled excluding fillets and other fish meat
- 3) Fish, frozen excluding fish fillets and other fish meat
- 4) Fish fillets and meats, fresh or chilled
- 5) Fish fillets and meat, frozen
- 6) Fish, dried, salted or in brine; smoked fish
- 7) Crustaceans live, fresh, chilled, frozen, salted, in brine or dried, smoked
- 8) Molluscs live, fresh, chilled, frozen, salted, in brine or dried, smoked
- 9) Fish, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved
- 10) Meals, solubles and similar animal feed stuffs, of aquatic animal origin
- 11) Aquatic animals, oils and fats
- 12) Seaweeds and aquatic plants products thereof

The statistics based on the “Divisions” should be classified further based on their respective “Groups” with reference to the “Harmonized Commodity Description and Coding System (HS)” of the World Customs Organization, attached as **Appendix 1**.

##### b. Exports of Fishery Commodities

###### b.1 Unit of Measurement

###### 1) *Exports by commodities*

Statistics on exports by commodities is expressed in volume (tonnes) and value (USD 1,000).

###### 2) *Exports to major countries of destination and by major commodities (USD 1,000)*

Statistics on exports to major countries of destination and by major commodities is expressed in value (USD 1,000).

###### b.2 Statistics on Exports of Fishery Commodities

###### 1) *Exports by commodities*

The statistics on exports by commodities (at Division and Group levels based on the ISSCFC) is recorded by summing up the total annual exports of each fishery commodity.



**2) Exports to major countries of destination and by major commodities (USD 1,000)**

Statistics on exports to major countries of destination and by major commodities is generally recorded by summing up the value of annual exports to major countries of destination (maximum 20 countries), and is then broken down by major commodities (maximum 10 commodities). The total export of each major commodity is also recorded.

In reporting the statistics on exports by major commodities, each country can choose the appropriate commodities or commodity groups, *e.g.* based on 6-digit HS code, or others as applicable and appropriate.

**c. Imports of Fishery Commodities**

**b.1 Unit of Measurement**

**1) Imports by commodities**

Statistics on imports by commodities is expressed in volume (tonnes) and value (USD 1,000).

**2) Imports from major countries of origin and by major commodities (USD 1,000)**

Statistics on imports from major countries of origin and by major commodities is expressed in value (USD 1,000).

**b.2 Statistics on Imports of Fishery Commodities**

**1) Imports by commodities**

The statistics on imports by commodities (at Division and Group levels based on the ISSCFC) is recorded by summing up the total annual imports of each fishery commodity.

**2) Imports from major countries of origin and by major commodities (USD 1,000)**

Statistics on imports from major countries of origin and by major commodities is generally recorded by summing up the value of annual imports from major countries of origin (maximum 20 countries), and is then broken down by major commodities (maximum 10 commodities). The total import of each major commodity is also recorded.

In reporting the statistics on imports by major commodities, each country can choose the appropriate commodities or commodity groups, *e.g.* based on 6-digit HS code, or others as applicable and appropriate.

**1.1 Data Source**

The export and import statistics are generally obtained from reports on foreign trade statistics compiled by respective national Customs Offices. To prevent errors in the collection and grouping during the compilation of the statistics on fishery commodities, concerned staff should take note that the reports on foreign trade statistics cover not only the fishery commodities but also all kinds of other commodities, and that the classification system used is based on the Brussels Tariff Nomenclature, which is different from that of the ISSCFC.

## II. REPORTING OF STATISTICS ON FISH EXPORTS AND IMPORTS

### 1) Exports by commodities

#### 1.1 In quantity (tonnes)

Division	Group	Total	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
		<i>(List based on Division and Group in the ISSFC)</i>										

#### 1.2 In value (USD 1,000)

Division	Group	Total	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
		<i>(List based on Division and Group in the ISSFC)</i>										

### 2) Exports to major countries of destination and by major commodities (USD 1,000) (One table for each AMS)

Country/ Area of Destination (max = 20)	Total Export to Country/ Area of Destination	Major commodities (max =10)										
Total												

### 3) Imports by commodities

#### 3.1 In quantity (tonnes)

Division	Group	Total	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
		<i>(List based on Division and Group in the ISSFC)</i>										



**3.2 In value (USD 1,000)**

Division	Group	Total	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
<i>(List based on Division and Group in the ISSFC)</i>												

**4) Imports from major countries of origin and by major commodities (USD 1,000)**

(One table of each AMS)

Country/ Area of Origin (max = 20)	Total Imports from Country/ Area of Origin	Major commodities (max =10)										
<b>Total</b>												

## List of Fishery Commodities for Export and Import Statistics

Division	Group	ISSCFC Code	HS Code	Commodities
1. Live fish (034.1.1)	11. Ornamental fish	034.1.1.1.19	0301.19	Ornamental fish <i>nei</i>
		034.1.1.2.90	0301.99	Fish for culture incl. fingerlings
	12. Other live fishes	034.1.2.1.20	0301.92	Eels
		034.1.2.1.10	0301.93	Carps
		034.1.2.1.90	0301.99	Others
2. Fish, fresh or chilled excluding fillets and other fish meat (034.1)	21. Freshwater fishes	034.1.3.1	0302.73	Carps, barbells and other cyprinids
		034.1.3.2	0302.71	Tilapias and other cichlids
		034.1.3.9.30	0302.72	Catfishes
		034.1.3.9.90	0302.89	Freshwater fishes <i>nei</i>
	22. Diadromous fishes	034.1.4.3	0302.19	Salmons, trouts, smelts
		034.1.4.5.10	0302.89	Milkfish
		034.1.4.5.20	0302.89	Barramundi
	23. Marine fishes	034.1.5.1	0302.29	Flounders, halibuts, soles
		034.1.5.5	0302.89	Herrings, sardines, anchovies
		034.1.5.6	0302.89	Tunas, bonitos, billfishes
		034.1.5.7.69	0302.44	Mackerels <i>nei</i>
		034.1.5.8	0302.89	Sharks, rays, chimaeras
034.1.5.8.90		0302.89	Marine fish <i>nei</i>	
3. Fish, frozen excluding fish fillets and other fish meat (034.2)	31. Freshwater fishes	034.2.3.1	0303.89	Carps, barbells and other cyprinids
		034.2.3.2	0303.23	Tilapias and other cichlids
		034.2.3.9.30	0303.24	Catfishes
		034.2.3.9.90	0303.89	Freshwater fishes <i>nei</i>
	32. Diadromous fishes	034.2.4.3	0303.19	Salmon and trouts
		034.2.4.5.10	0303.89	Milkfish
		034.2.4.5.20	0303.89	Barramundi
	33. Marine fishes	034.2.5.1	0303.89	Flounders, halibuts, soles
		034.2.5.5	0303.89	Herrings, sardines, anchovies
		034.2.5.6	0303.89	Tunas, bonitos, billfishes
		034.2.5.7.69	0303.54	Mackerels <i>nei</i>
		034.2.5.8	0303.81	Sharks, rays, chimaeras
		034.2.5.9.90	0303.89	Marine fish <i>nei</i>
4. Fish fillets and meats, fresh or chilled (034.3)	41. Freshwater fishes	034.3.1.3.1	0304.39	Carps, barbells and other cyprinids
		034.3.1.3.2	0304.31	Tilapias and other cichlids
		034.3.1.3.9.30	0304.32	Catfishes
		034.3.1.3.9.90	0304.49	Freshwater fishes <i>nei</i>
	42. Diadromous fish	034.1.4.3	0304.49	Salmon, trouts, smelts
	43. Marine fishes	034.3.1.5.1	0304.43	Flounders, halibuts, soles
		034.3.1.5.5	0304.49	Herrings, sardines, anchovies
		034.3.1.5.6	0304.49	Tunas, bonitos, billfishes
		034.3.1.5.8	0304.49	Sharks, rays, chimaeras
		034.3.1.5.9.90	0304.49	Marine fish <i>nei</i>
5. Fish fillets and meat, frozen (034.4)		51. Freshwater fishes	034.4.1.3.2	0304.89
	034.4.1.3.9.30		0304.62	Catfishes
	034.4.1.3.9.90		0304.89	Freshwater fishes <i>nei</i>
	52. Diadromous fish	034.4.1.4.3	0304.89	Salmon, trouts, smelts
	53. Marine fishes	034.4.1.5.1	0304.83	Flounders, halibuts, soles
		034.4.1.5.5	0304.89	Herrings, sardines, anchovies
		034.4.1.5.6	0304.89	Tunas, bonitos, billfishes
		034.4.1.5.7.69	0304.89	Mackerels <i>nei</i>
		034.4.1.5.8	0304.88	Sharks, rays, chimaeras
		034.4.1.5.9.90	0304.89	Marine fish <i>nei</i>



Division	Group	ISSCFC Code	HS Code	Commodities
6. Fish, dried, salted or in brine; smoked fish (035)	61. Freshwater fish dried whether or not salted, not smoked	035.02.1.3	0305.59	
	62. Diadromous fish dried whether or not salted, not smoked	035.02.1.4	0305.59	
	63. Marine fishes dried whether or not salted, not smoked	035.02.1.5.1	0305.59	Flounders, halibuts, soles
		035.02.1.5.5	0305.59	Herrings, sardines, anchovies
		035.02.1.5.6	0305.59	Tunas, bonitos, billfishes
		035.02.1.5.7.69	0305.54	Mackerels <i>nei</i>
		035.02.1.5.8	0305.59	Sharks, rays, chimaeras
		035.02.1.5.9.90	0305.59	Marine fish <i>nei</i>
	64. Freshwater fish salted and in brine	035.02.2.3	0305.69	
	65. Diadromous fish salted and in brine	035.02.2.4	0305.69	
	66. Marine fish salted and in brine	035.02.2.5.1	0305.69	Flounders, halibuts, soles
		035.02.2.5.5	0305.69	Herrings, sardines, anchovies
		035.02.2.5.6	0305.69	Tunas, bonitos, billfishes
		035.02.2.5.7.69	0305.69	Mackerels <i>nei</i>
		035.02.2.5.8	0305.69	Sharks, rays, chimaeras
		035.02.2.5.9.95	0305.69	Marine fish <i>nei</i>
	67. Freshwater fish, smoked	035.03.3	0305.49	
	68. Diadromous fish, smoked	035.03.4	0305.49	
	69. Marine fish, smoked	035.03.5.1	0305.49	Flounders, halibuts, soles
		035.03.5.5	0305.49	Herrings, sardines, anchovies
035.03.5.6		0305.49	Tunas, bonitos, billfishes	
035.03.5.7.69		0305.49	Mackerels <i>nei</i>	
035.03.5.8		0305.49	Sharks, rays, chimaeras	
	035.03.5.9.95	0305.49	Marine fish <i>nei</i>	
7. Crustaceans live, fresh, chilled, frozen, salted, in brine or dried, smoked (036)	71. Crustaceans live, fresh or chilled	036.0.1.3.1.50	0306.36	Freshwater shrimps and prawns
		036.0.1.3.2	0306.33	Crabs
		036.0.1.3.3	0306.31	Lobsters, spiny-rock lobsters, etc
		036.0.1.3.5	0306.36	Shrimps, prawns, etc.
	72. Crustaceans frozen	036.0.1.4.1.50	0306.17	Freshwater shrimps and prawns
		036.0.1.4.2	0306.14	Crabs and crab meat
		036.0.1.4.3	0306.11	Lobsters, lobster meat
		036.0.1.4.5	0306.17	Shrimps, prawns, etc.
73. Crustaceans, dried, salted or in brine, smoked	036.0.1.5	0306.99		
8. Molluscs live, fresh, chilled, frozen, salted, in brine or dried, smoked (036.0.2)	81. Molluscs live, fresh or chilled	036.0.2.3.3	0307.11	Oysters
		036.0.2.3.4	0307.31	Mussels
		036.0.2.3.7.40	0307.42	Cuttlefishes and squids
		036.0.2.3.9.91	0307.91	Molluscs <i>nei</i>
	82. Molluscs frozen	036.0.2.4.2.10	0307.83	Abalone
		036.0.2.4.3	0307.12	Oyster
		036.0.2.4.4	0307.32	Mussels
		036.0.2.4.7.40	0307.43	Cuttlefishes and squids
		036.0.2.4.9.91	0307.92	Molluscs <i>nei</i>
			036.0.2.5.2.10	0307.87
	036.0.2.5.3	0307.19	Oysters	



<b>Division</b>	<b>Group</b>	<b>ISSCFC Code</b>	<b>HS Code</b>	<b>Commodities</b>
	83. Molluscs, dried, salted or in brine, smoked	036.0.2.5.4	0307.39	Mussels
		036.0.2.5.7.40	0307.49	Cuttlefishes and squids
		036.0.2.5.9.91	0307.99	Molluscs <i>nei</i>
9. Fish, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved (037)	91. Fish prepared or preserved	037.1.1.6.94	1604.19	Fish not minced, prepare or preserve in airtight containers
		037.1.1.6.95	1604.19	Fish not minced, prepare or preserve not in airtight containers
	92. Crustaceans, mollusks, and other aquatic invertebrates prepared or preserved	-	-	Crustacean and mollusc preparations in airtight containers
		037.2.3.9.91	1605.40	Crustacean and mollusc preparations, not in airtight containers
10. Meals, solubles and similar animal feedingstuffs, of aquatic animal origin (081)		081	2301.20	
11. Aquatic animals, oils and fats (411)		411	1504.10	
12. Seaweeds and aquatic plants products thereof		292.9.1	1212.29	



## CLOSING REMARKS

*Mr. Koichi Honda,*  
SEAFDEC Deputy Secretary-General

Representatives from the ASEAN Member States,  
Representative from FAO Headquarter,  
My colleagues from SEAFDEC Secretariat and Departments,  
Ladies and Gentlemen, Good Afternoon!

After two days of discussion and deliberation, we have eventually come to the last session of the Consultation. Several topics and issues have been discussed towards improving the “Regional Framework for Fishery Statistics of Southeast Asia,” and in particular the inclusion of statistics on fish processing and on fish import and export for regional compilation. And finally we have now reached some agreement on how to move forward on these issues, although there are some of the remaining issues that the Secretariat would further coordinate with you ad referendum.

I therefore would like to take this opportunity to express my appreciation to all participants for sharing your views and recommendations during the discussion. I believe that statistics is one of the important bases for policy planning and development of the fisheries sector, and I do hope that our task in improving the Regional Statistics Framework would contribute to improving statistics not only for SEAFDEC at the regional level, but also for your respective countries.

And as the SEAFDEC staff has informed you at the beginning that the work for us is not only for this Consultation, but there will be a series of work to discuss different components of the Regional Statistics Framework, I therefore look forward to close collaboration and cooperation from all countries during this exercise in the near future.

With that, I would like to declare the Regional Technical Consultation closed, and I wish you all stay safe and keep up with good health during the COVID situation.

Thank you very much!