

# Introduction of eco-labeling and lessons learned



**Marine Eco-Label Japan Council (MEL Council)**

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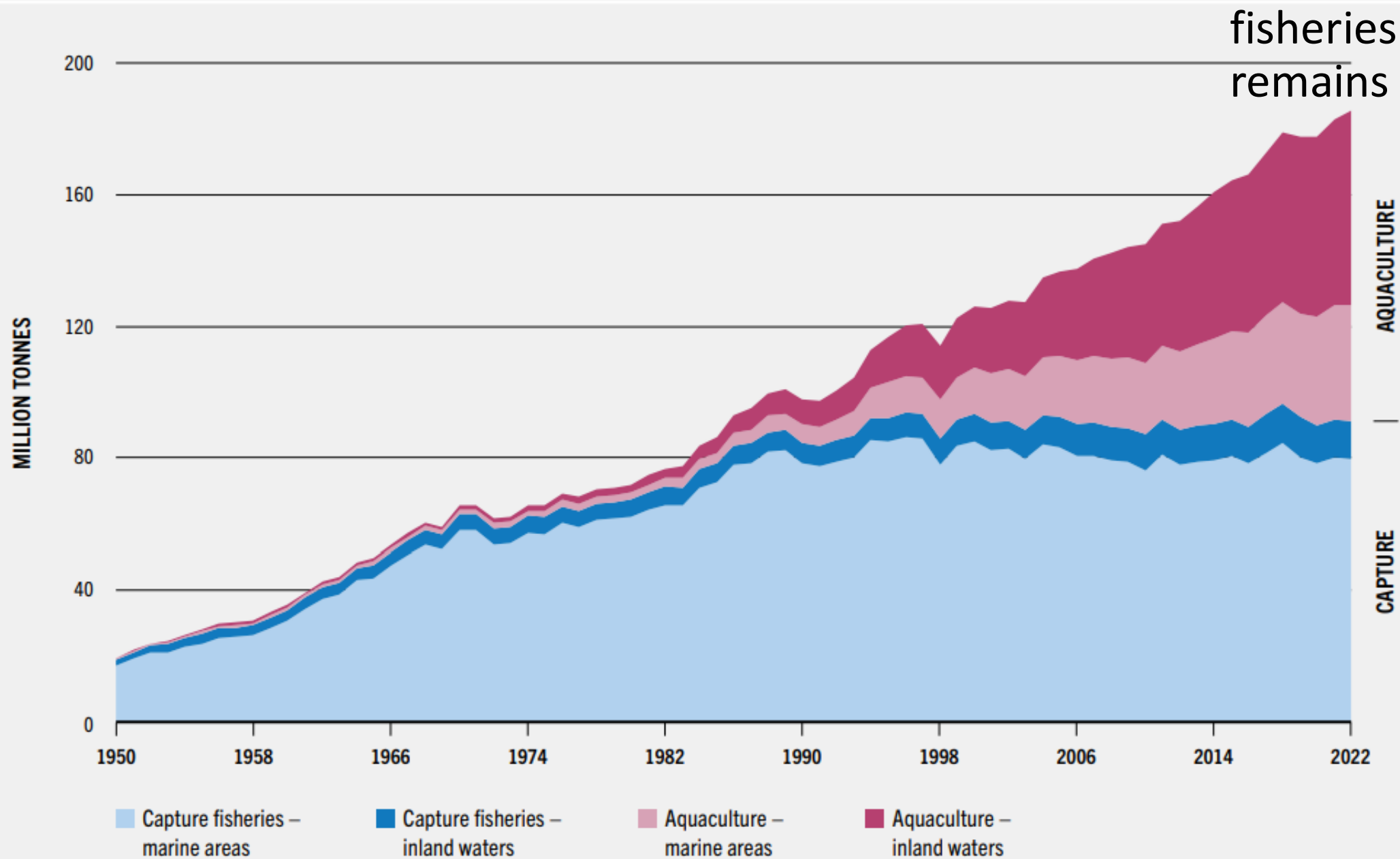
# Today's Topics

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- Global Capture Fisheries and Aquaculture
- the Fisheries and Aquaculture Sector in Japan
- Fisheries Reform and Progress in Japan
- Seafood Expo Global (Barcelona, Spain) in April 2024
- Marine Eco-Label Japan

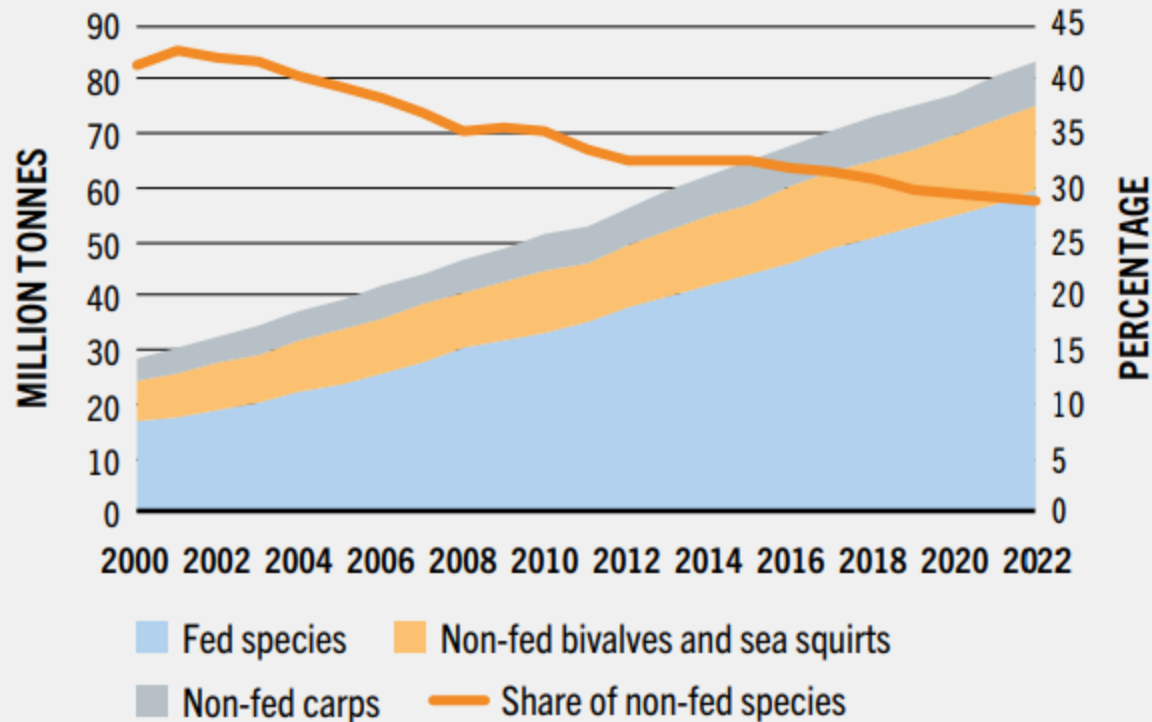
**FIGURE 1** WORLD FISHERIES AND AQUACULTURE PRODUCTION OF AQUATIC ANIMALS

Global capture fisheries production remains stable.



Data from FAO

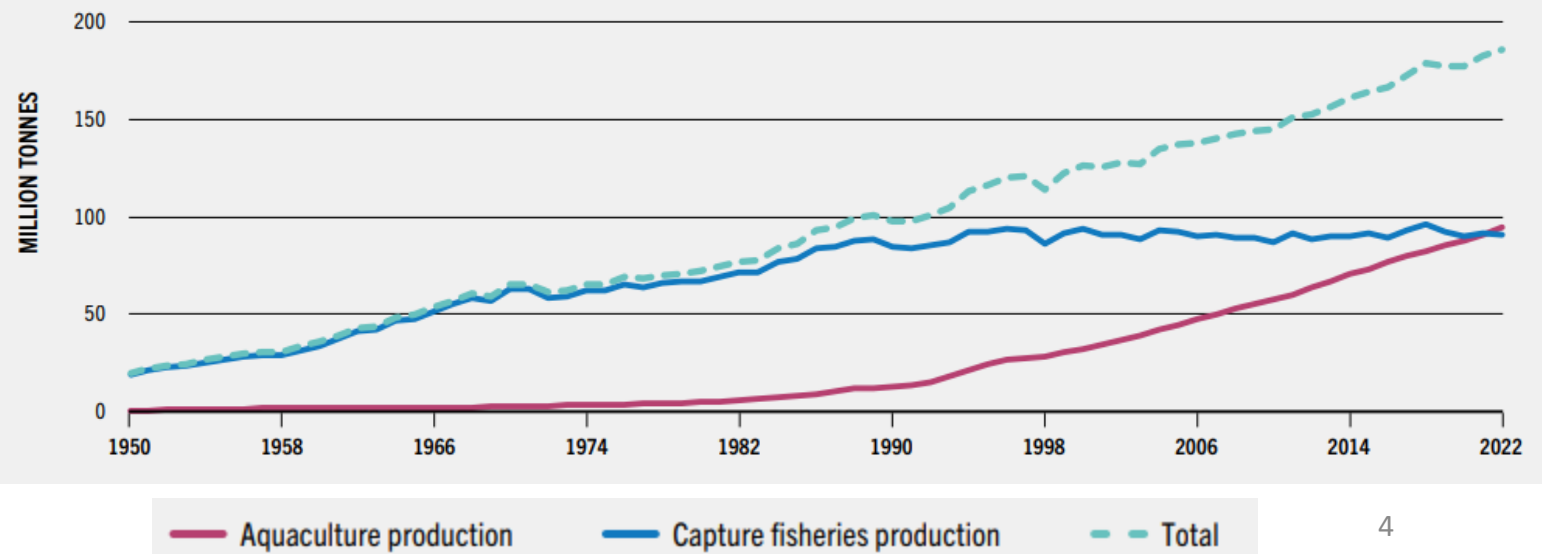
# ASIA



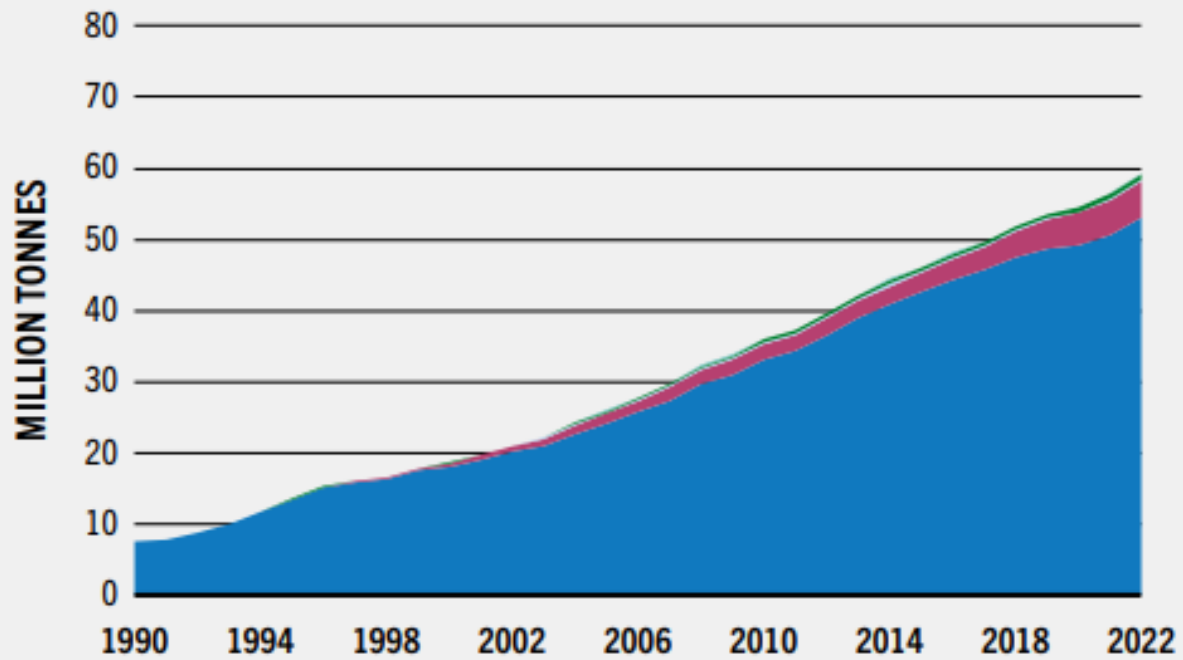
# World Fisheries and Aquaculture Production: Excluding algae

## FISHERIES AND AQUACULTURE PRODUCTION

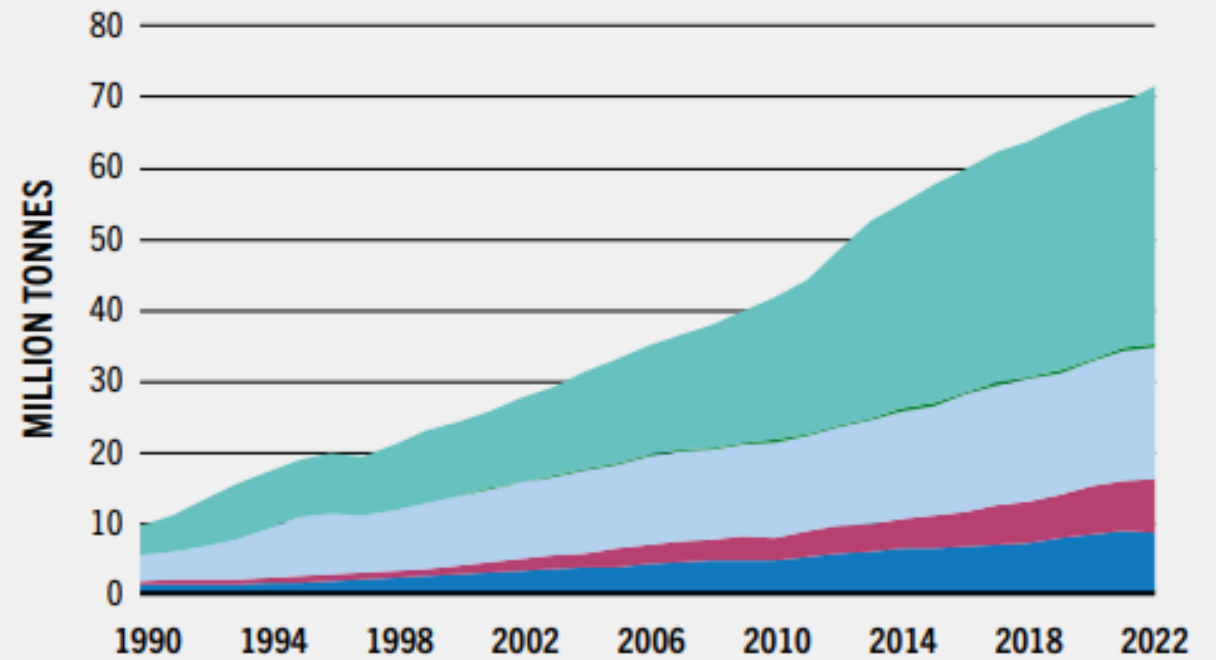
Data from FAO



**WORLD INLAND AQUACULTURE**



**WORLD MARINE AND COASTAL AQUACULTURE**



■ Finfish    ■ Crustaceans    ■ Molluscs    ■ Other aquatic animals    ■ Algae

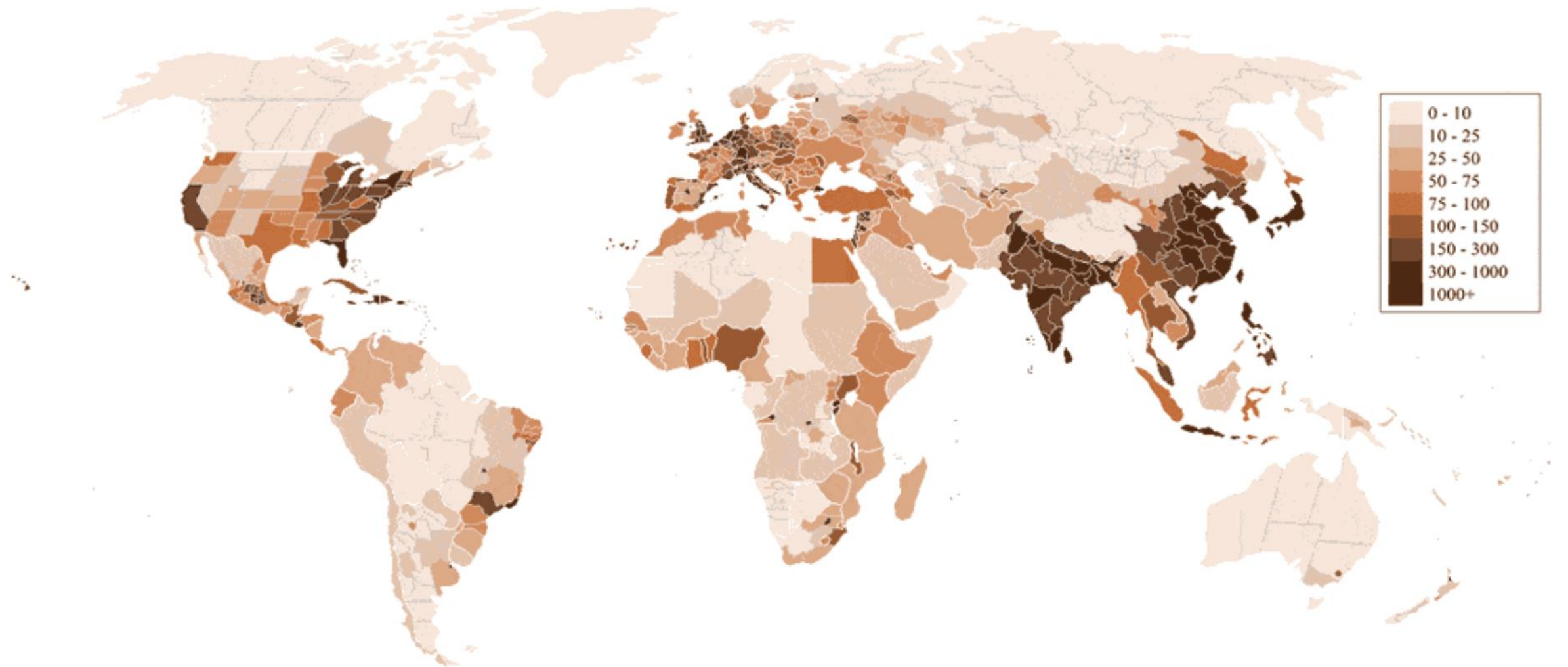
Data from FAO

# World Population by Region

#	Region	Population (2024)	Yearly Change	Net Change	Density (P/Km <sup>2</sup> )	Land Area (Km <sup>2</sup> )	Migrants (net)	Fert. Rate	Med. Age	Urban Pop %	World Share
1	<b>Asia</b>	<b>4,806,898,007</b>	0.6 %	28,893,521	155	31,033,131	-2,335,416	1.9	32	52.9 %	58.9 %
2	<b>Africa</b>	<b>1,515,140,849</b>	2.32 %	34,370,324	51	29,648,481	-644,272	4	19	44.5 %	18.6 %
3	<b>Europe</b>	<b>745,083,824</b>	-0.07 %	-519,051	34	22,134,900	1,566,027	1.4	43	75.6 %	9.1 %
4	<b>Latin America and the Caribbean</b>	<b>663,466,072</b>	0.69 %	4,574,555	33	20,139,378	-382,944	1.8	31	85.2 %	8.1 %
5	<b>Northern America</b>	<b>385,295,105</b>	0.62 %	2,392,363	21	18,651,660	1,654,440	1.6	39	82.2 %	4.7 %
6	<b>Oceania</b>	<b>46,088,716</b>	1.15 %	525,929	5	8,486,460	142,167	2.1	33	66.1 %	0.6 %

Data from Worldometer

# World Population Density (people/km<sup>2</sup>)

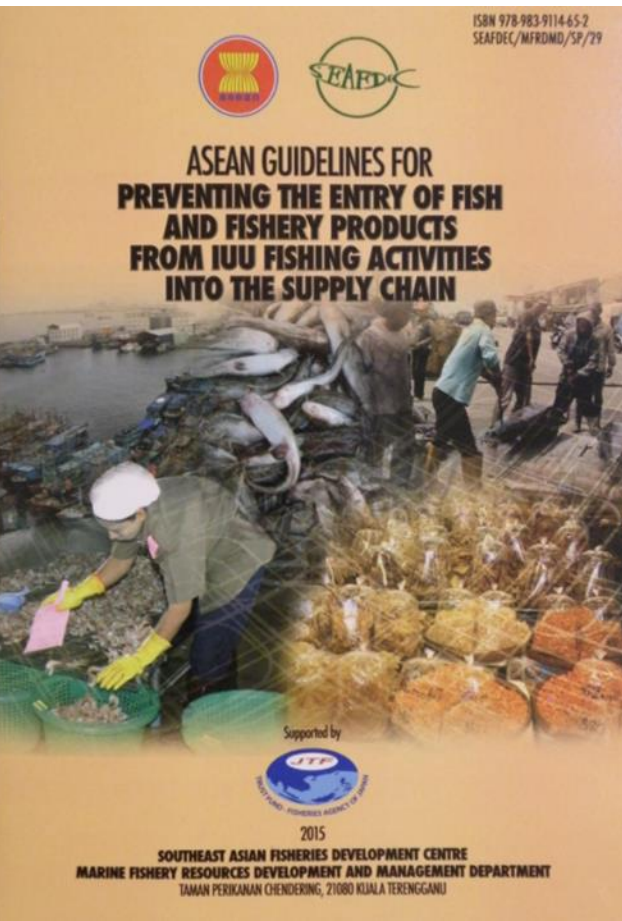


# Combating IUU fishing as a common global challenge

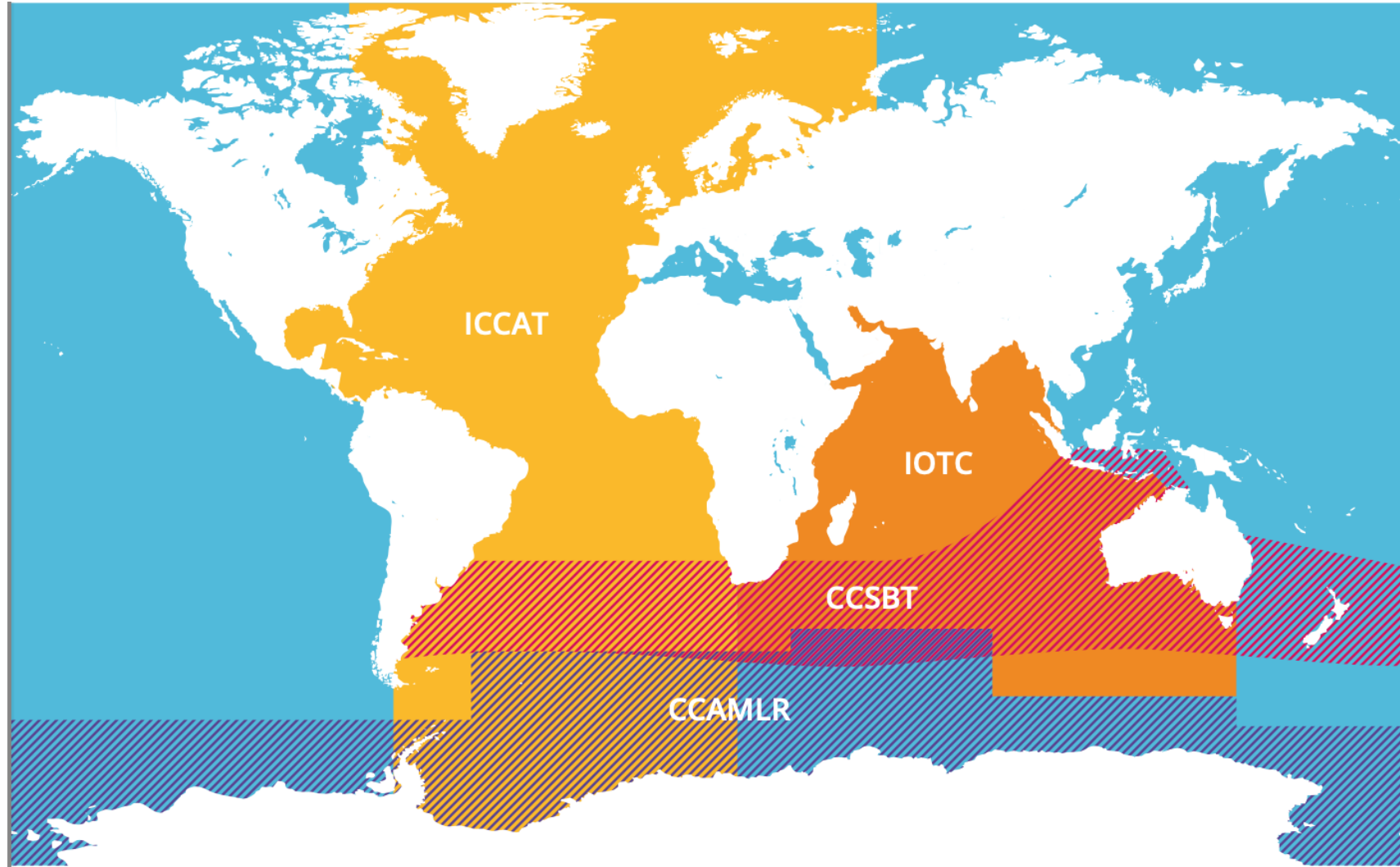
- Illegal, Unreported, Unregulated (IUU) fishing refers to fishing activities that violate national and international laws and regulations.
- IUU fishing is a serious threat to the sustainable use of marine living resources and also a global common challenge mentioned in SDG Target 14.4.
- IUU fishing undermines national and regional efforts to conserve and manage fish stocks and, as a consequence, inhibits progress towards achieving the goals of long-term sustainability and responsibility.



Combating IUU Fishing has been one of the major activities for SEAFDEC since 2010: Publication of ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain was one outcome.



# Traceability (CDSs and KDEs) is a major issue for RFMOs, NGOs and Intergovernmental Organizations



From IOTC (2016)



**Table 4 | CDS key data element requirements**

Recommended or applied in practice    Optional or needs to be improved    Not recommended or required

	Key Data Elements (KDEs)	Stakeholder recommendations for CDS			Current RFMO multilateral CDS practices				Current unilateral CDS practices		Current regional CDS practices
		EU IUU fishing Coalition	FAO Voluntary Guidelines	GDST 1.0 Standard	ICCAT	CCSBT	CCAMLR	IOTC <sup>i</sup>	European Union	United States of America	Association of Southeast Asian Nations
<b>WHO</b>	Vessel name	Green	Yellow (See article 1(b))	Green	Green	Green	Green	Green	Green	Green	Green
	UVI( IMO number)	Green	Yellow (See article 1(b))	Green	Red	Red	Yellow	Red	Yellow	Yellow	Yellow (Only required for carrier vessels, not for fishing vessels)
	Vessel flag	Green	Yellow (See article 1(b))	Green	Green	Green	Green	Green	Green	Green	Red
	International Radio Call Sign( IRCS)	Green	Yellow (See article 1(b))	Yellow	Red	Red	Green	Red	Green	Red	Red
	Information of exporter/re-exporter	Green	Yellow (See article 1(f))	Red	Yellow	Green	Green	Green	Green	Green	Red
	Identity of import company	Green	Yellow (See article 1(g))	Red	Green	Green	Green	Green	Green	Green	Red
<b>WHAT</b>	Product type( use of FAO Alpha code)	Green	Yellow (See article 1(d))	Green	Green	Green	Green	Red	Green	Green	Red
	Species name embedded in the FAO/ASFIS 3-Alpha Code	Green	Yellow (See article 1(b))	Green	Green	Green	Green	Green	Green	Green	Green
	Estimated live weight( kg)	Green	Red	Not specified between live or processed	Red	Red	Red	Yellow	Green	Red	Red
	Processed weight( kg)	Green	Yellow (See article 1(d))	Not specified between live or processed	Yellow	Yellow	Green	Red	Green	Green	Green
	Declaration and authorisation of transshipment at sea	Green	Yellow (See article 1(c))	Green	Green	Yellow	Green	Red	Green	Yellow	Green
<b>WHEN</b>	Event date( Harvesting operation)	Green	Yellow (See article 1(b) <sup>ii</sup> )	Green	Green	Green	Green	Green	Green	Green	Green
<b>WHERE</b>	Catch area	Green	Yellow (See article 1(b))	Green	Red	Red	Green	Red	Red	Green	Green
	Authorisation to fish	Green	Yellow (See article 1(e) <sup>iii</sup> )	Green	Red	Red	Green	Red	Yellow	Red	Red
	Port of landing	Green	Yellow (See article 1(b))	Green	Red	Red	Green	Red	Green	Green	Red
	Processing location	Green	Red	Red	Red	Red	Red	Red	Green	Green	Red
<b>HOW</b>	Fishing methods	Green	Red	Green	Green	Red	Green	Red	Green	Green	Red

# Global Dialogue on Seafood Traceability (GDST)

- A global standard for interoperable traceability, created through seafood Dialogue
- A non-profit foundation based in The Hague (the Netherlands), with a service delivery subsidiary in Singapore
- A community of business & stakeholder partners who support a single traceability standard
- A resource for practical tests, tools & services that support GDST Standard implementation
- A pathway for regulatory compliance, supply chain visibility & sustainability objectification
- A continuing global Dialogue where region constituency voices help to evolve the standard

The IUU Fishing Risk Index provides a measure of the likelihood that states are exposed to and effectively combat IUU fishing.

The Index allows countries to be benchmarked and ranked, and assessed for their vulnerability, prevalence and response to IUU fishing.

The Index has been developed by Poseidon Aquatic Resource Management Ltd., a fisheries and aquaculture consultancy company and the Global Initiative Against Transnational Organized Crime, a Geneva-based NGO network of experts.

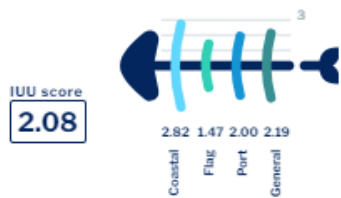
[ABOUT THE INDEX](#) [SCORE MAPS](#) [RANKINGS](#) [COUNTRY PROFILES](#) [REPORT](#) [DATA FILES](#) [CONTACT](#)

<b>#1</b>	– 0	<b>China</b>	<b>3.69</b>	3.86	↘ <b>-0.17</b>	3.93
<b>#2</b>	– 0	<b>Russia</b>	<b>3.20</b>	3.04	↗ <b>0.16</b>	3.16
<b>#3</b>	↑ 2	<b>Yemen</b>	<b>2.99</b>	2.89	↗ <b>0.10</b>	2.96
<b>#4</b>	↑ 48	<b>India</b>	<b>2.97</b>	2.36	↗ <b>0.61</b>	2.68
<b>#5</b>	↑ 6	<b>Iran</b>	<b>2.93</b>	2.68	↗ <b>0.25</b>	2.49
<b>#6</b>	↑ 14	<b>Indonesia</b>	<b>2.89</b>	2.55	↗ <b>0.34</b>	2.70
<b>#7</b>	↓ -1	<b>Taiwan</b>	<b>2.88</b>	2.88	– <b>0.00</b>	3.34
<b>#8</b>	↑ 25	<b>Comoros Isl.</b>	<b>2.81</b>	2.45	↗ <b>0.36</b>	2.61
<b>#9</b>	↓ -6	<b>Korea (Rep. South)</b>	<b>2.76</b>	2.91	↘ <b>-0.15</b>	2.49
<b>#10</b>	↓ -3	<b>Ukraine</b>	<b>2.72</b>	2.75	↘ <b>-0.03</b>	2.53
<b>#11</b>	↑ 4	<b>Mexico</b>	<b>2.70</b>	2.61	↗ <b>0.09</b>	2.71

IUU Index provides an IUU fishing score for all coastal states of between 1 and 5 (1 being the best, and 5 the worst).

## Brunei Darussalam

2023 country results



### IUU score trends

2021 vs 2023  $\downarrow -0.31$



### IUU score ranks

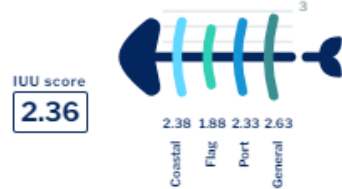
2023 World overall IUU score is 2.28

World ranking	112 of 152 countries $\downarrow -67$
Asla ranking	20 of 20 countries $\downarrow -9$
Western Pacific ranking	25 of 29 countries $\downarrow -13$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.

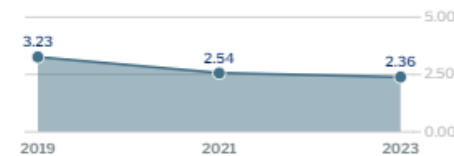
## Cambodia

2023 country results



### IUU score trends

2021 vs 2023  $\downarrow -0.18$



### IUU score ranks

2023 World overall IUU score is 2.28

World ranking	51 of 152 countries $\downarrow -28$
Asla ranking	10 of 20 countries $\downarrow -2$
Western Pacific ranking	11 of 29 countries $\downarrow -1$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.

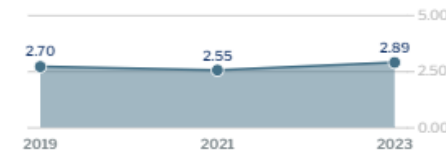
## Indonesia

2023 country results



### IUU score trends

2021 vs 2023  $\uparrow 0.34$



### IUU score ranks

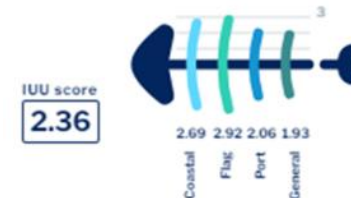
2023 World overall IUU score is 2.28

World ranking	6 of 152 countries $\uparrow 14$
Asla ranking	3 of 20 countries $\uparrow 3$
East Indian Ocean ranking	2 of 9 countries $\downarrow -1$
Western Pacific ranking	3 of 29 countries $\uparrow 4$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.

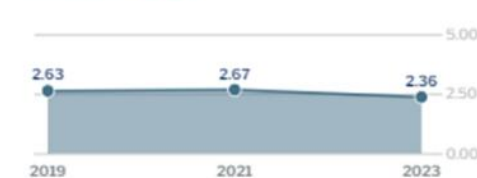
## Japan

2023 country results



### IUU score trends

2021 vs 2023  $\downarrow -0.31$



### IUU score ranks

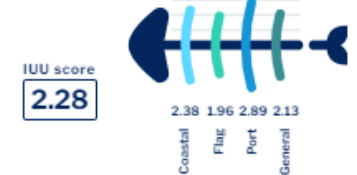
2023 World overall IUU score is 2.28

World ranking	46 of 152 countries $\downarrow -34$
Asla ranking	9 of 20 countries $\downarrow -5$
Western Pacific ranking	9 of 29 countries $\downarrow -4$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.

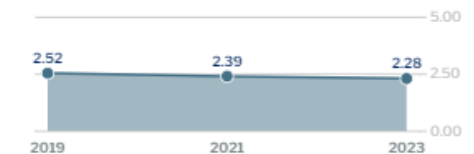
## Malaysia

2023 country results



### IUU score trends

2021 vs 2023  $\downarrow -0.11$



### IUU score ranks

2023 World overall IUU score is 2.28

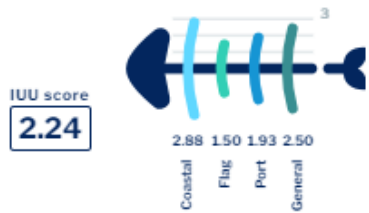
World ranking	77 of 152 countries $\downarrow -30$
Asla ranking	14 of 20 countries $\downarrow -2$
East Indian Ocean ranking	4 of 9 countries $\downarrow -1$
Western Pacific ranking	19 of 29 countries $\downarrow -6$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.

# IUU Index uses many indicators

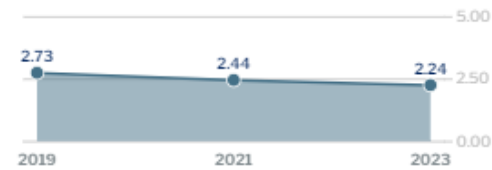
## Myanmar

2023 country results



### IUU score trends

2021 vs 2023  $\downarrow -0.20$



### IUU score ranks

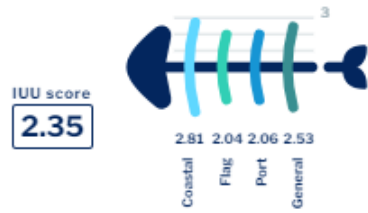
2023 World overall IUU score is 2.28

World ranking	84 of 152 countries $\downarrow -50$
Asia ranking	16 of 20 countries $\downarrow -6$
East Indian Ocean ranking	6 of 9 countries $\downarrow -4$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.

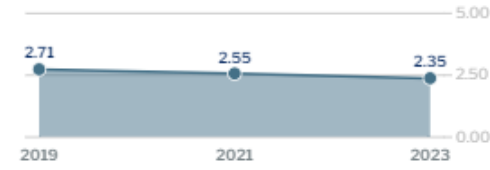
## Philippines

2023 country results



### IUU score trends

2021 vs 2023  $\downarrow -0.20$



### IUU score ranks

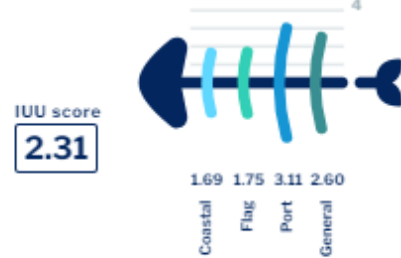
2023 World overall IUU score is 2.28

World ranking	53 of 152 countries $\downarrow -33$
Asia ranking	11 of 20 countries $\downarrow -5$
Western Pacific ranking	12 of 29 countries $\downarrow -5$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.

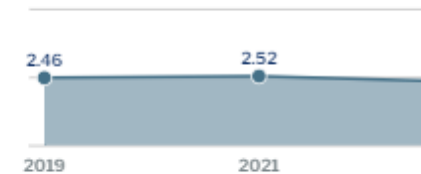
## Singapore

2023 country results



### IUU score trends

2021 vs 2023  $\downarrow -0.21$



### IUU score ranks

2023 World overall IUU score is 2.28

World ranking	66 of 152 countries $\downarrow -40$
Asia ranking	13 of 20 countries $\downarrow -4$
Western Pacific ranking	15 of 29 countries $\downarrow -4$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.

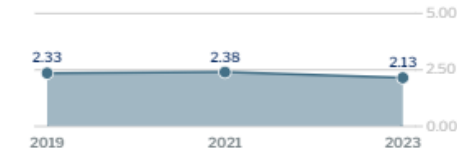
## Thailand

2023 country results



### IUU score trends

2021 vs 2023  $\downarrow -0.25$



### IUU score ranks

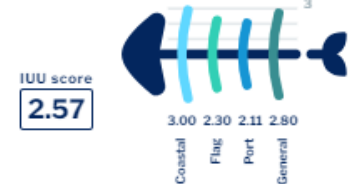
2023 World overall IUU score is 2.28

World ranking	105 of 152 countries $\downarrow -57$
Asia ranking	19 of 20 countries $\downarrow -6$
East Indian Ocean ranking	8 of 9 countries $\downarrow -4$
Western Pacific ranking	23 of 29 countries $\downarrow -9$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.

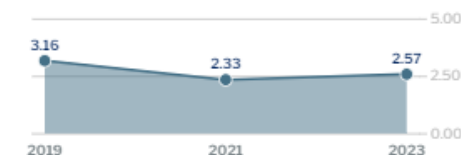
## Vietnam

2023 country results



### IUU score trends

2021 vs 2023  $\uparrow 0.24$



### IUU score ranks

2023 World overall IUU score is 2.28

World ranking	17 of 152 countries $\uparrow 39$
Asia ranking	7 of 20 countries $\uparrow 8$
Western Pacific ranking	7 of 29 countries $\uparrow 8$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance. Green or red arrows show change in 2023 compared to 2021.



## Coastal score

2.69

▼ 0.06

## Coastal score by vulnerability

5.00 – 0

### Related Indicators

	2023	2021	2021-2023 change	2019
Size of EEZ	5.0	5.0	– 0	5.0
Agreement over all maritime boundaries	5.0	5.0	– 0	5.0
Dependency on fish for protein	5.0	5.0	– 0	5.0
Authorise foreign vessels to operate in EEZ	5.0	5.0	– 0	5.0

## Coastal score by prevalence

1.60

▼ 0.20

Has MSC-certified fisheries	1.0	3.0	▼ 2.0	2.0
Views of MCS practitioners on coastal compliance incidents	2.0	1.0	▲ 1.0	1.0

## Coastal score by response

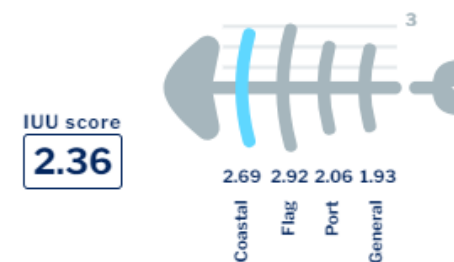
1.00

– 0

Coastal State is contracting party or cooperating non-contracting party to all relevant RFMOs	1.0	1.0	– 0	1.0
Operate a national VMS/FMC centre	1.0	1.0	– 0	1.0

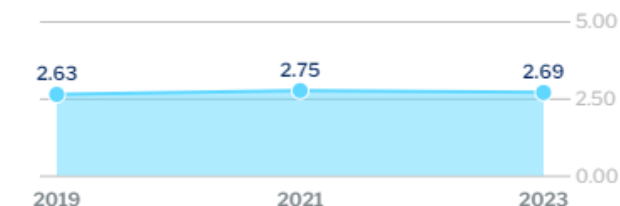
## Japan

2023 country results



## Coastal score trends

2021 vs 2023 ▼ -0.06



## Coastal score ranks

2023 World overall Coastal score is 2.46

World ranking

54 of 152 countries ▼ -11



Asia ranking

9 of 20 countries ▼ -3



Western Pacific ranking

19 of 29 countries ▼ -18





Flag score **2.92** ▼ **0.41**

Flag score by vulnerability **5.00** - 0

Related Indicators	2023	2021	2021-2023 change	2019
Distant water vessels on RFMO RAVs	<b>5.0</b>	5.0	- 0	5.0
Distant water vessels under several RFMOs	<b>5.0</b>	5.0	- 0	5.0

Flag score by prevalence **2.00** - 0

Vessels on IUU lists	<b>1.0</b>	1.0	- 0	1.0
View of fisheries observers on flag state compliance incidents	<b>3.0</b>	4.0	▼ <b>1.0</b>	4.0
Views of MCS practitioners on flag state compliance incidents	<b>2.0</b>	1.0	▲ <b>1.0</b>	1.0

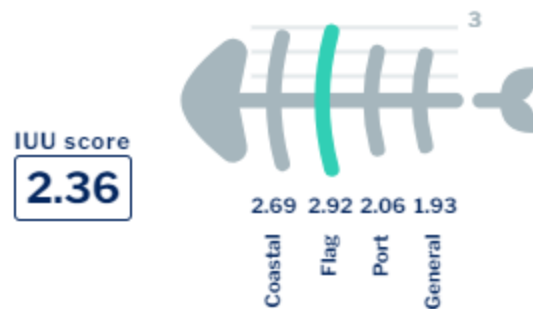
Flag score by response **2.44** ▼ **1.12**

Accepted FAO Compliance Agreement	<b>1.0</b>	1.0	- 0	1.0
Registered vessels with foreign or unknown ownership 	<b>2.0</b>	2.0	- 0	5.0
Provision of vessel data for inclusion in Global Record	<b>1.0</b>	5.0	▼ <b>4.0</b>	5.0
Compliance with RFMO flag state obligations	<b>5.0</b>	5.0	- 0	5.0
Flag State is contracting party or cooperating non-contracting party to all relevant RFMOs	<b>1.0</b>	2.0	▼ <b>1.0</b>	1.0

 Indicator "Authorised vessel data provided to FAO HSVAR" used in 2019 has changed to "Registered vessels with foreign or unknown ownership" since 2021.

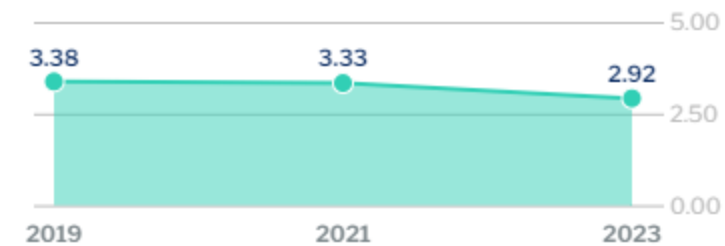
# Japan

2023 country results



## Flag score trends

2021 vs 2023 ▼ -0.41



## Flag score ranks

2023 World overall Flag score is 2.04

World ranking  
12 of 152 countries ▼ -6 

Asia ranking  
5 of 20 countries ▼ -1 

Western Pacific ranking  
6 of 29 countries ▼ -5 

**Port score** **2.06** ▲ **0.17**

**Port score by vulnerability** **5.00** – **0**

Related Indicators	2023	2021	2021-2023 change	2019
Number of fishing ports	5.0	5.0	– 0	5.0
Port visits by foreign fishing or carrier vessels	5.0	5.0	– 0	5.0

**Port score by prevalence** **1.00** ▲ **0.50**

Related Indicators	2023	2021	2021-2023 change	2019
Views of MCS practitioners on port compliance incidents	2.0	1.0	▲ 1.0	1.0
View of fisheries observers on port compliance incidents	1.0	1.0	– 0	2.0

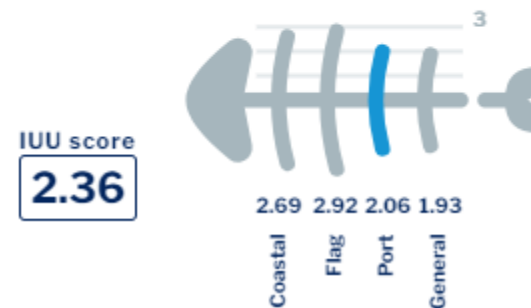


**Port score by response** **1.00** – **0**

Related Indicators	2023	2021	2019-2021 change	2019
Party to the PSMA	1.0	1.0	– 0	1.0
Designated ports specified for entry by foreign vessels	1.0	1.0	– 0	1.0
Compliance with RFMO port state obligations	1.0	1.0	– 0	5.0

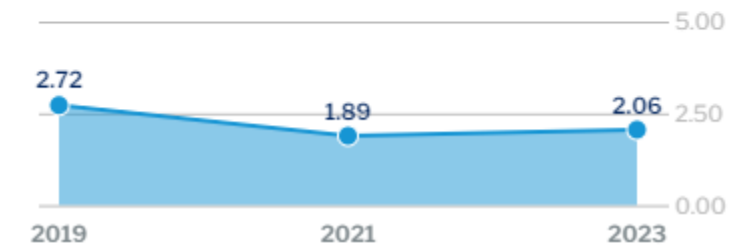
# Japan

2023 country results



## Port score trends

2021 vs 2023 ▲ 0.17



## Port score ranks

2023 World overall Port score is 2.37

**World ranking**  
88 of 152 countries ▲ 3 +

**Asia ranking**  
13 of 20 countries ▲ 3 +

**Western Pacific ranking**  
23 of 29 countries ▼ -22 +

**General score** **1.93** ▼ **0.64**

**General score by vulnerability** **3.00** – 0

Related Indicators	2023	2021	2019-2021 change	2019
Trade balance for fisheries products	4.0	4.0	– 0	4.0
Share of global imports	5.0	5.0	– 0	5.0
Perception of levels of corruption	2.0	2.0	– 0	2.0
Gross national income per capita	1.0	1.0	– 0	1.0
Volume of catches	5.0	5.0	– 0	5.0

**General score by prevalence** **1.29** ▼ **0.14**

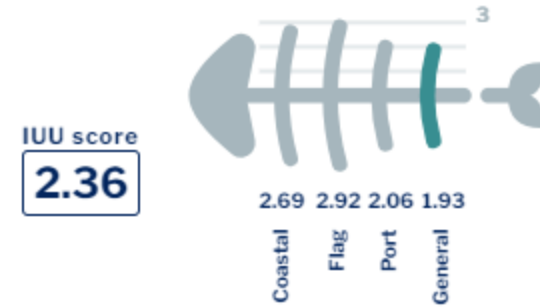
Carded' under the EU IUU Regulation	1.0	1.0	– 0	1.0
Identified' by NOAA for IUU fishing	2.0	1.0	▲ 1.0	1.0
Mentions of IUU fishing in media reports	1.0	2.0	▼ 1.0	2.0

**General score by response** **1.57** ▼ **1.29**

Mandatory vessel tracking for commercial seagoing fleet	1.0	1.0	– 0	1.0
Demand for MSC products	4.0	4.0	– 0	4.0
Ratification/accession of UNCLOS Convention	1.0	1.0	– 0	1.0
Ratification/accession of UNFSA	1.0	1.0	– 0	1.0
Mentions in media reports to combatting IUU fishing	2.0	5.0	▼ 3.0	2.0
Have a NPOA-IUU	1.0	5.0	▼ 4.0	1.0
Market State is contracting party or cooperating non-contracting party to relevant RFMOs	1.0	1.0	– 0	1.0

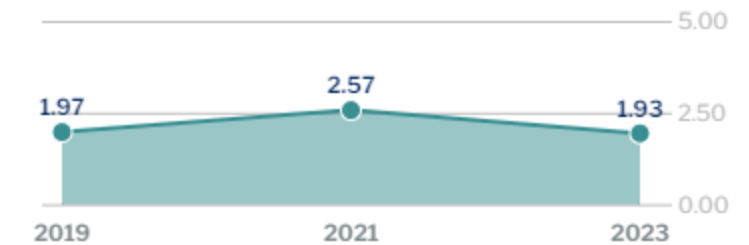
# Japan

2023 country results



## General score trends

2021 vs 2023 ▼ -0.64



## General score ranks

2023 World overall General score is 2.31

**World ranking**  
**121** of 152 countries ▼ -81

**Asia ranking**  
**20** of 20 countries ▼ -9

**Western Pacific ranking**  
**20** of 29 countries – 0

# IUU Fishing Risk Index

## Conclusion

- Recommend to see meaning of each indicator in your own state.

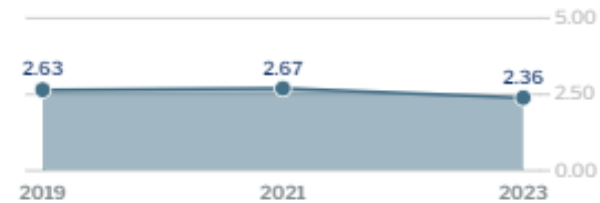
## Japan

2023 country results



## IUU score trends

2021 vs 2023  $\downarrow -0.31$



## IUU score ranks

2023 World overall IUU score is 2.28

World ranking  
46 of 152 countries  $\downarrow -34$

Asia ranking  
9 of 20 countries  $\downarrow -5$

Western Pacific ranking  
9 of 29 countries  $\downarrow -4$

**Note:** Higher scores, and ranks closer to 1, indicate worse/poor performance.

Green or red arrows show change in 2023 compared to 2021.

TABLE 2. COMPANY RANKING AND SCORES

Rank	Company	Headquarter	Region	Score	MA1: Govern. Rank	MA2: Ecosyst. Rank	MA3: Traceab. Rank	MA4: Social Rank
1	Thai Union Group	 Thailand	Asia	47.5	3	9	3	1
2	Nueva Pescanova	 Spain	Europe	43.8	2	7	1	4
3	Nomad Foods	 UK	Europe	43.5	8	1	3	8
4	Mowi	 Norway	Europe	43.0	5	3	9	3
5	Cargill	 USA	N. America	42.0	11	4	6	7
6	Nutreco (Skretting)	 Netherlands	Europe	41.3	6	5	1	9
7	Bolton Group	 Italy	Europe	40.1	10	6	3	6
8	CP Group	 Thailand	Asia	35.4	1	21	18	2
9	Trident Seafoods	 USA	N. America	33.9	23	2	7	20
10	Labeyrie Fine Foods	 France	Europe	30.2	15	8	9	17
11	Royal Greenland	 Greenland	Europe	28.1	17	10	9	13
12	Biomar	 Denmark	Europe	27.2	20	15	13	5
13	Austevoll Seafood	 Norway	Europe	26.6	14	11	13	11
14	Parlevliet & Van der Plas	 Netherlands	Europe	24.7	13	14	12	15
15	FCF Co., Ltd.	 Taiwan	Asia	24.5	4	22	7	12
16	Nissui	 Japan	Asia	23.9	9	18	13	10
17	Marubeni	 Japan	Asia	22.7	7	12	25	16
18	SalMar	 Norway	Europe	22.3	17	13	18	14
19	Maruha Nichiro	 Japan	Asia	20.0	12	17	18	19

The Seafood Stewardship Index measures the world's 30 most influential companies in the seafood industry on their contribution to the UN Sustainable Development Goals.



The World Bank is piloting BEDF in India, Vietnam, and Kiribati in 2019.

These pilots will help refine and improve the BEDF as it is applied to more countries.



BEDF is a set of analytical tools and technical assistance to help countries define a roadmap to a diversified and sustainable maritime economy, while building resilience to climate change.

For more information please contact Miguel Jorge: mjorge@worldbank.org



# BEDF | The Blue Economy Development Framework

A toolkit for a sustainable ocean economy

Oceans are essential for the global economy and a healthy planet. Healthy, productive oceans provide jobs, food and drive economic growth while keeping the planet cool.

Oceans are a primary source of income



3-5% OF GLOBAL GDP

Ocean-based jobs are expected to increase

120% between 2010 AND 2030

Fisheries & Aquaculture assure livelihoods of



10-12% OF WORLD POPULATION

90% OF EXCESS HEAT HAS been stored in the ocean



## Development Framework

How each contributes to a Blue Economy

### and Fiscal Reforms

Efficient use of public resources and lack of standards leads to unsustainable growth, damage and cross-sector conflicts.



Help countries apply integrated and inclusive planning and decision-support tools for blue growth



Help identify public investments in blue and grey infrastructure



Identify opportunities for innovative financing of blue growth (blue bonds, insurance, etc.)



Offer financial sector technical assistance and standards to adopt blue investment principles



Design incentives to make maritime sector investments climate-resilient

## Blue Economy

Increased fish stocks and improved fisheries

Better jobs for people living along the coast

Coastal communities more resilient to climate change

New ocean sectors (e.g. Offshore wind energy)

Cleaner and more attractive coasts and oceans



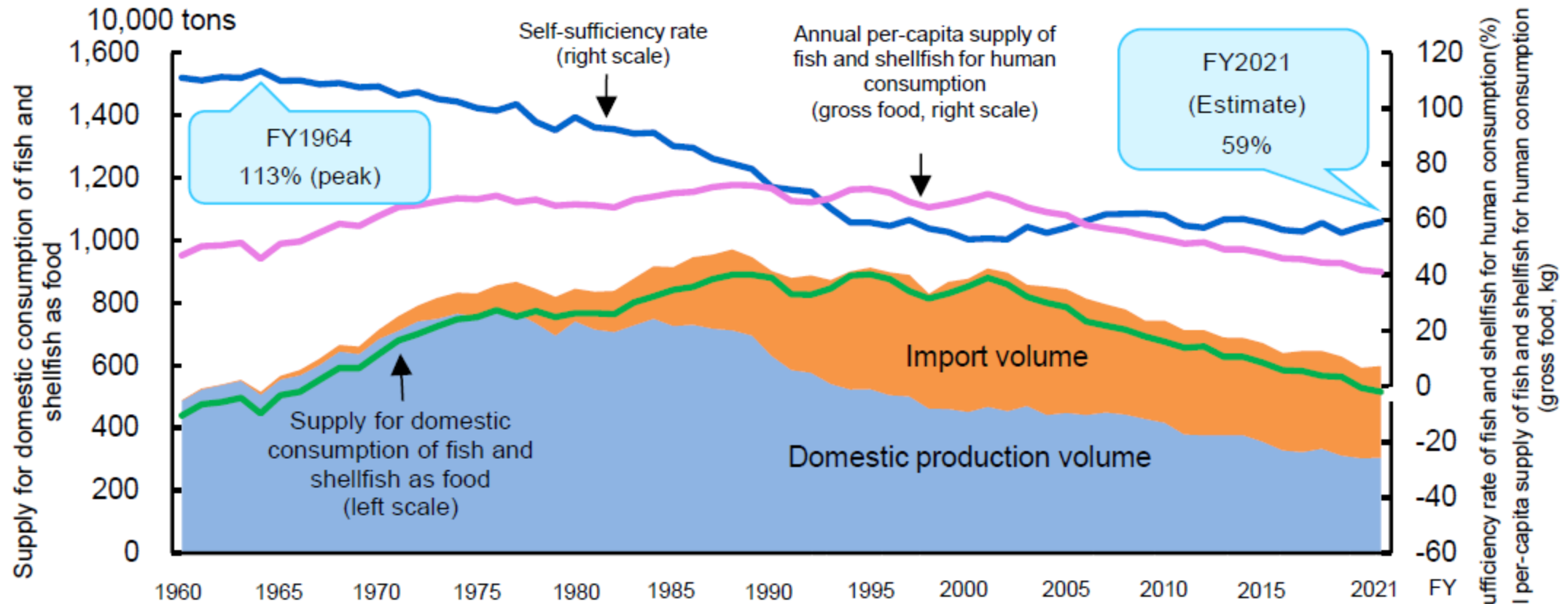
# 1. Challenges of the Fisheries and Aquaculture Sector in Japan



- Total fisheries production in 2022 has decreased by 1/3 in 2002 (3.92 MT in 2022)
- Seafood consumption constantly decreases (40.4 kg/ capita/year with discards in FY2022; 22.0 kg/capita/year)
- Fishery population has decreased by 40% over last 15 years (123,100 in 2022)
- Global procurement requirements
- Climate changes: global warming

## 2. Challenges – Fisheries Production Trend in Japan

### Trends in the Self-Sufficiency Rate of Fish and Shellfish(for human consumption)

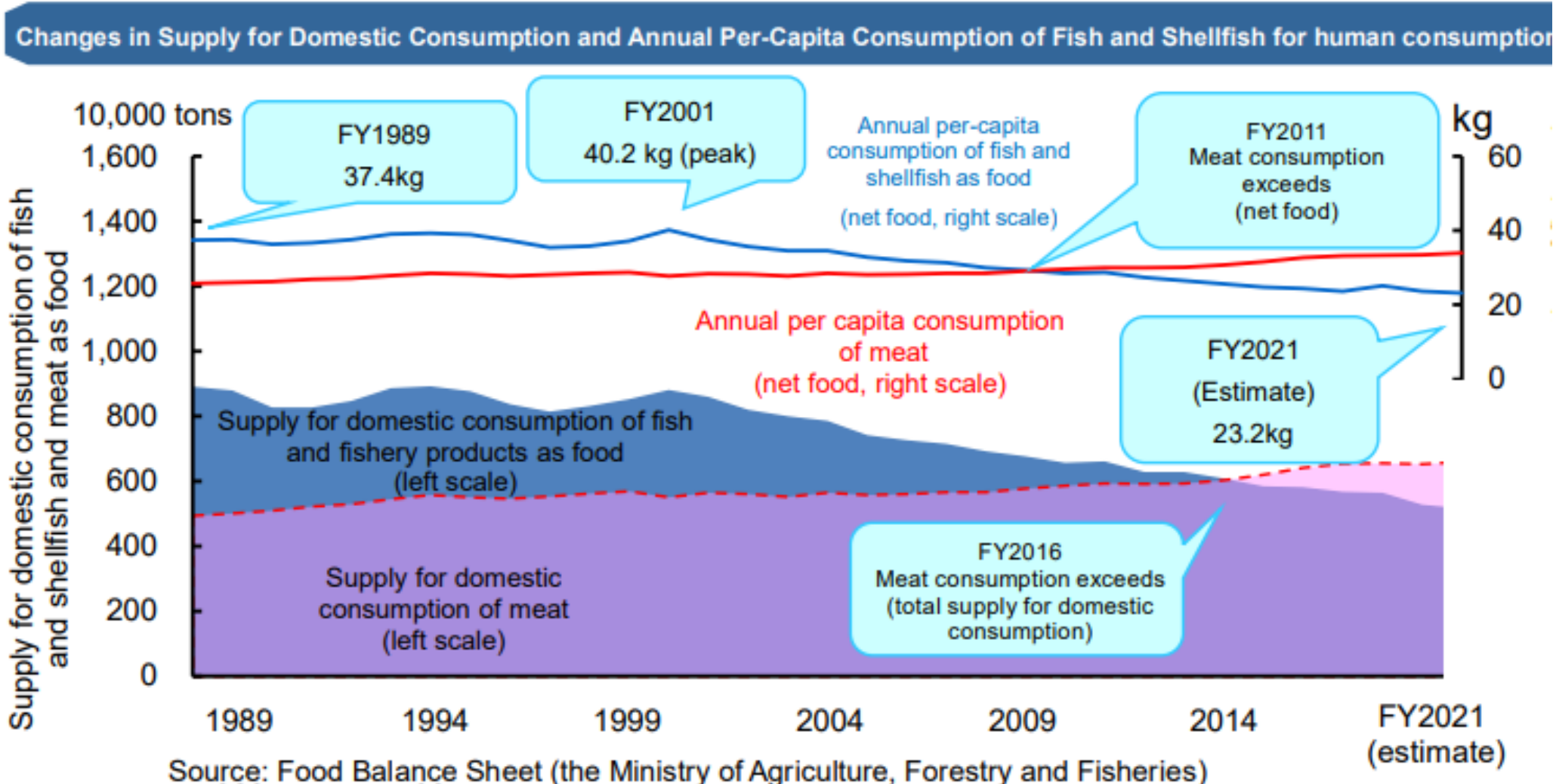


Source: Food Balance Sheet (the Ministry of Agriculture, Forestry and Fisheries)

Note: Self-sufficiency rate (%) = (Domestic production volume / Total supply for domestic consumption) × 100  
 Total supply for domestic consumption = Domestic production volume + Import volume - Export volume ± Increase/decrease in inventory

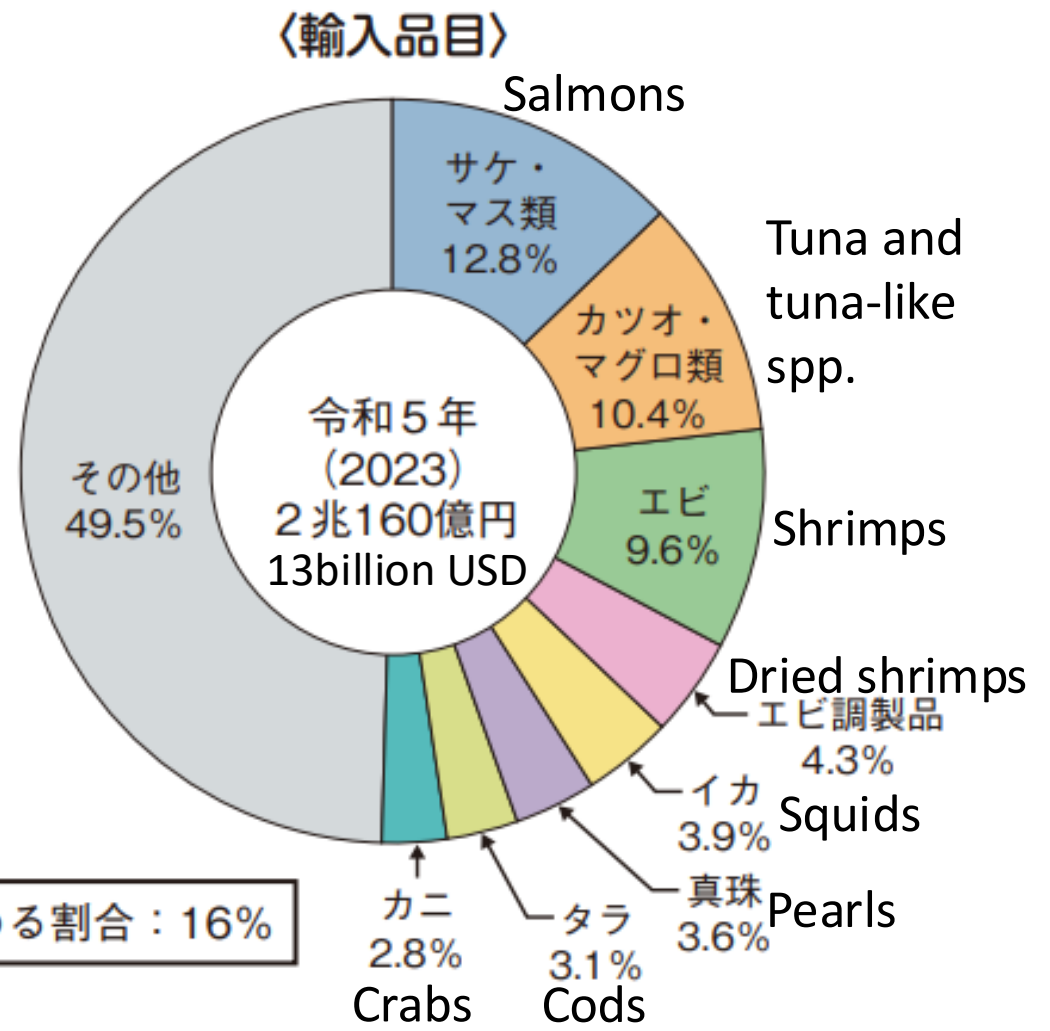
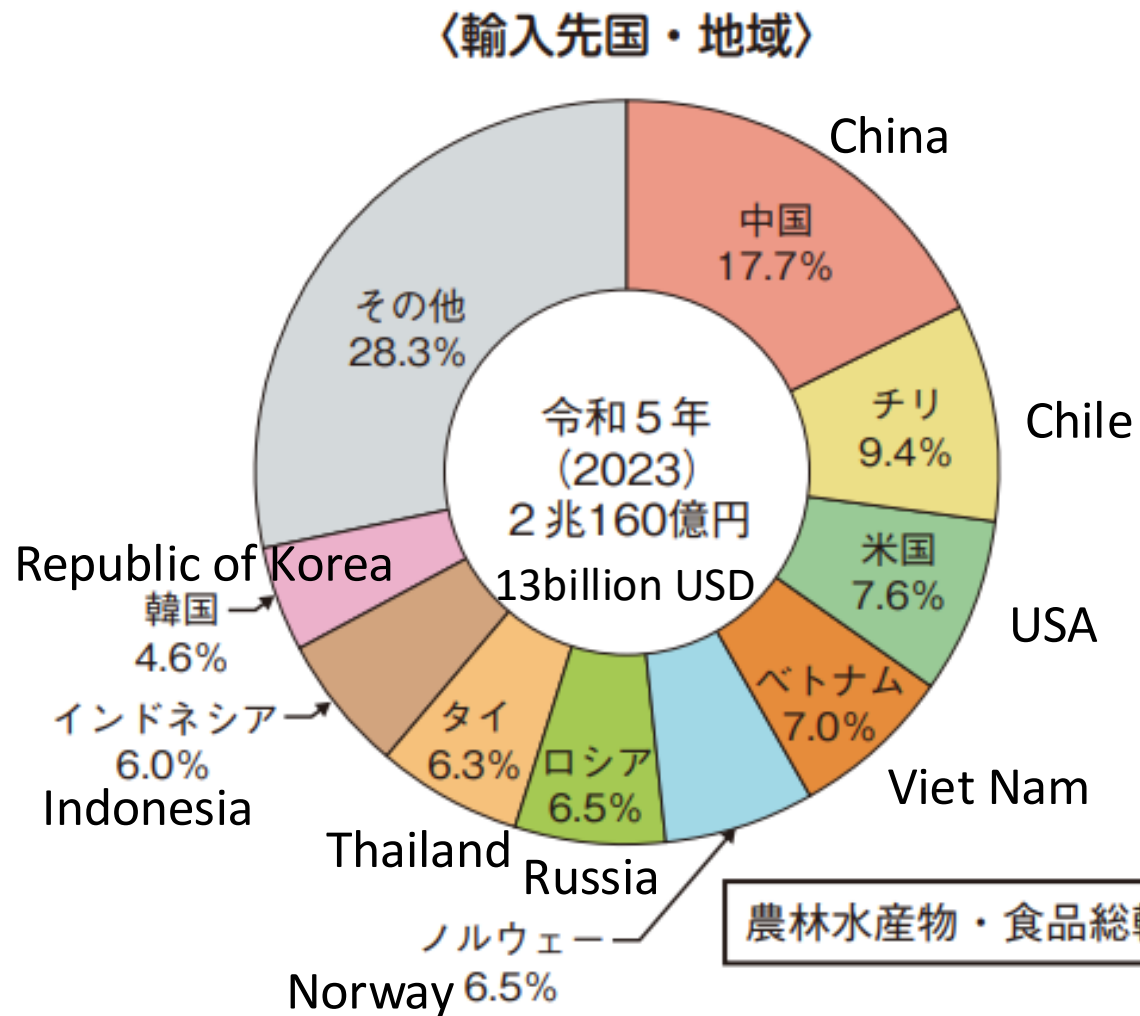


# 3. Challenges – Seafood consumption decline



- Seafood consumption in Japan became 22.0 kg/capita/year in FY2022 and 40.4 kg/capita/year with discards in FY2022
- World consumption was 20.4 kg/capita/year with discards between 2020 and 2022

# 4. Imports to Japan in 2023 (Japanese Yen)



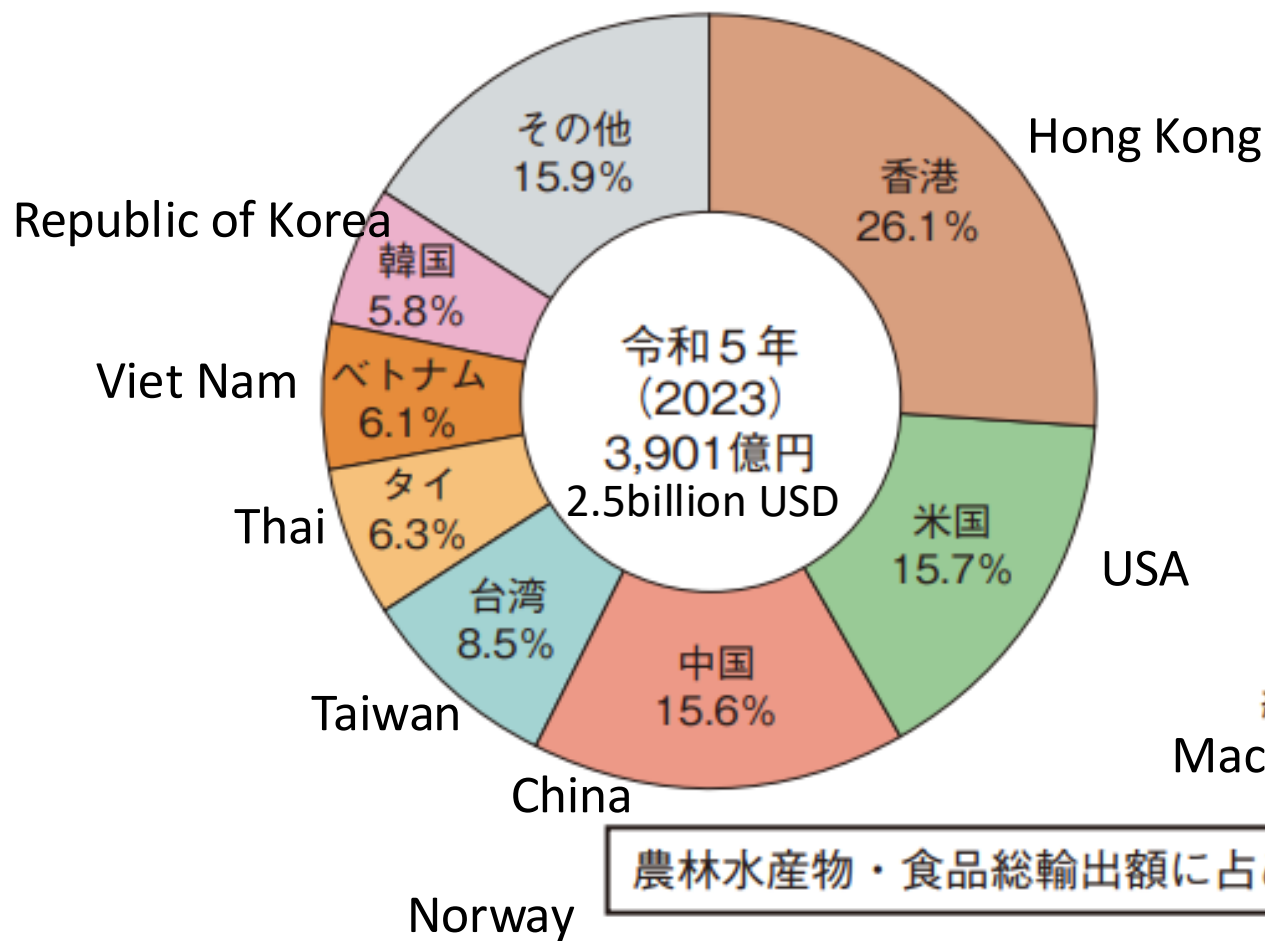
農林水産物・食品総輸入額に占める割合：16%

資料：財務省「貿易統計」（令和5（2023）年）に基づき水産庁で作成

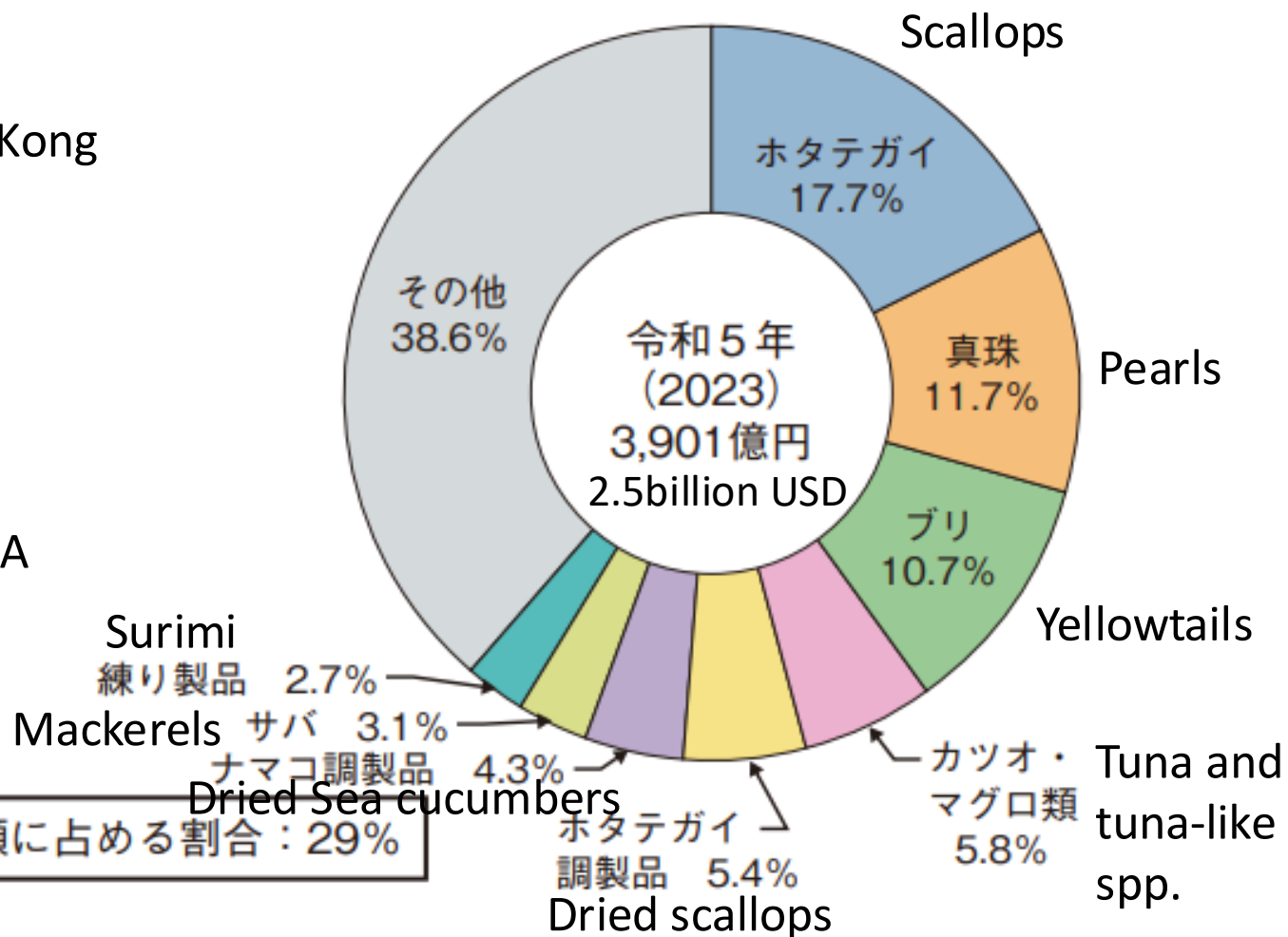
Source: Japan Fishery Agency 2023 Annual Report

# 5. Exports from Japan in 2023 (Japanese Yen)

〈輸出先国・地域〉



〈輸出品目〉





# Purpose of the New Fisheries ACT (effective December 2020); the reform is the first time in 70 years

- Maintain sustainable fisheries
- Promote effective utilization of the fishing/aquaculture areas
- Improve productivity in fisheries



# Six major points of the new ACT

## A. New Fisheries Management

- Increase number of species for TAC (192 spp.); landing of the TAC species will be ca. 80% of the total
- Introduce an Individual Quota (IQ) System

## B. Licensing

- Issue more flexibly (not necessarily every 5 years)

# Six major points of the new ACT 2

## C. Fishery Rights

- No change for the common fishery right for algae, shellfish, and sea cucumbers
- The fixed gear fishing right and the demarcated fishing right will be granted for fishers who manage fishing/aquaculture well and accept new comers.

## D. Sea-area Fisheries Adjustment Commission

- Total number of commission members will be more flexible between 10 and 20.
- Prefectural Governors will appoint appropriate commission members.

# Six major points of the new ACT 3

## E. Combating Illegal Fishing

- More strict punishment for an illegal fisher/buyer up to a 3-year sentence or 0.26 million USD fine for sea cucumbers and others.

## F. Fisheries Cooperative Associations

- The new purpose is to increase income of fishers

# Working for Traceability

Another new Act for seafood traceability was instituted in December 2020

- ❖ One traceability system for expensive sea cucumbers and abalones started from December 2022.
- ❖ Another traceability system for glass eels will start from December 2025.
- ❖ The Act also considers traceability of high-risk imported seafood from overseas to combating IUU fishing.
- ❖ The Japan CDS requires catch certificates for four species (i.e. squid and cuttlefish, pacific saury, mackerel, and sardine) imported to Japan which should be issued by the competent authority of flag State of the vessel to certify that they were caught legally.



# Revitalization of fishing villages by Umigyo

- Problems: population decrease and aging society in fishing villages; decreased economy in the villages.
- Umigyo includes fisheries (SSF), natural resources, recreational business, cultural and traditional activities, renewable energy and so on
- Umigyo seeks new employment and increase of income



初めでの体験が沢山でワクワク！

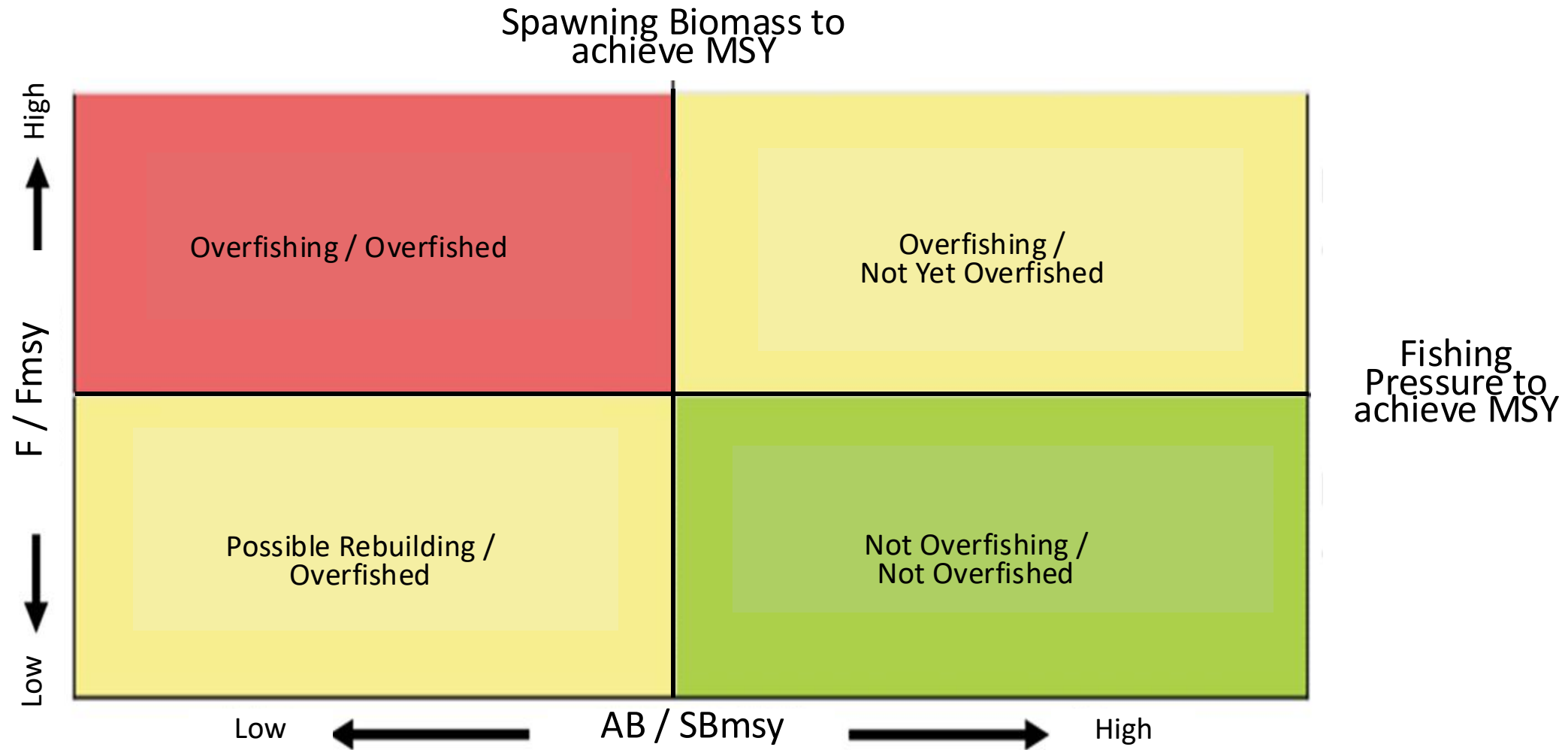
町が元気になる、活性化するよう頑張っています！

漁業(うみぎょう)とは、漁や漁村の地域資源の調練や魅力を活かした事業で、地域のにぎわいや所得と雇用を創出するもの。漁港での水産物の販売や料理の提供、遊漁、漁業体験等。

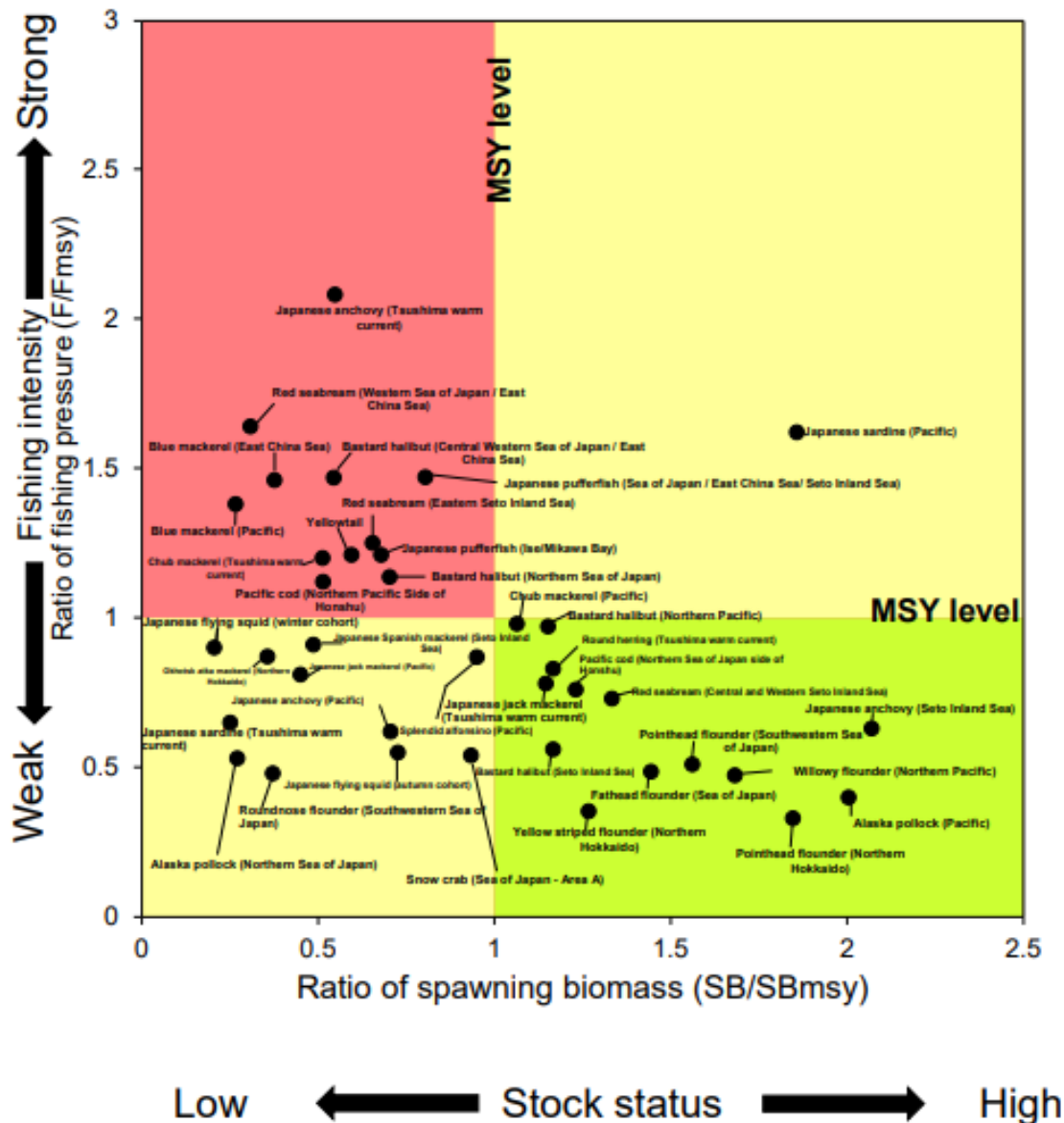
水産庁

# New Fisheries Policies – Kobe Plot

- Kobe Plot (Measure for Stock Condition)



# Stock Assessments based on MSY in 2022

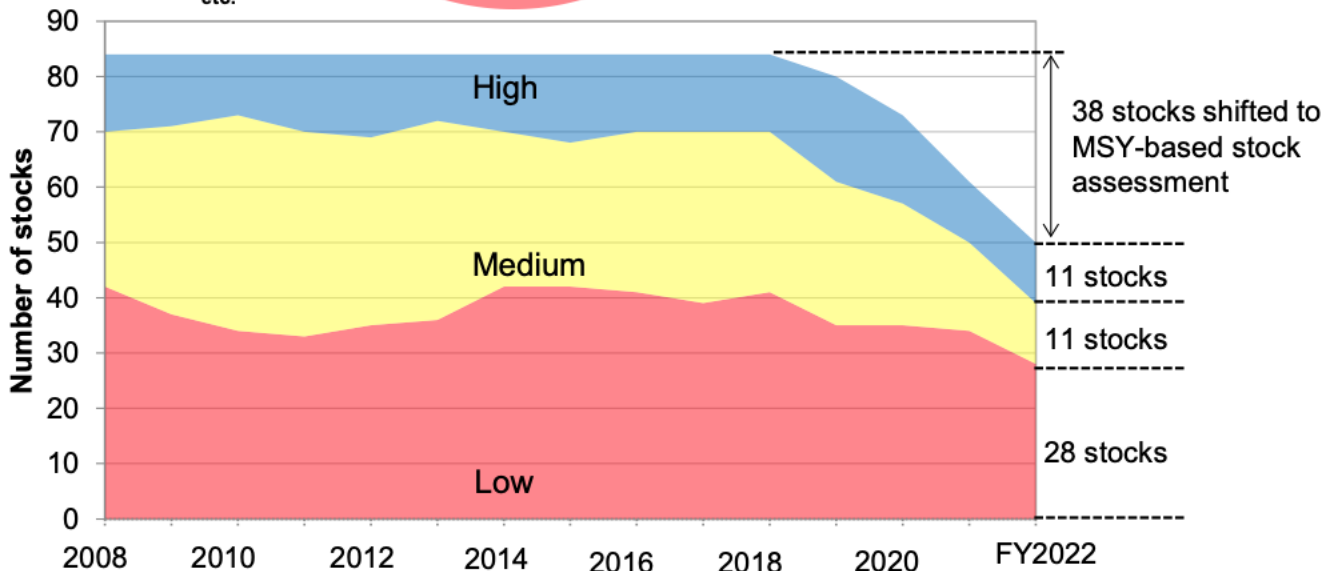
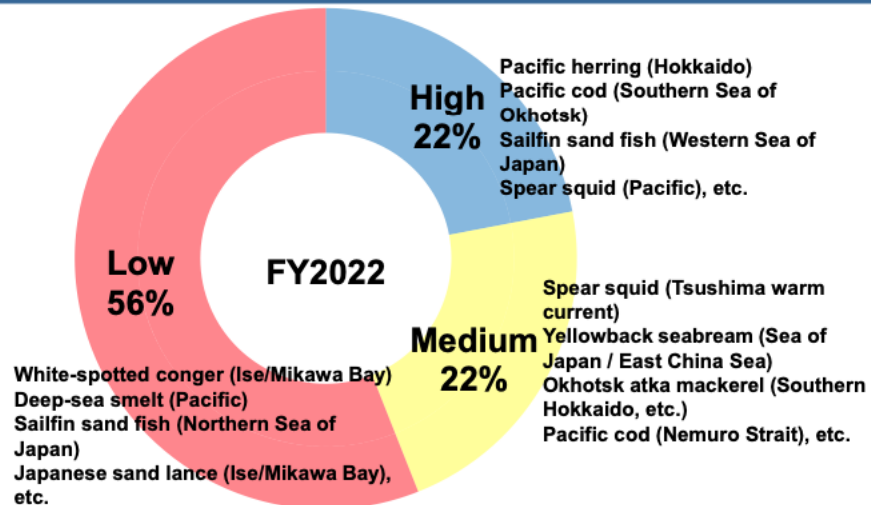


- The number of those fisheries species subject to the estimation of abundance and fishing intensity for the purpose of achieving the MSY (Maximum Sustainable Yield) was expanded from 26 stocks of 17 fisheries species in 2021 to 38 stocks of 22 fisheries species in 2022 and 2023

# Stock Assessments based on MSY in 2022



## Stock Assessment With Three Levels of Condition: High, Medium, and Low

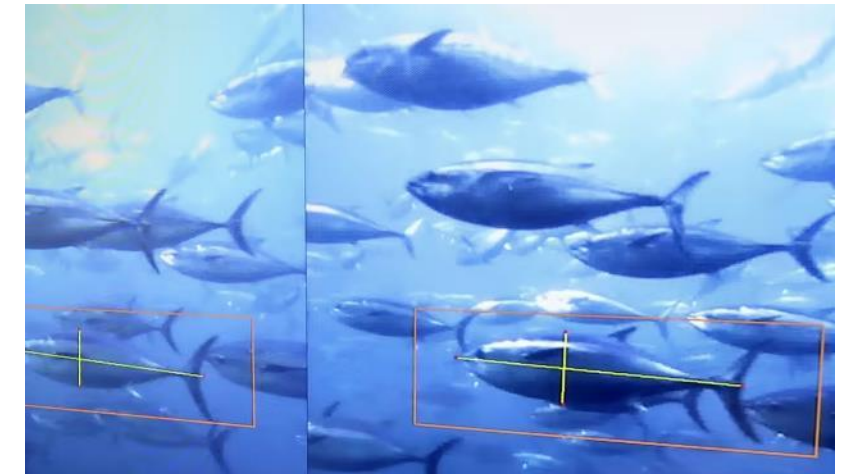
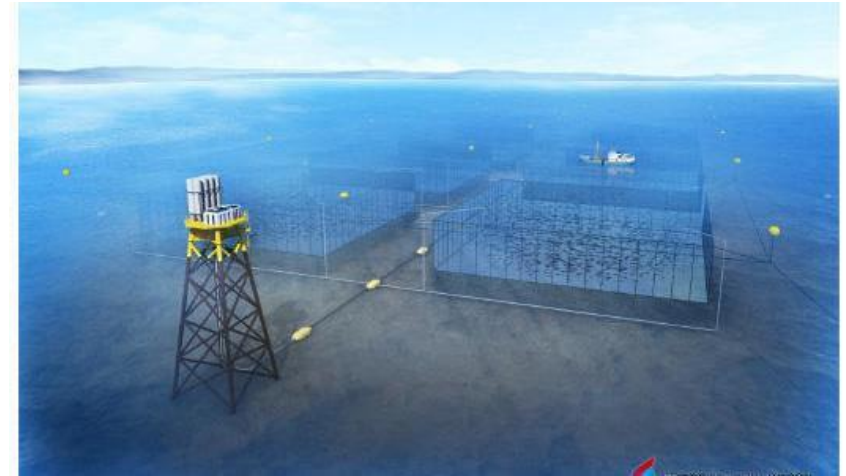


- For 50 stocks of 36 fisheries species, stock assessments were made with three levels of stock condition: high, medium, and low. In 2023, ten stocks are high level, nine stocks medium and 31 stocks low.



# New Fisheries Policies – Aquaculture Growth Strategy

- Basics
  - Become market-driven business model
  - Value creation integrated with full supply chain layers
- Strategic Species
  - Yellowtail/Amberjack, Red Sea Breams, Bluefin Tuna, Salmon/Trout, Scallops and Pearls
- Initiatives and Technologies
  - Overseas market development
  - Sustainable production
    - Production expansion, feed efficiency, fish disease measure, etc.
  - Innovation
    - AI monitoring, automatic feeding, large-scale offshore cages, submerged cages, etc.

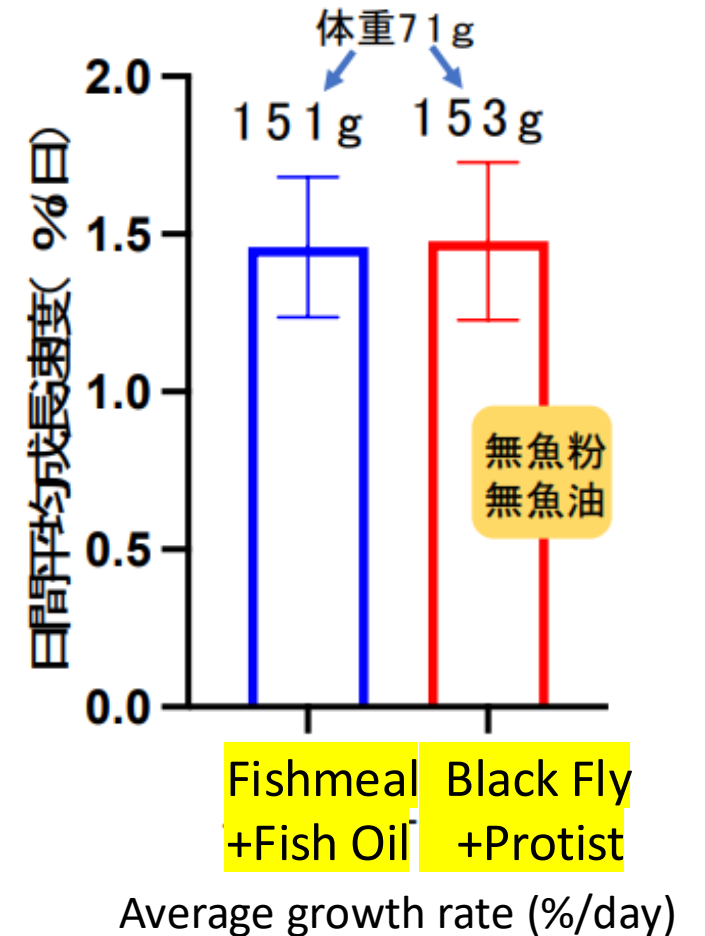


# The black soldier fly *Hermetia illucens*

## The protist *Aurantiochytrium limacinum*

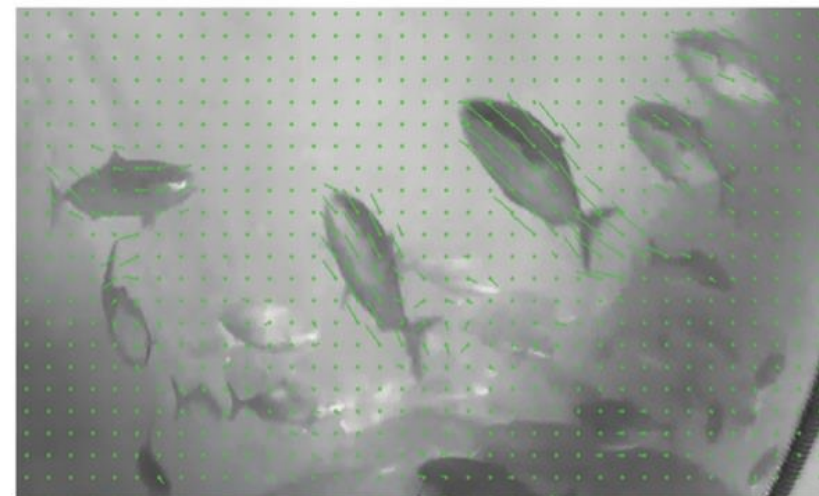


### New feed for Sea Bream Aquaculture



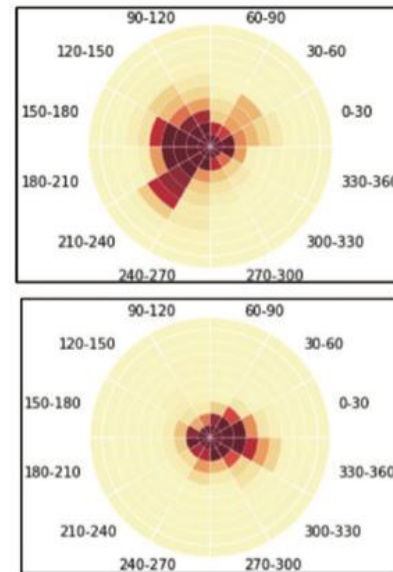
# Aquaculture AI Drone for Automatic Feeding by Prof. T. Kobayashi, Nagasaki Univ.

■ 図1 Optical FlowによるRose Mapの作成



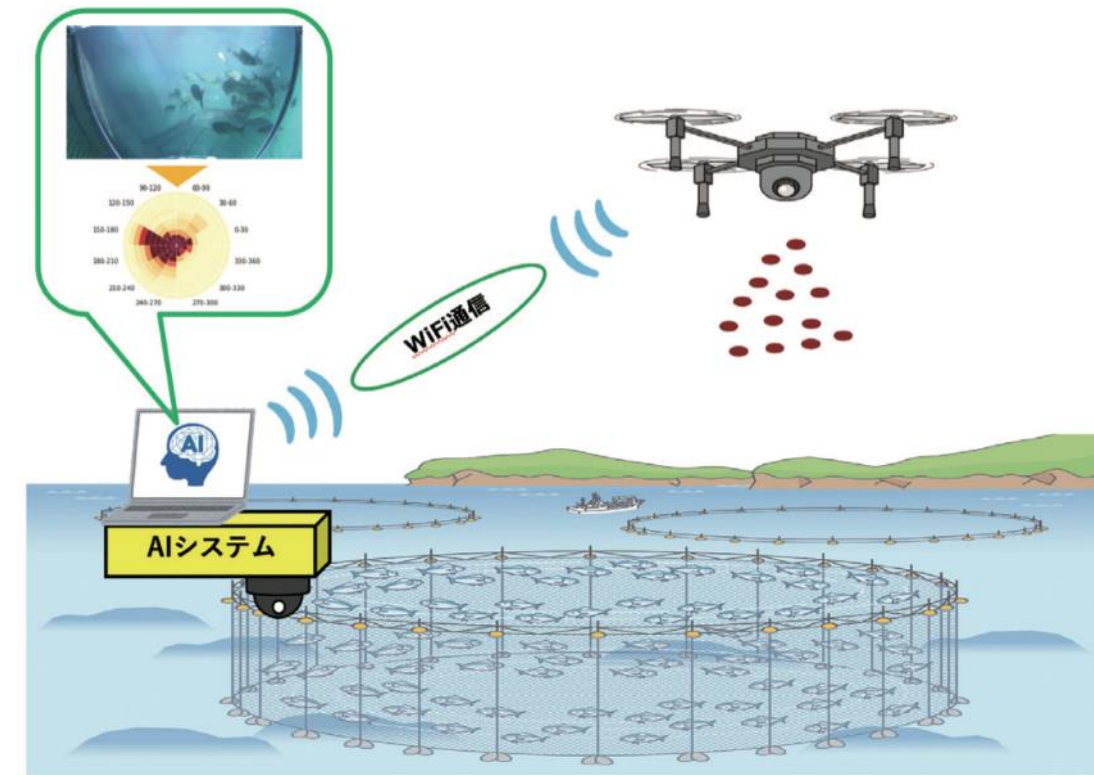
(a) Optical Flow

Hungry  
空腹  
↓  
満腹  
Full



(b) Rose Map

■ 図2 AIドローン

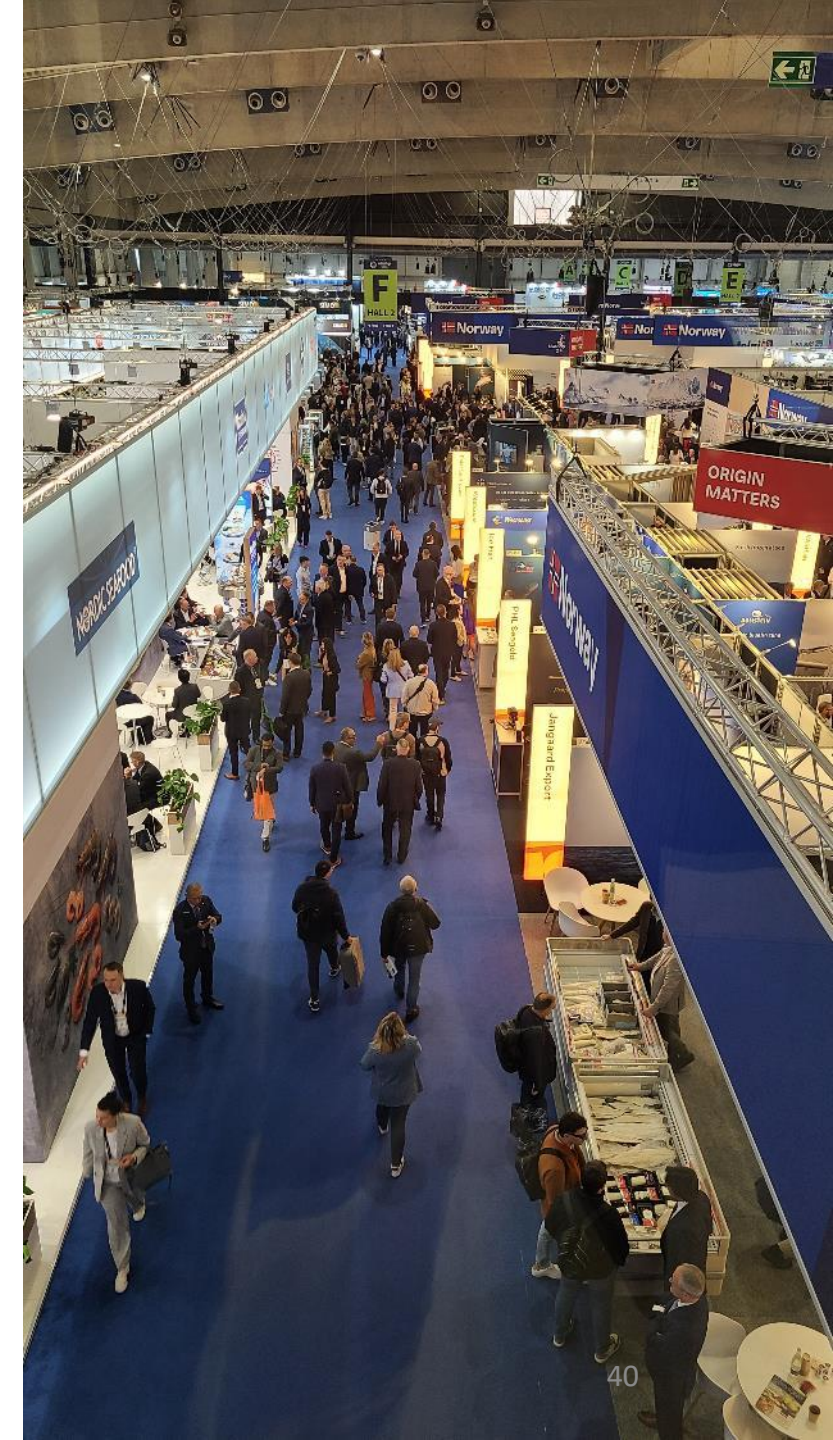






# Issues at Seafood Expo Global 2024 Barcelona

- Environments
- Sustainability
- Global warming
- Carbon footprints
- Recycling
- Human rights
- Animal welfare
- Holistic approach





# 1. MEL Overview

- Marine Eco-Label Japan (MEL) is the fisheries certification program developed in Japan and adapts to Japan's diverse fisheries, environment, ecosystem and industries.
- MEL is one of the GSSI-recognized seafood certification schemes, and the only one for capture fisheries and aquaculture.
- MEL complies with FAO CCRF and Guidelines to ensure the sustainability of marine resources and the conservation of the environment and ecosystems.
- MEL aims to contribute to sustainable development of seafood industry and foster fish-eating culture as social infrastructure of credible seafood.



## 2. MEL Certification Program – Uniqueness

- Adapt to Japan's Diversity
  - Fish species, fishing method, fishing grounds, processing, etc.
  - Small-scale fisheries accessible
- Japan's RFM program
  - Responsible for sustainable fish stocks and environment
  - Focus on origin and local
  - No variable royalty fee
- Local Production and Local Market
  - Fishers, processors and markets (consumers) adjacent to each other
  - Food safety, transparent distribution, environmental measures
  - Develop distinct CoC standard (traceability)



# 3. MEL's History

- 1995 FAO Code of Conduct for Responsible Fisheries
- 2005 FAO Guidelines for Ecolabeling of Fish and Fishery Products from Marine Capture Fisheries
- 2007 MEL Japan was established by Japan Fisheries Association
- 2011 FAO Technical Guidelines on Aquaculture Certification
- 2013 GSSI (Global Sustainable Seafood Initiative) established
- 2015 UN 2030 Agenda for Sustainable Development (SDGs)
- 2016 MEL Japan Council incorporated
- 2019 MEL Japan acquired GSSI recognition (MEL ver.2.0)
- 2021 MEL FMS ver.1.0 expired, MOCA completed (Tokyo Olympics)
- 2022 MEL AMS ver.2.0 effective
- 2023 MEL completed GSSI Benchmark ver.2.0
- 2024 MEL AMS ver.2.1 effective



## 2-4. GSSI recognized certifications

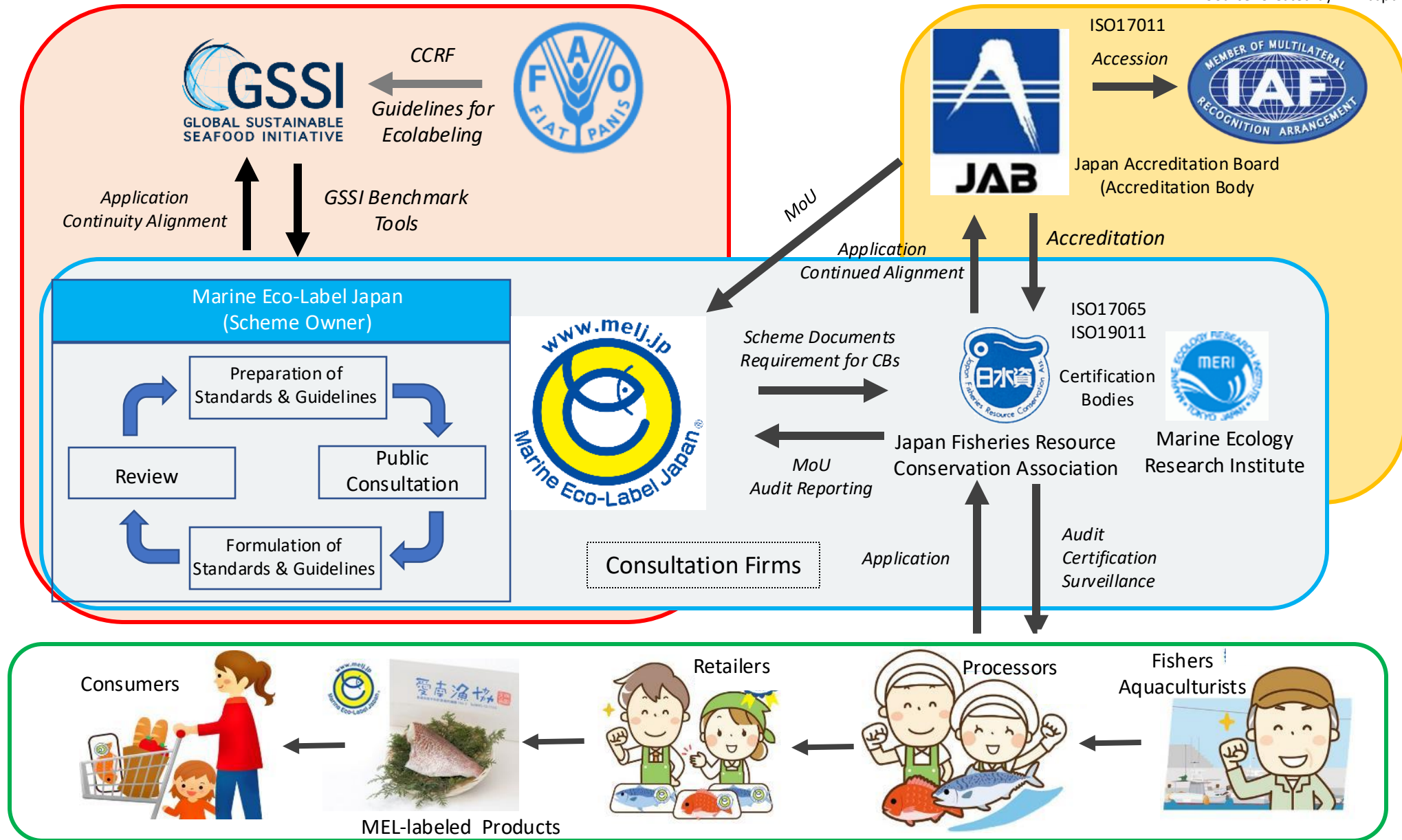
 <b>Alaska RFM</b> 漁業 (米国) 2016年7月承認	 <b>BAP</b> 養殖 (米国) 2017年10月承認	
 <b>Iceland RFM</b> 漁業 (アイスランド) 2016年10月承認	 <b>GLOBAL GAP</b> 養殖 (ドイツ) 2018年4月承認	 <b>CQA</b> 養殖 (アイルランド) 2019年2月承認
 <b>MSC</b> 漁業 (英国) 2017年3月承認 世界 550件 (約1,600万トン) 日本 18件 (約50万トン) CoC: 世界 5,882件、日本 367件 (2023年12月)	 <b>ASC</b> 養殖 (オランダ) 2018年8月承認 サーモンとエビでGSSI承認 世界 2062養殖場、196万トン 日本 17件 (2023年12月)	 <b>MEL</b> 漁業・養殖 (日本) 2019年12月承認 漁業25件、養殖67件、CoC165件 (合計257件) 37魚種、2013年 は44.5万トンで12% (2024年7月 30日)

・ GSSIベンチマークツールV2.0改訂⇒2021年11月公開、2023年9月MEL継続承認

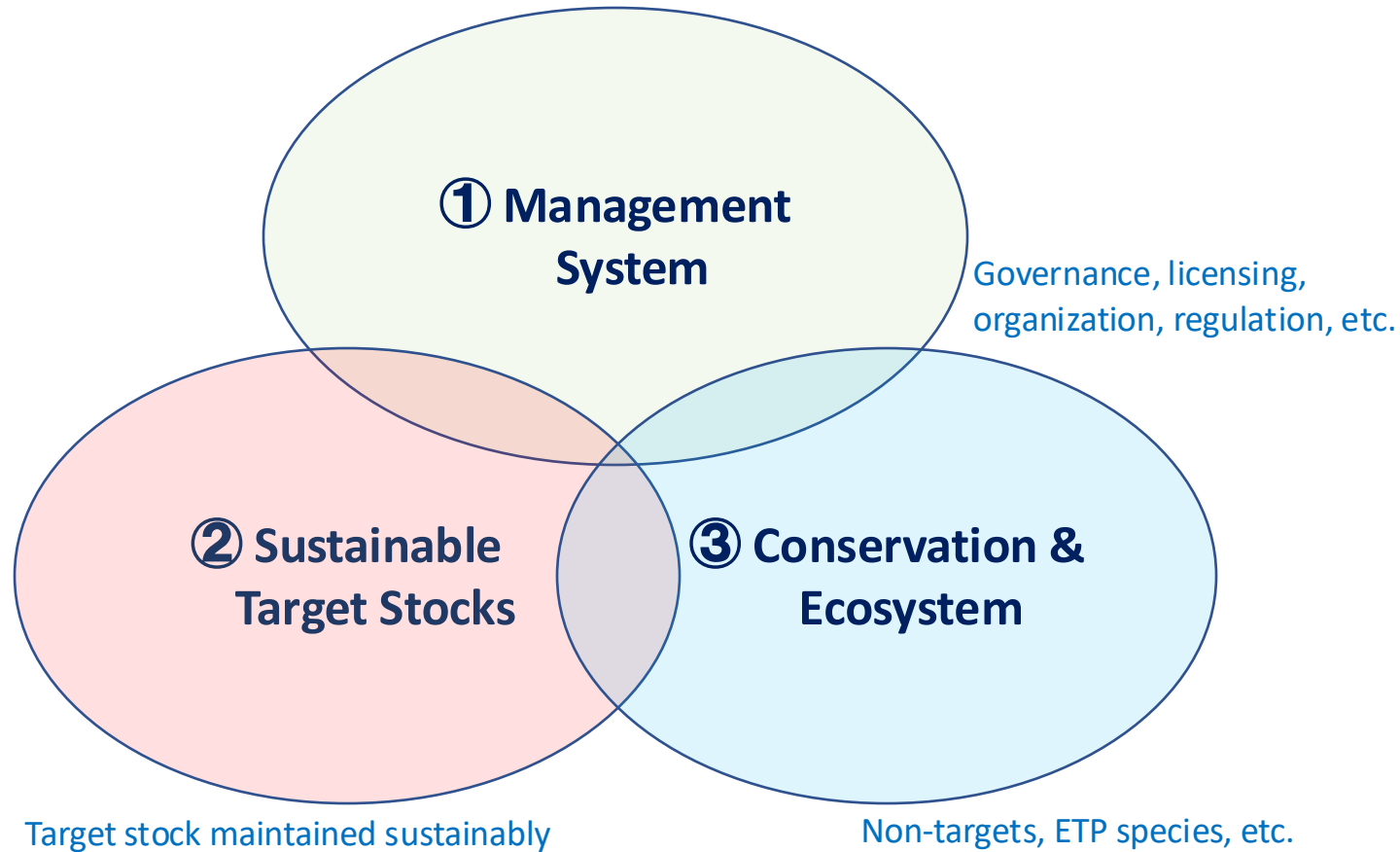


# 4. Third Party Certification System

Source: Created by MEL Japan

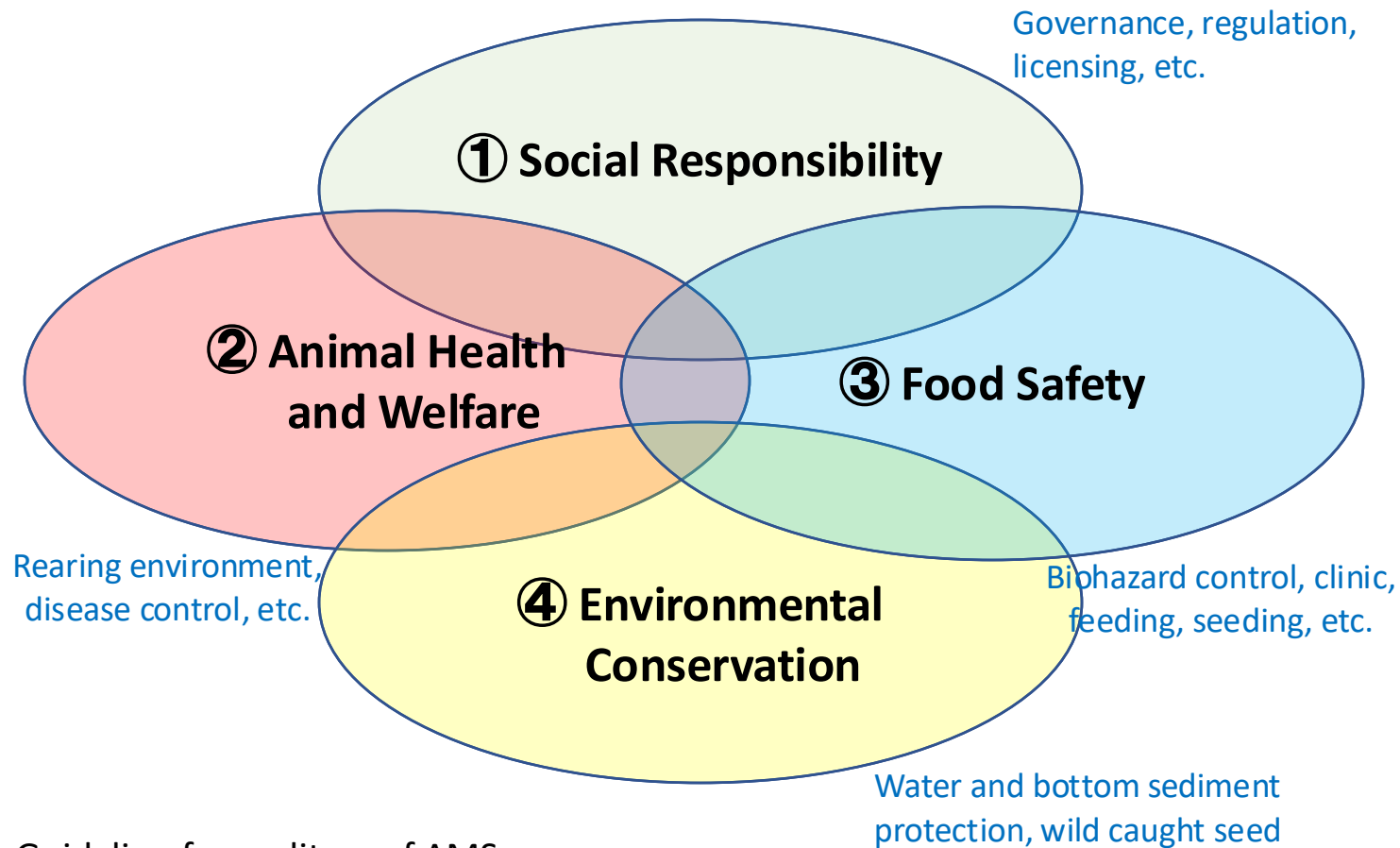


# 5. Fisheries Standard



- Guideline for auditors of FMS
- Audit check sheet for FMS
- Requirement for CB's certifying FMS

# 6. Aquaculture Standard

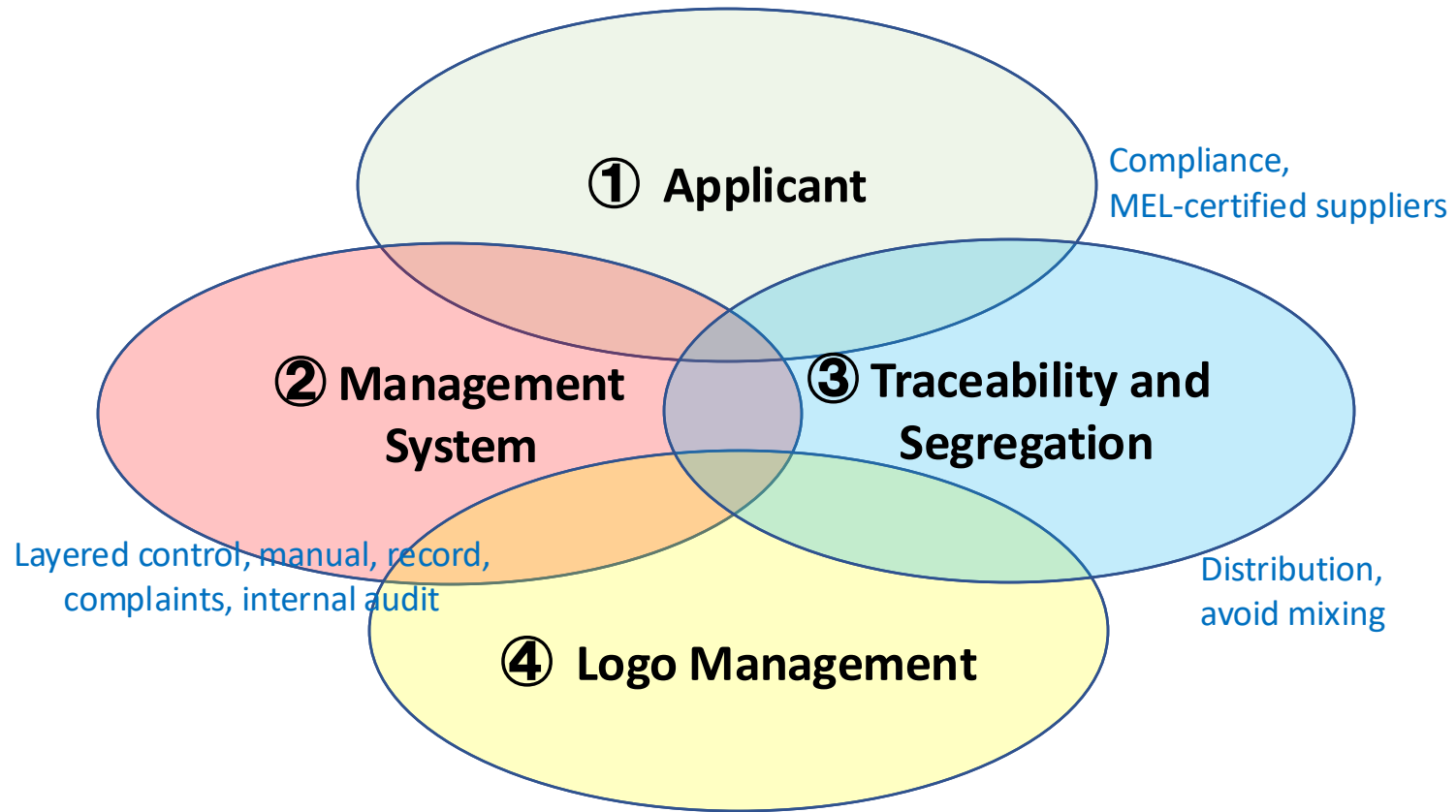


- Guideline for auditors of AMS
- Audit check sheet for AMS
- Requirement for CB's certifying AMS





# 7. Chain of Custody (CoC) Standard



- Guideline for auditors of CoCS
- Audit check sheet for CoCS
- Requirement for CB's certifying CoCS





MEL 認証件数

258 件



漁 漁業 生産段階認証 25 件  
養 養殖業 生産段階認証 68 件

CoC 流通加工段階認証 165 件

MEL 認証された 水産物 (生産段階認証)

As of 24 Sept. 2024

# 8. Number of Certification



Source: MEL Japan Council

# 9. MEL-Certified Volume



Source: Created by MEL

	Certified Species	MEL catch in 2023	Total Catch in Japan (ton)	
			2023 (preliminary)	MEL prop.
Capture Fisheries	Chum Salmon	53,252	60,100	89%
	Skipjack	132,018	152,600	87%
	Albacore	5,296	32,200	16%
	Yellowfin Tuna	27,605	52,500	53%
	Bigeye Tuna	424	26,600	2%
	Japanese Anchovy	6,663	114,200	6%
	Juvenile Anchovy	18,347	48,900	38%
	Chub Mackerel	40,178	261,100	15%
	Japanese Horse Mackerel	22,373	92,000	24%
	Yellowtail	8,936	80,800	11%
	Atka Mackerel	4,924	31,500	16%
	Herring	2,086	18,000	12%
	Sea Bass	119	4,800	2%
	Red Snow Crab	5,727	11,900	48%
	Surf Clam	802	5200 *	15%
	Freshwater Clam	905	9,211	10%
	Japanese Glass Shrimp	152	500 *	30%
	<b>Sub-total</b>	<b>329,978</b>	<b>2,844,965</b>	<b>12%</b>

	Certified Species	MEL Production in 2023	Total Production in Japan (ton)		
			2023 (preliminary)	MEL prop.	
Aquaculture	Yellowtail	37,103	94,300	39%	
	Amberjack	2,911	24,400	12%	
	Kingfish	731	4,300 *	17%	
	Burimasa Hybrid	290			
	Red Sea Bream	16,859	68,000	25%	
	Striped Horse Mackerel	507	4,700	11%	
	Flounder	230	1,700	14%	
	Coho Salmon	4,632	22,100	21%	
	Ayu Sweetfish	725	3,387	21%	
	Scallop	51,987	151,300	34%	
	Japanese Oyster	6,195	146,300	4%	
	Wakame Seaweed	1,811	49,600	4%	
	<b>Sub-total</b>	<b>124,610</b>	<b>879,299</b>	<b>14%</b>	
	Capture Fisheries & Aquaculture				
	<b>Grand Total</b>	<b>454,588</b>	<b>3,724,264</b>	<b>12%</b>	



# 10. MEL with Local Communities

Local municipal governments and communities encourage fisheries to acquire MEL shown examples below:

- Ainan Town, Ehime Prefecture
  - Accounts for 20% of total Red Sea Breams farming
  - Ainan’s “Eco Fish” campaign
- Gujo City, Gifu Prefecture (in-land)
  - Sweet Fish (Ayu) of Nagara River gained GIAHS
  - Satokawa Project – aquatic environment, fishing resources and daily lives of people
- Minami-Chita Town, Aichi Prefecture
  - Regional Development program of “Meena’s Blessing”
  - Shirasu (whitebait) fishers and processors work together with town’s initiatives





# 11. MEL on Products



Photo Sources: MEL Japan Council



# 12. MEL at Restaurants

## In Yokohama

### Near Tokyo Station





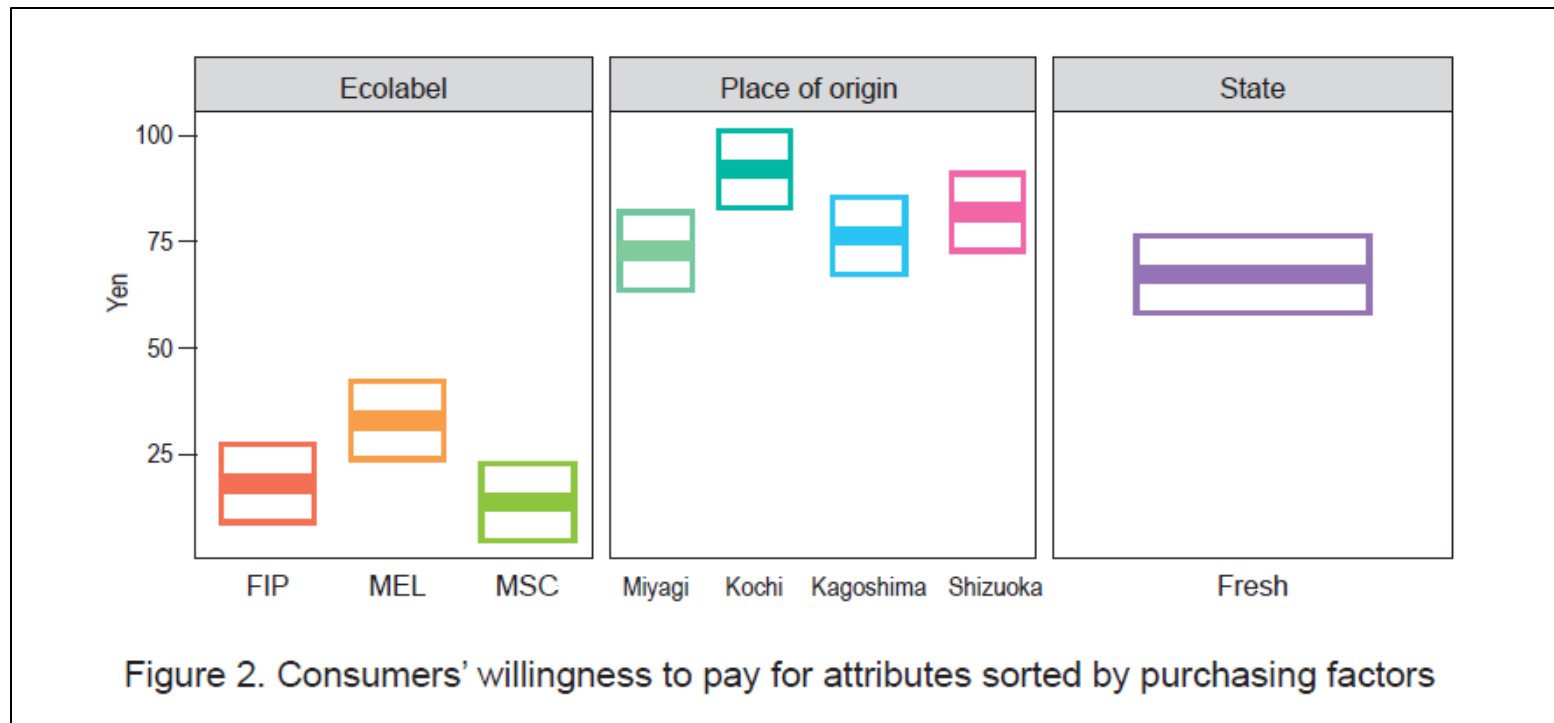
# Wakamatsu and Maruyama (2023): Sustainability 2024, 16(6), 2530

## Do Consumers Prefer Fish Products from Fisheries Improvement Project?: Case of Bigeye Tuna in Japan

- Based on 2875 valid responses, 10% of the respondents were aware of MEL and 10% were aware of MSC.
- The analysis resulted in a significant price premium for FIP and domestic certification valued more than international brands. Sum of the base attributes (no label, thawed, and foreign) was 602 yen.



図1 選択実験に使われたメバチマグロの画像



# 14. MEL Recognition Penetration

- Focus on B2C Communication
  - Utilization of SNS (Instagram, Facebook)
  - Target kids and family
  - Participate in study session at schools
- Brand Penetration
  - Consumer-packaged prepared seafood
  - HORECA (Hotel, Restaurant, and Café/Catering)
- Overseas Development
  - CoC mutual recognition
  - Overseas processors for CoC certification
  - "GSSI Recognizes" tagline



Source: MEL Japan Council



# 15. CoC Mutual Recognition



- MEL discusses with RFM in Alaska
- Align with FAO CCRF
- Third parties verification
- Producers first!
- GSSI recognized certifications
- Collaborations (CoC, shared document)
- Reasonable license fee system



## 16. New CoC Certificates in Viet Nam

- Two companies in Viet Nam have obtained CoC certificates to process salmons from Japan.





# 17. Feed Standard Development

## ● Standards

- Manufactured feed standard and fish meal/fish oil standard

## ● Objectives

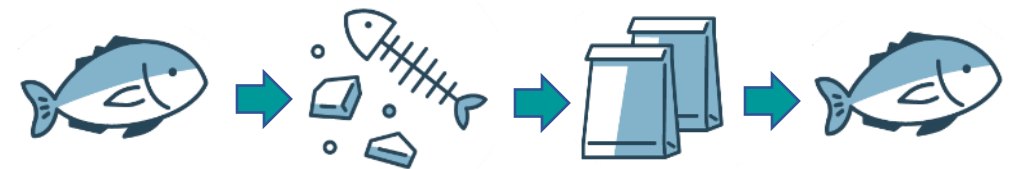
- Establish a certified supply chain from fisheries, fish meal/oil, and feed to aquaculturists
- Build a circular economy utilizing by-products/waste generated from fish processors and retailers
- Contribute to aquaculture growth strategies reflecting Japan's distinct aquaculture

## ● Standard Setting Development

- Standard setting committee formed
- Support from industry organizations and major feed manufacturers



Photo Source: Nippon Keizai Shinbun



# 18. Fisheries Management Standard (FMS)

- MEL will revise FMS
  - Consider human rights issues for technical intern trainees/foreign workers
  - Environmental issues of fishing gears and recycling



Photo from Mainichi Shimbun (Hyougo)



Photo from Okinawa Times



Photo from Ryukyu Shimpo

# **MEL certification is one of the important social systems in Japan**

## **MEL Council emphasizes five forces**

- ① Government support to fisheries (national and local)**
- ② Ethics and willingness from fisheries sector**
- ③ Ethical collaboration among SO, CB & AB**
- ④ Strong support from research institutions about fisheries science in the region**
- ⑤ Support from consumers**

**We hope to work with you in near future to develop eco-labeling in Southeast Asia**





**THANK YOU!**



# 2-4. GSSI recognized certifications



**Alaska RFM**  
漁業（米国）  
2016年7月承認



**BAP**  
養殖（米国）  
2017年10月承認



**Iceland RFM**  
漁業（アイスランド）  
2016年10月承認



**GLOBAL GAP**  
養殖（ドイツ）  
2018年4月承認



**CQA**  
養殖（アイルランド）  
2019年2月承認



**MSC**  
漁業（英国）  
2017年3月承認



**ASC**  
養殖（オランダ）  
2018年8月承認



**MEL**  
漁業・養殖（日本）  
2019年12月承認

世界 550件（約1,600万トン）

日本 18件（約50万トン）

CoC：世界 5,882件、日本 367件  
（2023年12月）

サーモンとエビでGSSI承認

世界 2062養殖場、196万トン

日本 17件（2023年12月）

漁業25件、養殖67件、CoC165件  
（合計257件）37魚種、2013年  
は44.5万トンで12%（2024年7月  
30日）

・ GSSIベンチマークツールV2.0改訂⇒2021年11月公開、2023年9月MEL継続承認



# 費用① 認証審査にかかる経費

## ● 認証有効期間

- ・ 漁業認証 5年（年次審査あり）
- ・ 養殖認証 3年（同上）
- ・ CoC認証 3年（同上）

## ● 審査費用 の目安（審査機関に支払う）

- ・ 本審査（初回審査費用）

漁業認証	85万円～
養殖認証	70万円～
流通加工認証	35万円～
- ・ 年次審査（毎年） 初回審査費用 × 60%程度
- ・ 更新審査（3年／5年） 初回審査費用 × 80%程度

認証審査にかかる費用は、業態や規模（審査対象施設数）によって異なりますので、二つの認証機関にお尋ねください。

（公社）日本水産資源保護協会 <http://fish-jfrca.jp/04/ecolabel.html>  
電話：03-6680-4277 メール：mel-info@fish-jfrca.jp

（公財）海洋生物環境研究所 中央研究所 <https://www.kaiseiken.or.jp/>  
電話：0470-68-5111 メール：cb-mel@kaiseiken.or.jp

# 費用② ロゴマーク使用許諾料

## ● MEL協議会とのロゴマーク使用契約

- ・ 審査機関から認証決定を受けた後、MEL協議会と**ロゴマーク使用契約**を締結します（「ロゴマーク使用・管理規定」に基づく）。
- ・ 締結後、商品や広報などにロゴマークを表示することができます。

## ● 3段階のロゴマーク使用許諾料（MEL協議会に支払う）

認 証 種 別		生産段階認証 【 漁 業 】	生産段階認証 【 養 殖 】	流通加工段階認証 【 C o C 】
分類の基準となる指標		使用動力船の合計トン数	従 業 員 数	取扱い金額（売上高）
ロゴマーク 使用許諾料  (年額・税抜)	3万円	10トン未満 (含む、無動力船・非使用)	10人未満	単体100億円未満 または、連結200億円未満
	5万円	10～1000トン未満	10～100人未満	単体100～300億円未満 または、 連結200～500億円未満
	10万円	1000トン以上	100人以上	単体300億円以上 または、連結500億円以上