Food and Agriculture Organization of the United Nations

REVIEW OF THE STATE OF WORLD MARINE FISHERY RESOURCES & HOW IT RELATES TO TRADE

Achieving SDG 14.4 for a sustainable future

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Bangkok

22nd October, 2025 SEAFOOD EXPO, St. Petersburgh, RUSSIA

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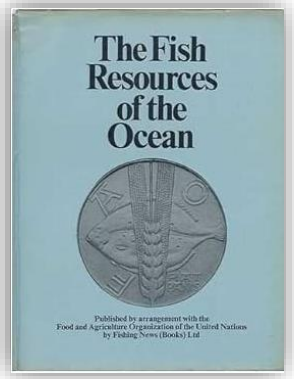
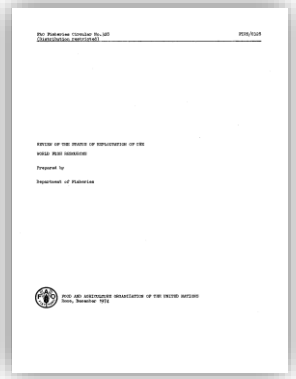
1971

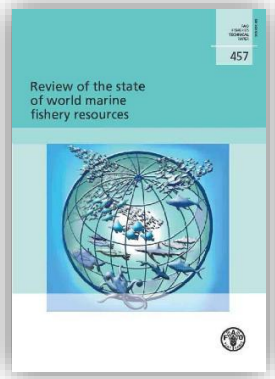


Reference list 146

1974



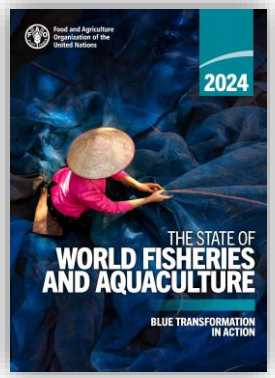
2005



2011

Reference list 441

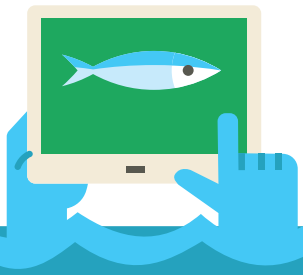
2024



Reference list 531

2025

Reference list 2570



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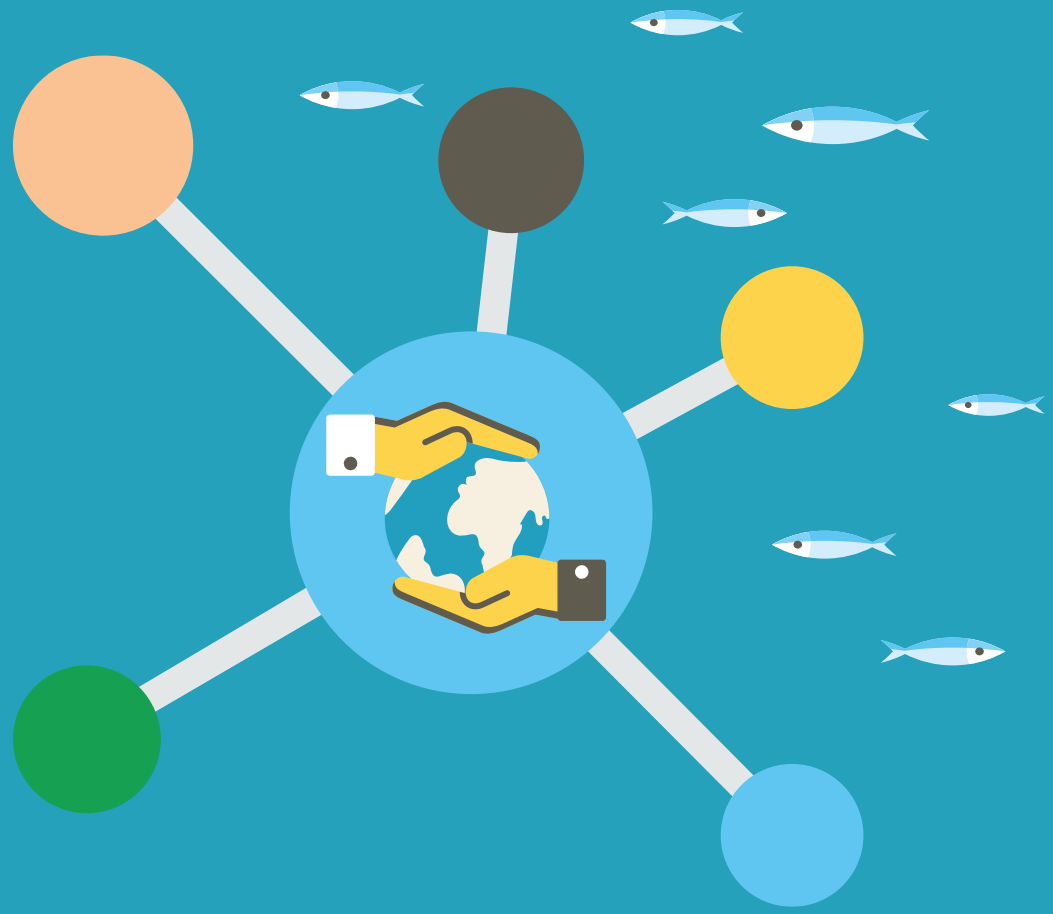
UPDATED METHODOLOGY

IMPROVED RESOLUTION AND TRANSPARENCY



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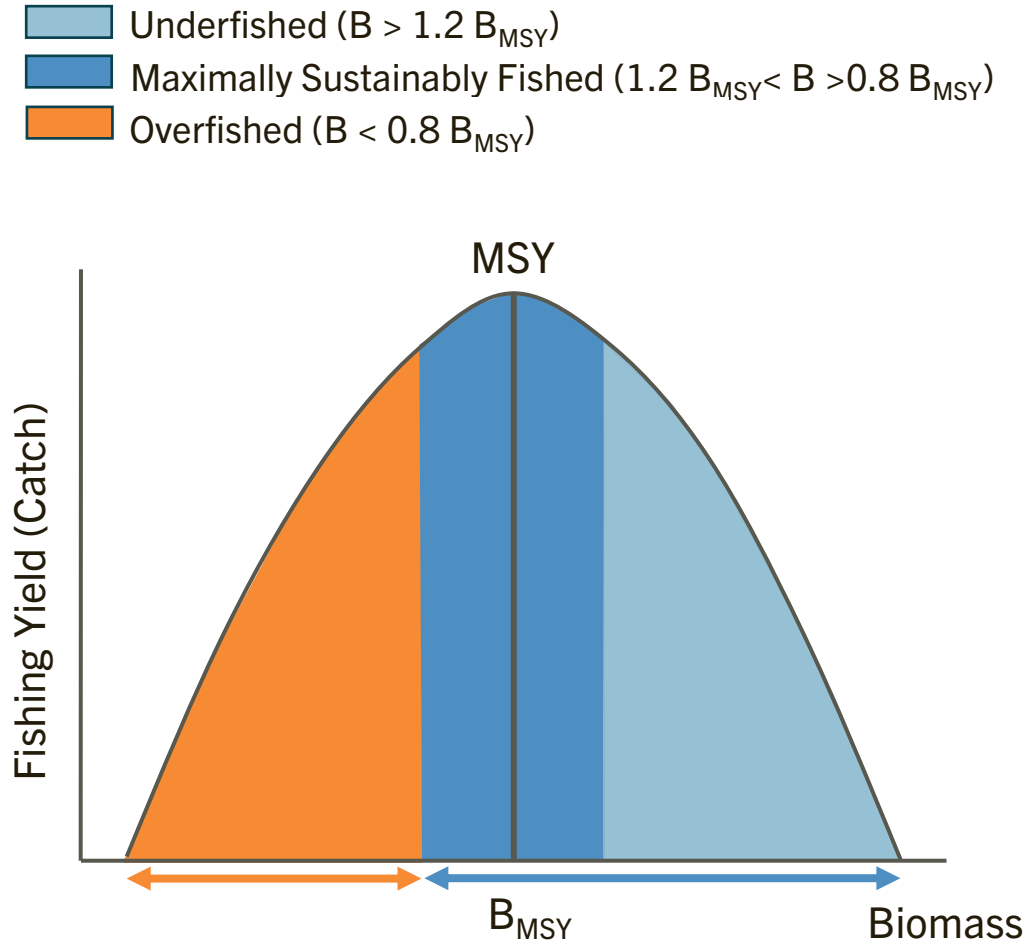
CLASSIFICATION OF GLOBAL STOCKS (1974-2021)



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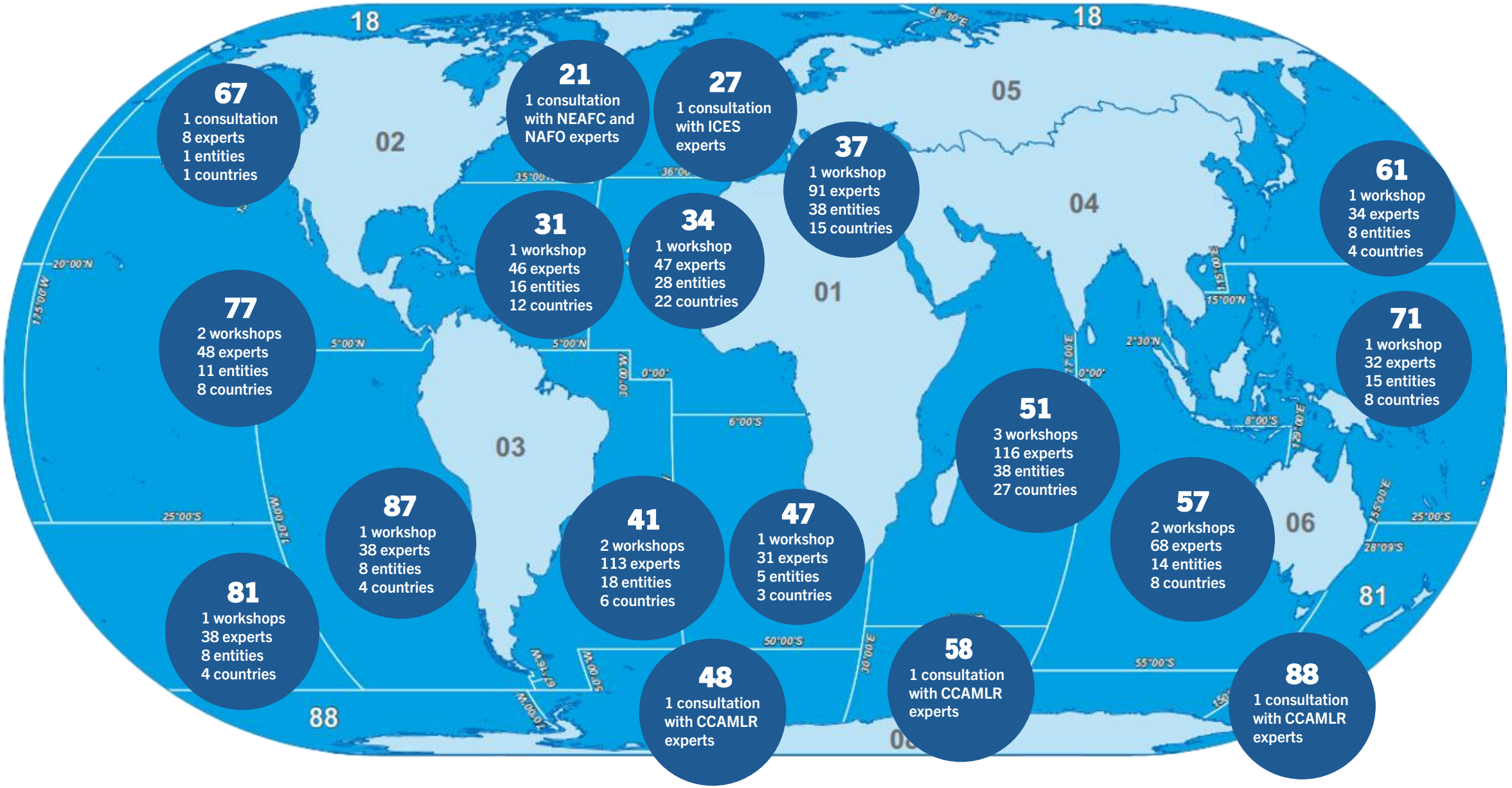
19 WORKSHOPS AND CONSULTATIONS
650 EXPERTS | 200 ENTITIES | 90 COUNTRIES



FAO UPDATED METHODOLOGY

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SOFIA Global Fish Stocks Status Monitoring

A synoptic evaluation of what a regions fish stock status maybe, as well as an overall indicator of how the global state of fish stocks is progressing with respect to MSY-based reference points.

Improvement should include: (1) better/updated coverage of global fisheries; (2) more accurate / precise assessments; and (3) more transparent frameworks and reports.

DATA

ASSESSMENT

REPORTING

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Elements necessary to produce current estimate

Indicator: % stocks fished at biologically sustainable levels

Process: 4 steps

1. Select sample of stocks (reference list of stocks)
2. Collect/collate data for selected stocks
3. Apply methodology for stock status classification
4. Compute indicator (% stocks at biologically sustainable levels)

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TIERS IN ASSESSMENTS

DATA RICH
INCREASED COMPLEXITY

Tier 1

Stocks with a formal assessment considered scientifically sound & reliable: Status derived directly from **assessment bodies.**

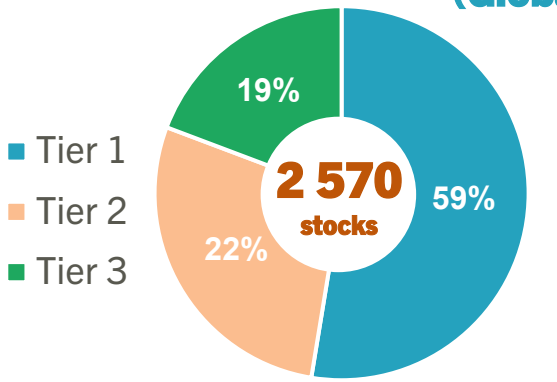
Tier 2

Stocks with catch data and other supporting information such as an index of abundance or effort. Status inferred by **surplus-production type models.**

Tier 3

Stocks with some data, knowledge, and information available, combined with a peer-review process. Status is determined using a **weight-of-evidence approach.**

Assessed stocks by Tiers (Global analysis)



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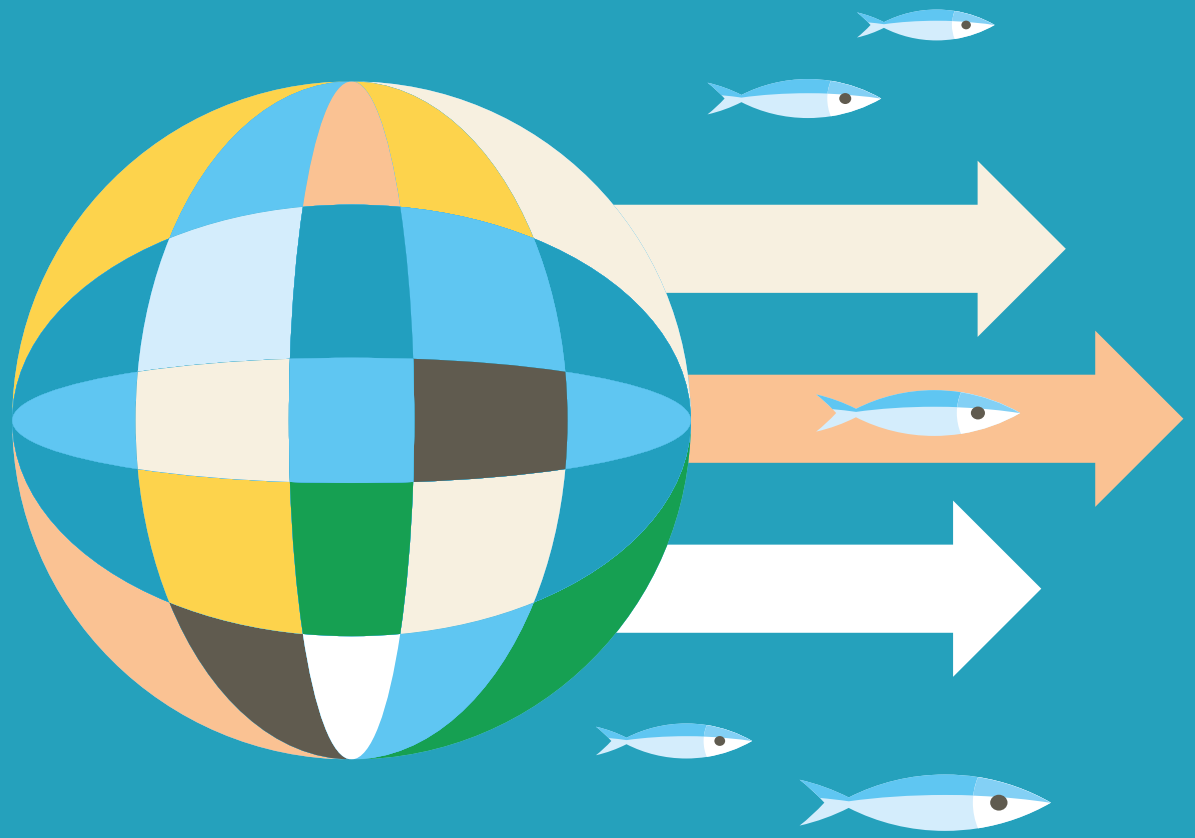
GLOBAL OVERVIEW



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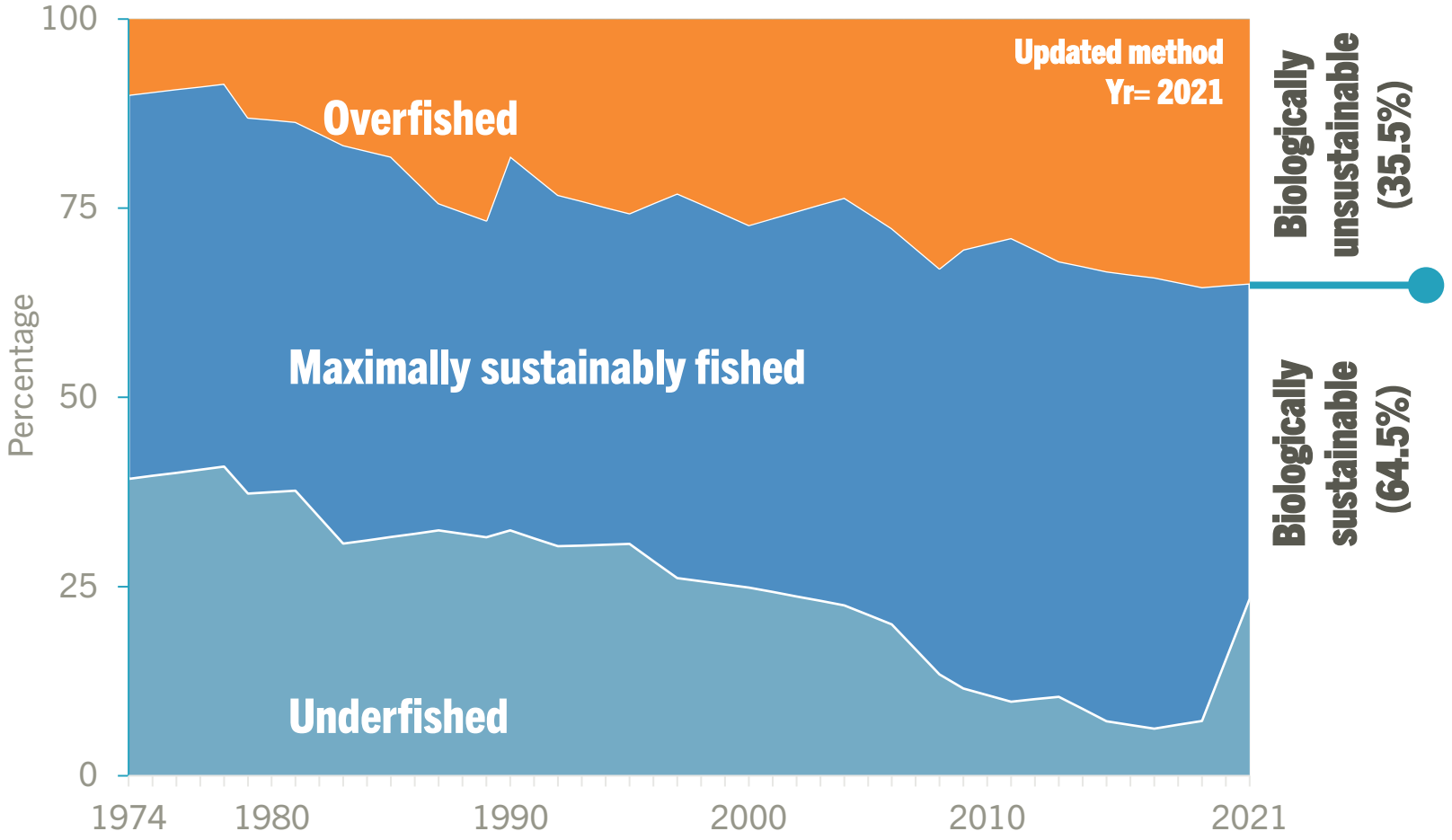
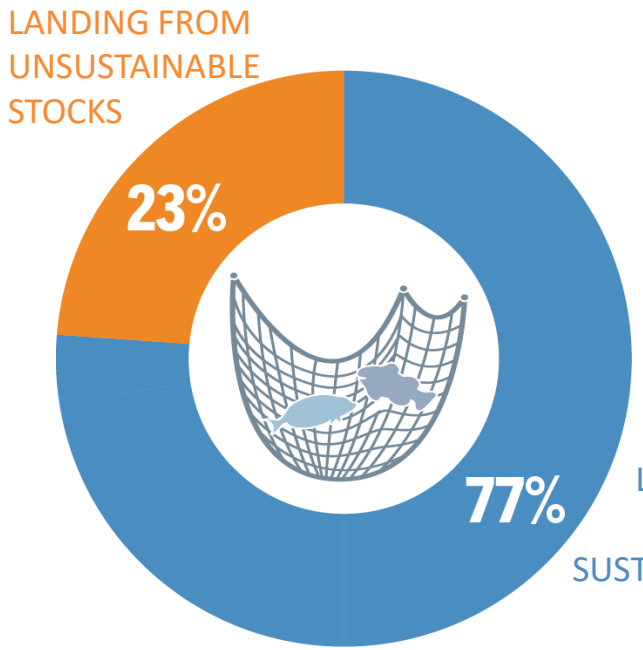
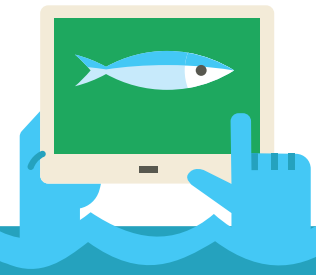
GLOBAL TRENDS IN THE STATE OF THE WORLD'S MARINE FISH STOCKS

1974-2021



BY VOLUME





UNOC3 – Nice, France | 9 June – 13 June 2025

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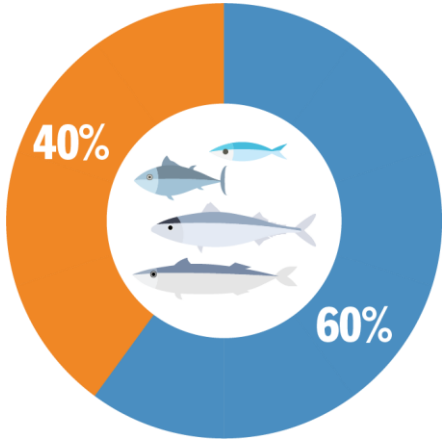
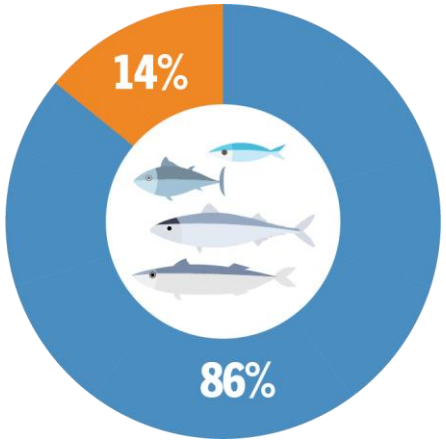
SUSTAINABILITY OF KEY COMMERCIAL SPECIES

TOP-10 SPECIES

BY NUMBER

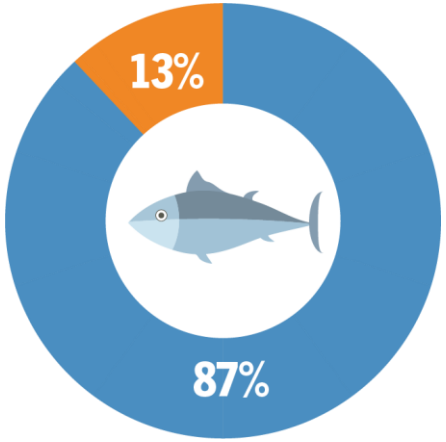


BY VOLUME

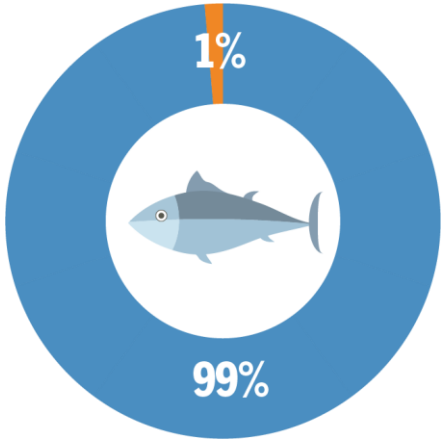


TOP COMERCIAL TUNAS

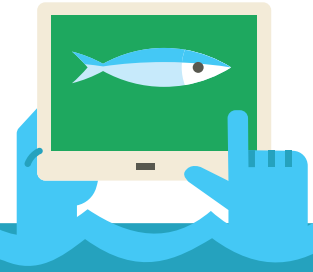
BY NUMBER



BY VOLUME



Stock status: Biologically sustainable | Biologically unsustainable



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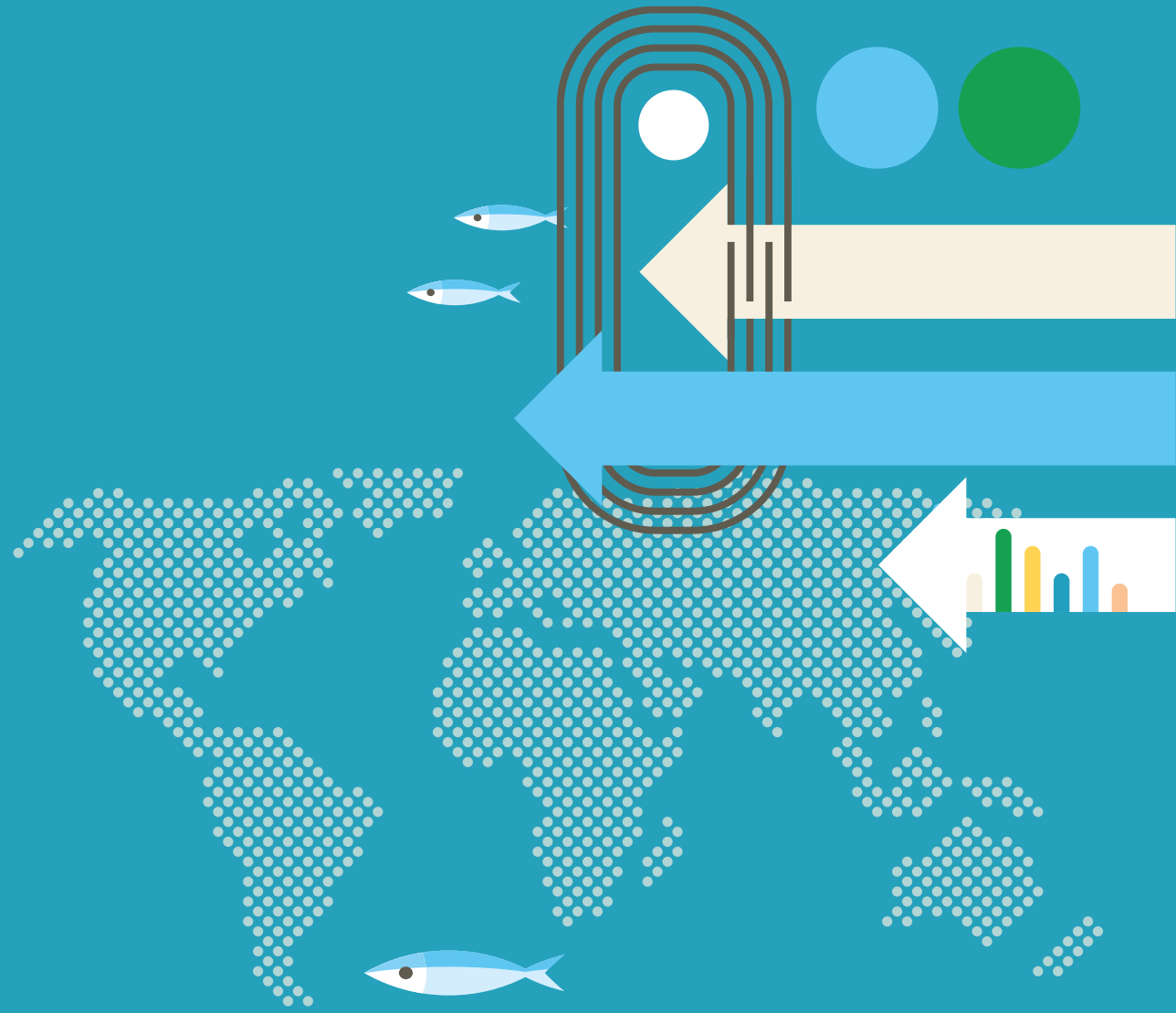
REGIONAL OVERVIEW



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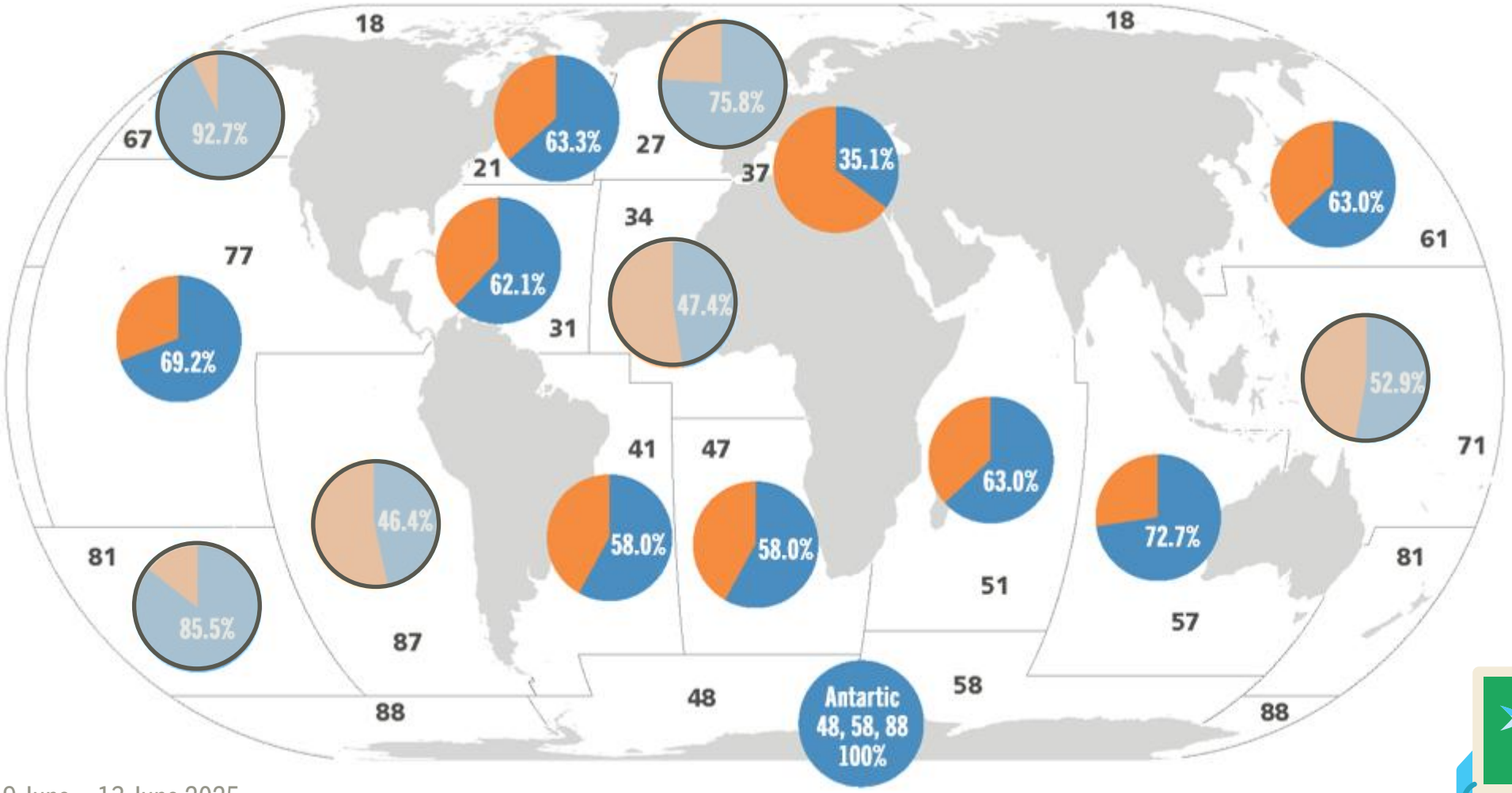
STATE OF MARINE FISH STOCKS BY FAO MAJOR FISHING AREA

2021

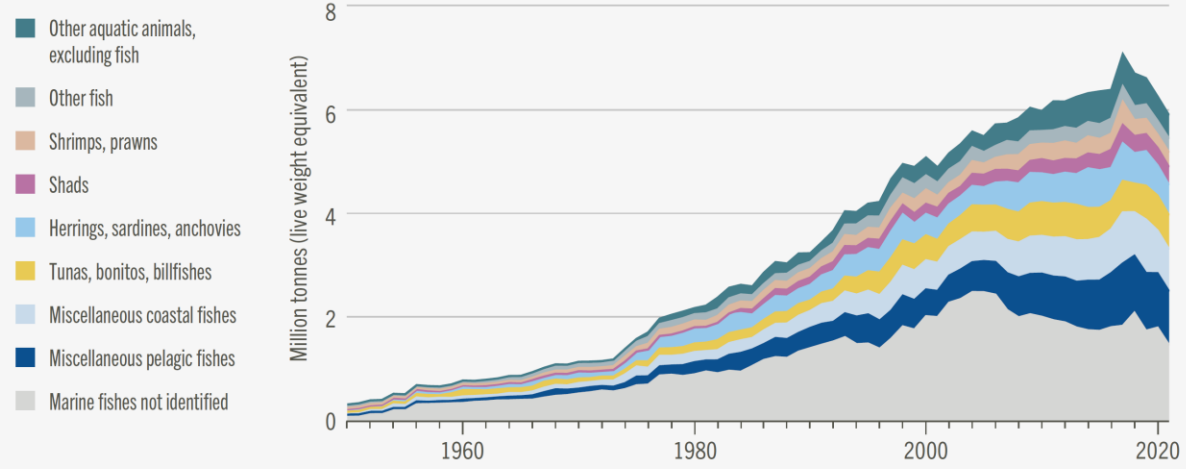
Stock status:

- Biologically sustainable
- Biologically unsustainable



LANDINGS IN ASIA PACIFIC REGION

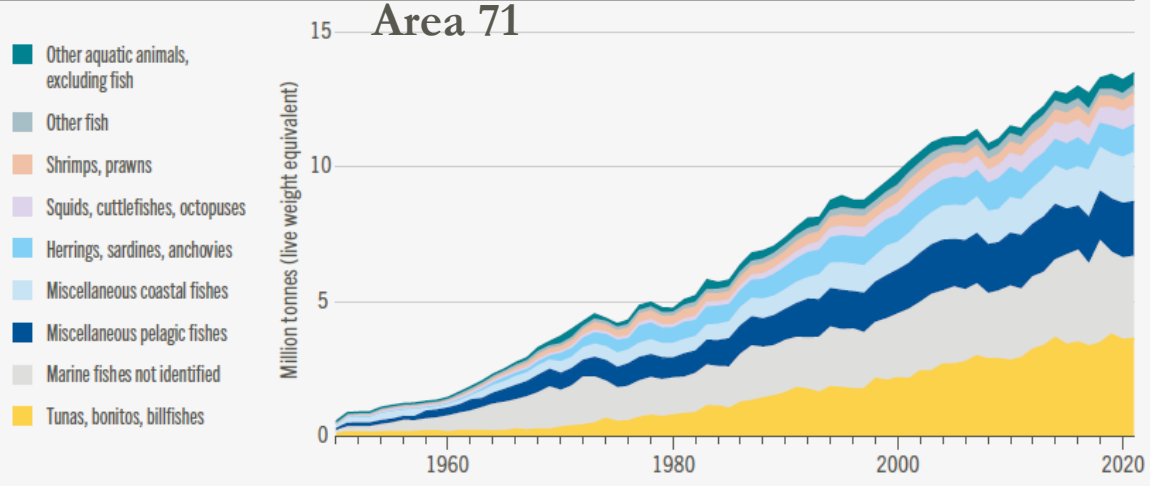
Area 57



Area 71

SPECIES COMPOSITION

FAO data, 1950–2021

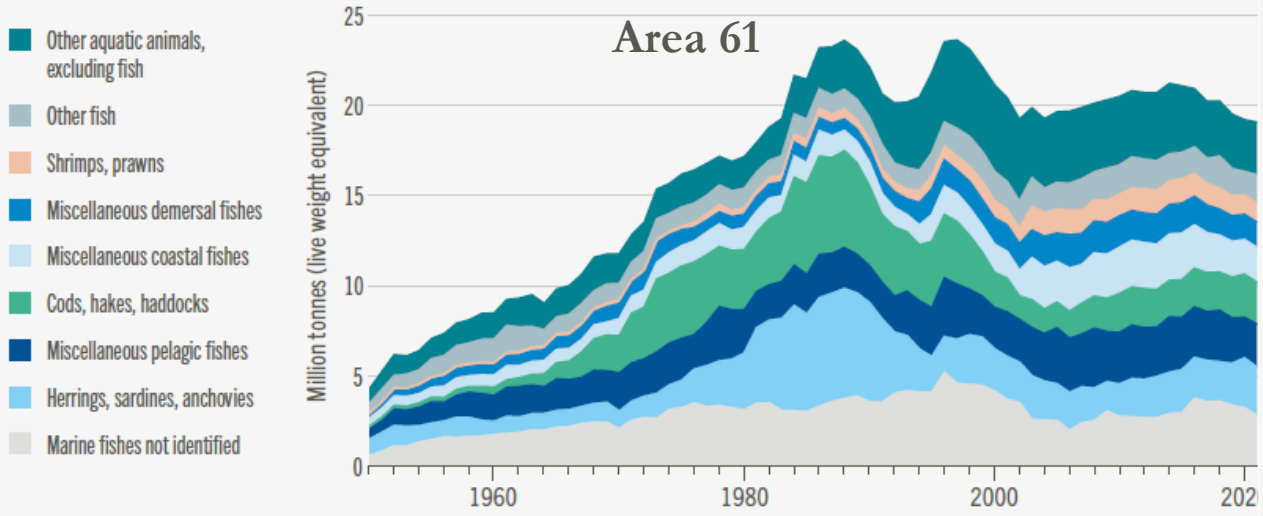


Data refer to aquatic animals, excluding aquatic mammals, crocodiles, alligators, caimans, sponges, corals, pearls and algae.

Area 61

SPECIES COMPOSITION

FAO data, 1950–2021

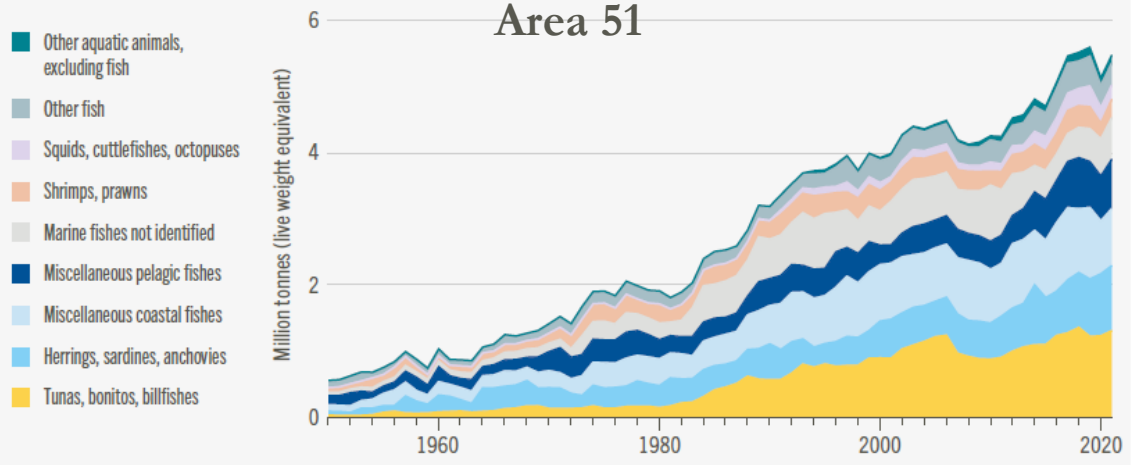


Data refer to aquatic animals, excluding aquatic mammals, crocodiles, alligators, caimans, sponges, corals, pearls and algae.

Area 51

SPECIES COMPOSITION

FAO data, 1950–2021



Data refer to aquatic animals, excluding aquatic mammals, crocodiles, alligators, caimans, sponges, corals, pearls and algae.

THE HUMAN ELEMENT/FOOD SECURITY/LIVELIHOOD ISSUES

Area 61

FLEET SIZE AND COMPOSITION *FAO estimate, 2021*

Active vessels ~448 000

Non-motorized: *Artisanal*

Motorized: *<12 m: Artisanal and industrial*; *12–24 m: Artisanal and industrial*; *>24 m: Industrial*

Non-motorized: 2%
Motorized: 98%

EMPLOYMENT *FAO estimate, 2021*

Fishers (primary sector / fishing) ~2.6 million

Male: 6%
Unspecified: 93%
Female: 0%

= 100 000 PEOPLE

Area 57

FLEET SIZE AND COMPOSITION *FAO estimate, 2021*

Active vessels ~522 000

Non-motorized: *Artisanal*

Motorized: *<12 m: Artisanal and industrial*; *12–24 m: Artisanal and industrial*; *>24 m: Industrial*

Non-motorized: 22%
Motorized: 78%

EMPLOYMENT *FAO estimate, 2021*

Fishers (primary sector / fishing) ~3.5 million

Male: 72%
Unspecified: 17%
Female: 10%

= 100 000 PEOPLE

Area 71

FLEET SIZE AND COMPOSITION *FAO estimate, 2021*

Active vessels ~1.8 million

Non-motorized: *Artisanal*

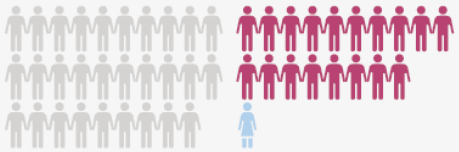
Motorized: *<12 m: Artisanal and industrial*; *12–24 m: Artisanal and industrial*; *>24 m: Industrial*

Non-motorized: 26%
Motorized: 74%

EMPLOYMENT *FAO estimate, 2021*

Fishers (primary sector / fishing) ~4.8 million

Male: 38%
Unspecified: 60%
Female: 2%



= 100 000 PEOPLE

Area 51

FLEET SIZE AND COMPOSITION *FAO estimate, 2021*

Active vessels ~407 000

Non-motorized: *Artisanal*

Motorized: *<12 m: Artisanal and industrial*; *12–24 m: Artisanal and industrial*; *>24 m: Industrial*

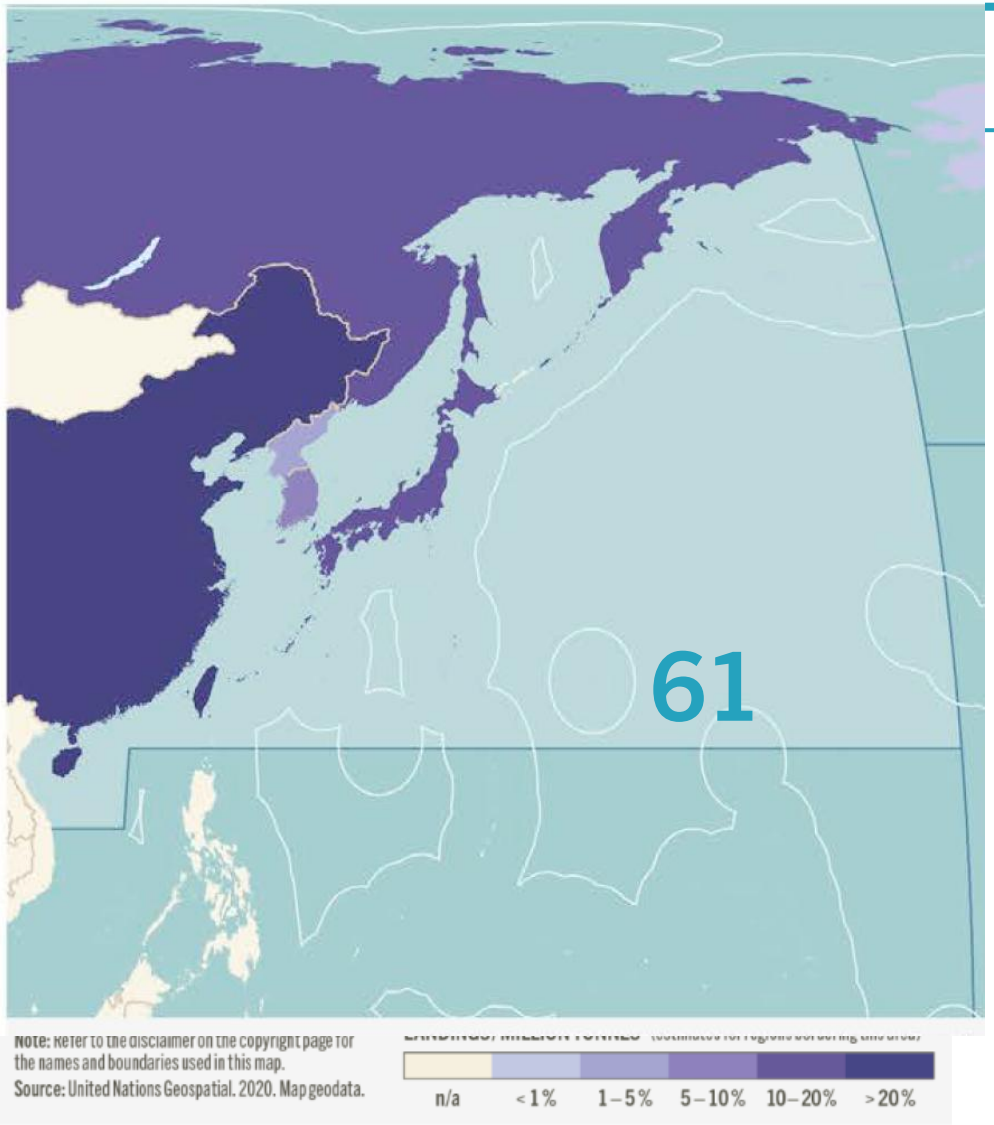
Non-motorized: 39%
Motorized: 61%

EMPLOYMENT *FAO estimate, 2021*

Fishers (primary sector / fishing) ~2.9 million

Male: 65%
Unspecified: 16%
Female: 19%

= 100 000 PEOPLE



STATE OF THE STOCKS AREA 61

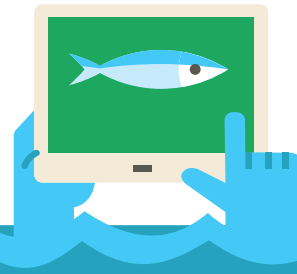
FAO estimates 2021

Tier	No. Stocks	Sustainable (%)	Unsustainable (%)	Landings from Sust. Stocks (%)
1	56	57.1	42.9	
2	36	72.2	27.8	
AVERAGE	**92**	**63**	**37**	**73.7**

→ Tier 1 worse off

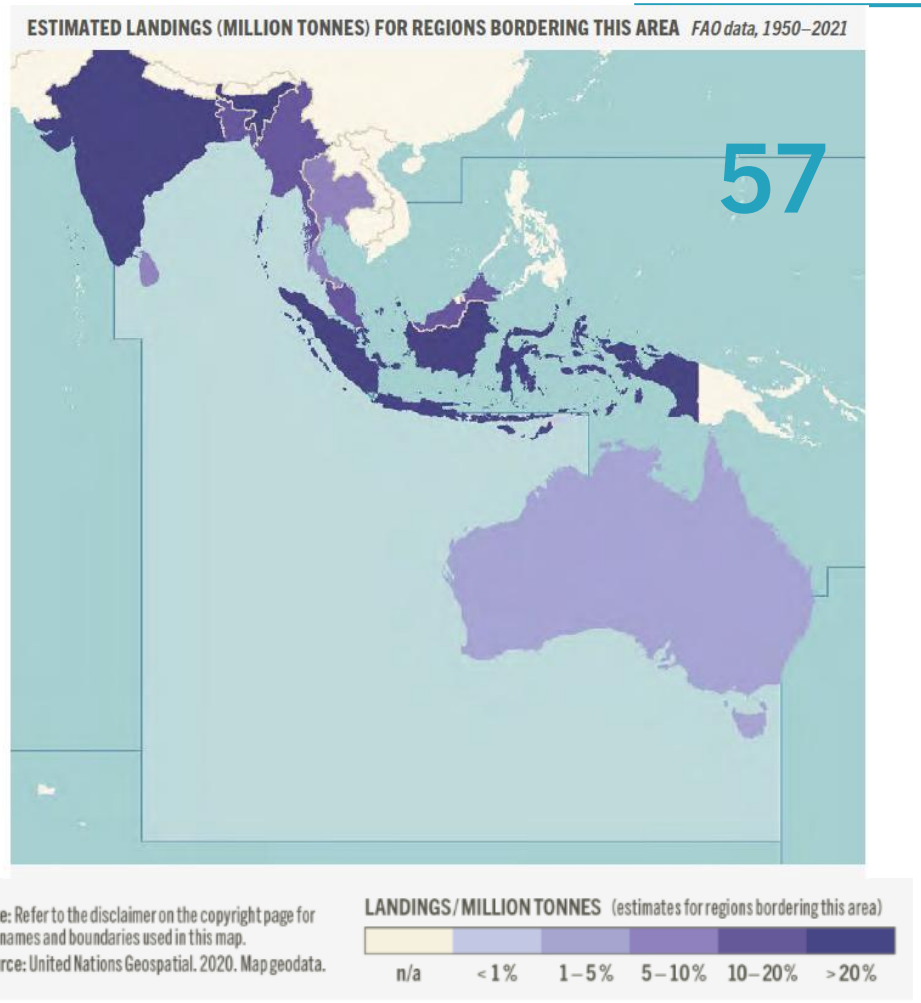
→ <50% of landings from sustainable stocks

→ 36.5% of landings not assessed



STATE OF THE STOCKS AREA 57

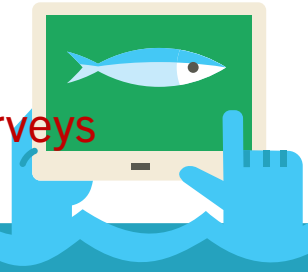
FAO estimates 2021



Tier	No. Stocks	Sustainable (%)	Unsustainable (%)	Landings from Sust. Stocks (%)
1	193	63.6	36.4	
2	96	89.6	10.4	
3	19	84.2	15.8	
AVERAGE	**308**	**72.7**	**27.3**	**82.9**

→ Tier 1 worst – No management
→ Most stocks are OK in Tier 2 and 3
→ >80% of landings from sustainable stocks

→ 32.4 % of landings not assessed
→ Biased high, reality evident from Myanmar surveys



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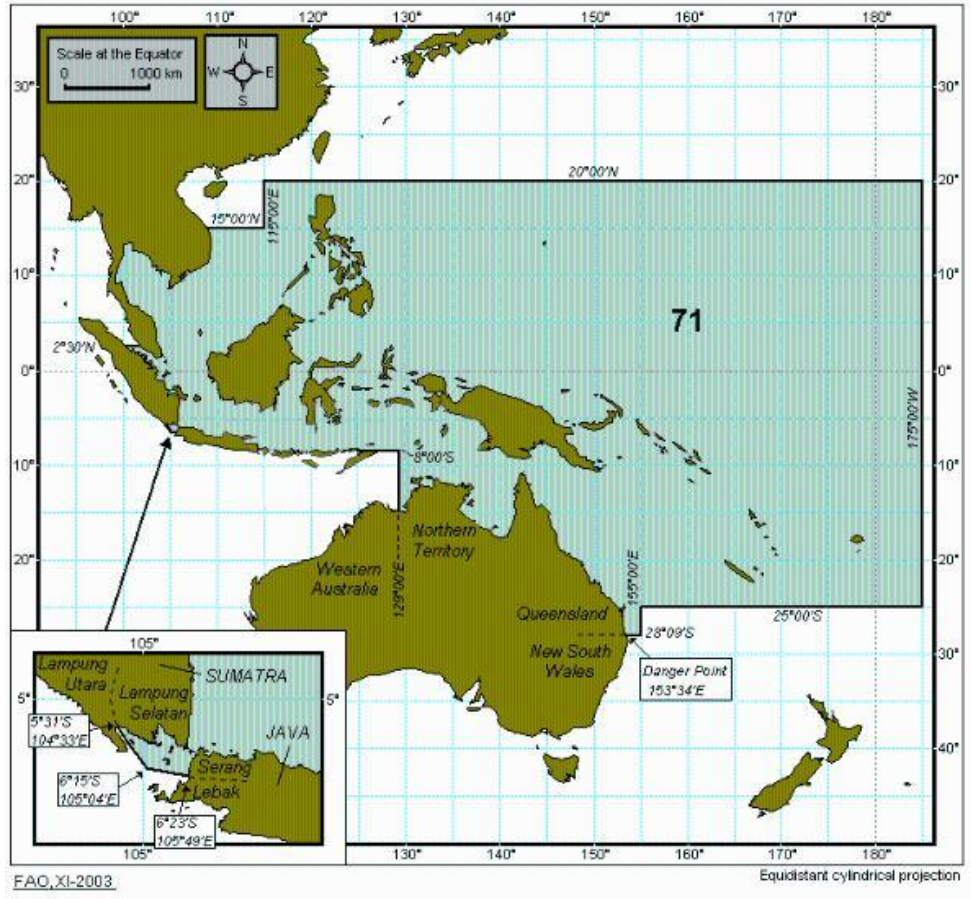
State of Stocks Area 71

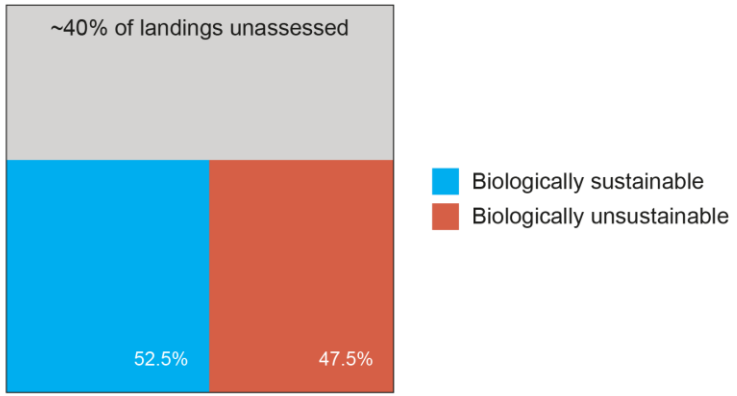


Tier	No. Stocks	Sustainable (%)	Unsustainable (%)
1	24	83.3	16.7
2	51	29.4	70.6
3	190	54.7	45.3
AVERAGE	**265**	**52.5**	**47.5**

2021 Data

STOCK STATUS (reported landings)

Updated methodology



2021 Data

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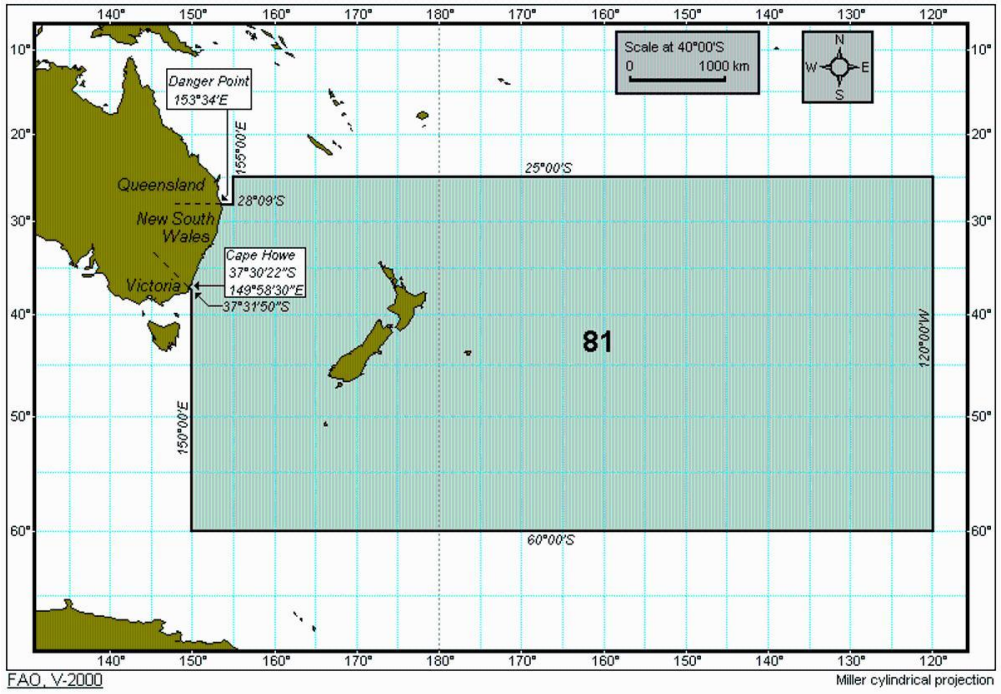
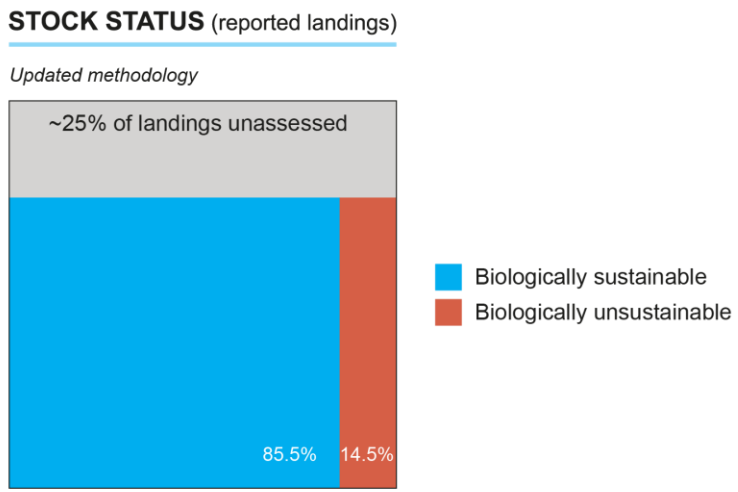
State of Stocks Area 81



Tier	No. Stocks	Sustainable (%)	Unsustainable (%)
1	71	84.7	15.5
2	17	76.5	23.5
3	77	88.3	11.7
AVERAGE	166	85.5	14.5

2021 Data



2021 Data

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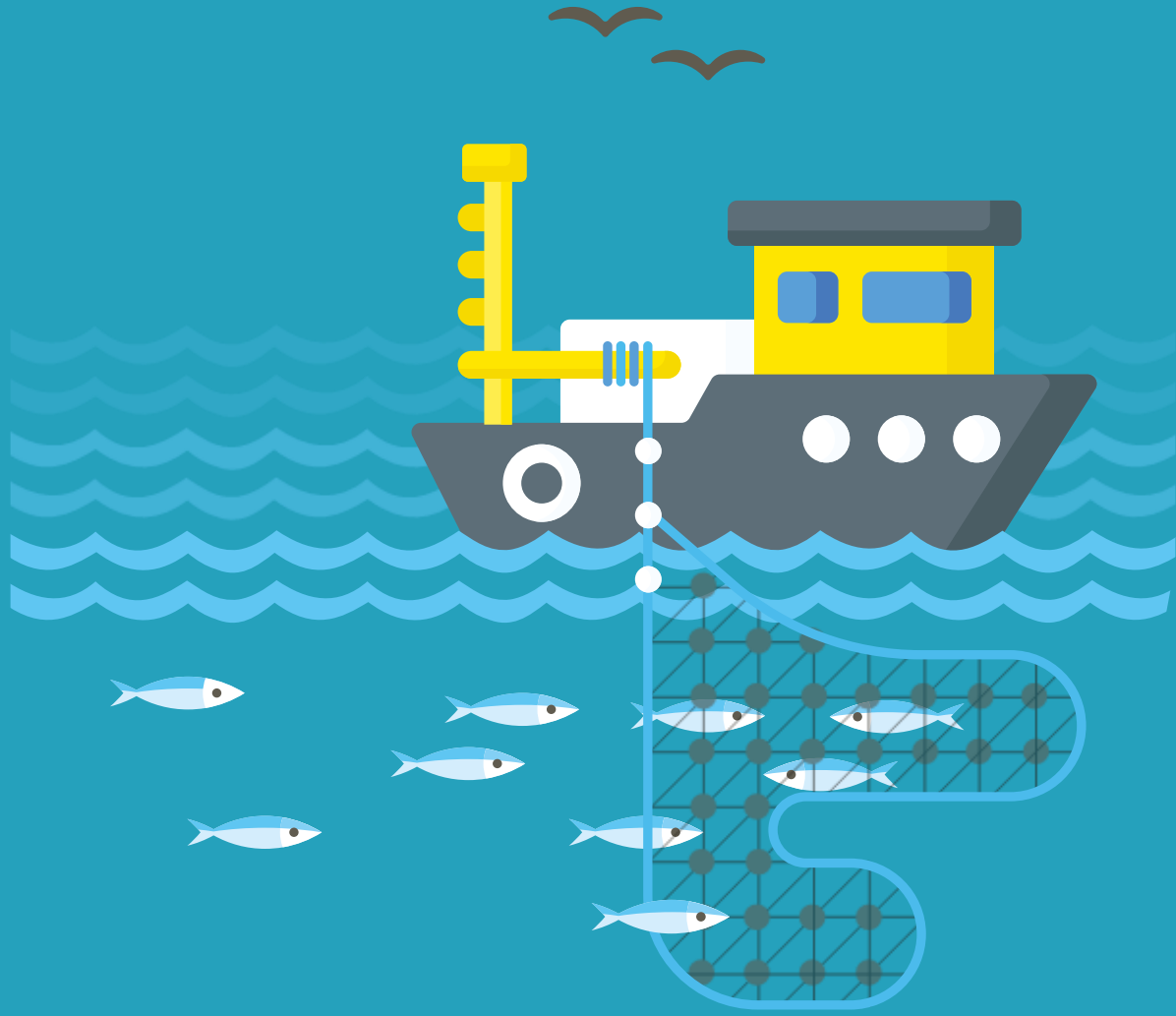
TAKE HOME MESSAGES



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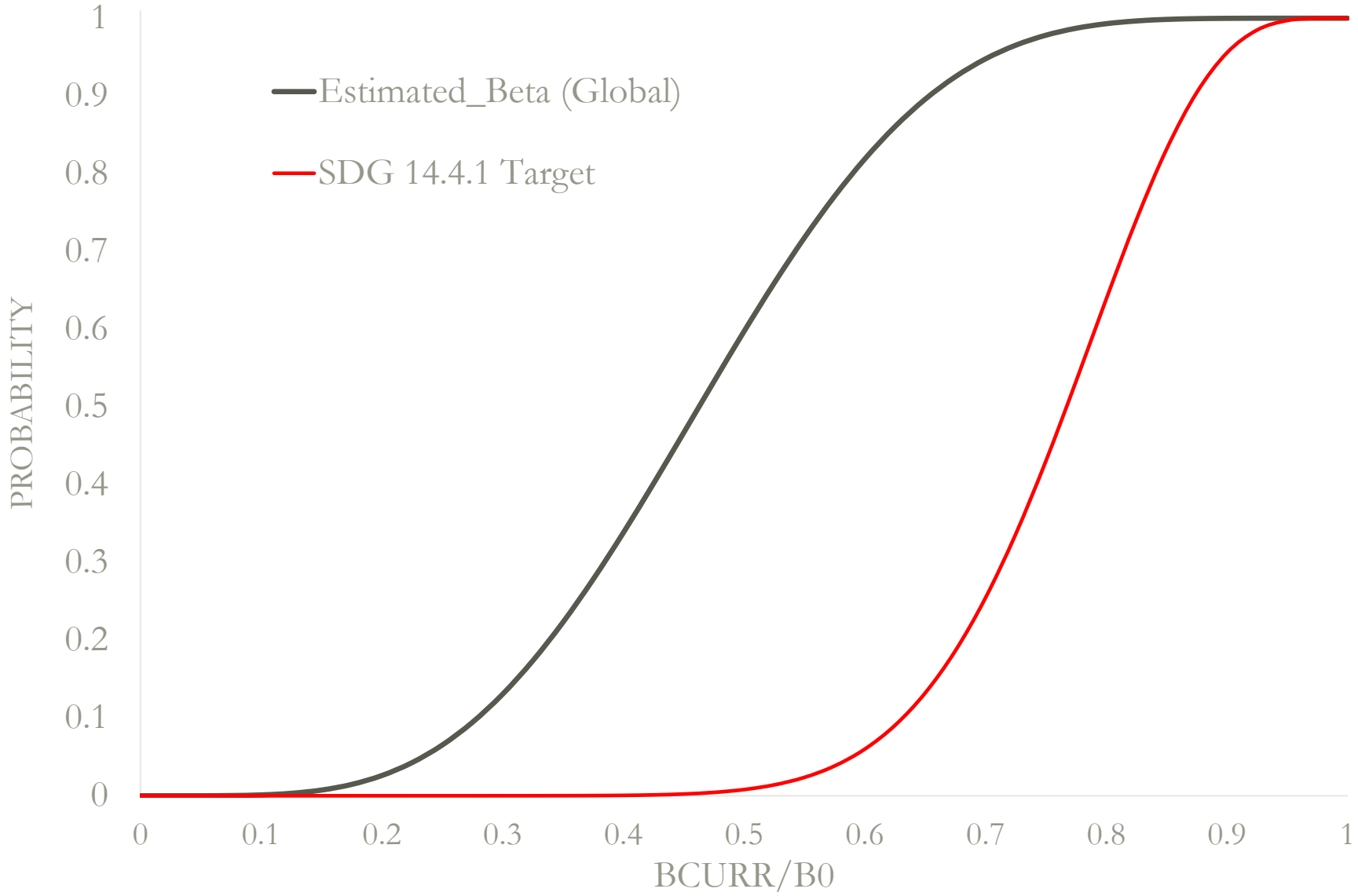
The gist of all Areas and ~2570 stocks % below $\mathbf{0.4B_0}$



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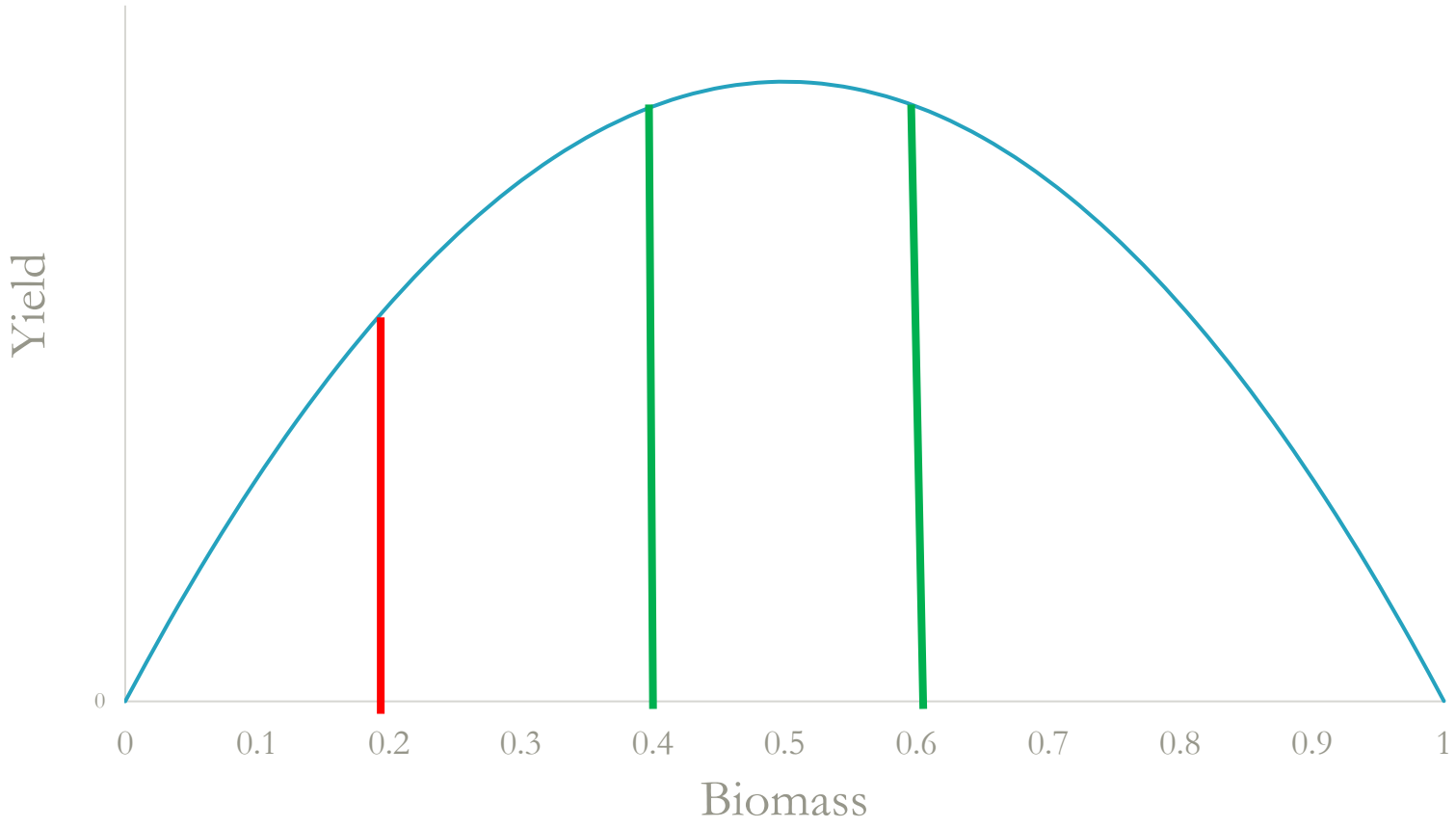

- A majority are above or around the target RP.
- Minority are below Target RP
- 3% are below Limit RP
- Loss in Yield can be significant in some areas.
- In general though we are optimizing goals for food security.
- If we change the targets to SDG targets; we will invariably lose yield due to underfishing; contrary to Food Security needs.

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Some take home messages on differences

- The difference between the estimates of overfishing between the update and old method is marginal (0-15% dependent on area).
- However, with the new baselines being added more stocks are in the underfished category (bycatch stocks that are managed and new stocks that are new fisheries that are largely resilient species (small pelagic stocks).
- SDG targets are largely unachievable and are in contrary to food security goals (MSY and precautionary approach targets).
- Unless we have perfect management (impossible in a natural system with large Process error); we will invariably lose yield if we push populations to the right-hand side of the CDF.

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TAKE HOME MESSAGES

Blue Transformation in action

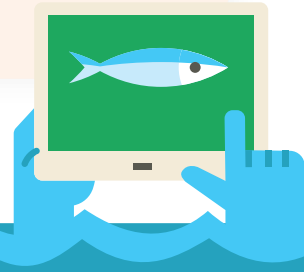
FAO's 2025 Review is the most **comprehensive and participatory global assessment** of marine fish stocks ever conducted, reflecting advances in science, technology, and inclusive knowledge, and embodying FAO's commitment to **Blue Transformation**

Effective fisheries management

As global fisheries assessment and management tools evolve, **effective management remains the best conservation measure.** FAO is ready to support countries and promote strong regional and international cooperation to ensure the **long-term sustainability of marine resources**

Food security, nutrition and livelihoods

Marine fisheries are critical for global **food security, nutrition and economic development**, particularly for vulnerable communities, and must be managed sustainably to maintain their **vital contribution to ending hunger and poverty**



How does this relate to Trade?

Key Statistics on Fisheries and Aquaculture Sector in 2022

223.2 million tonnes in 2022, fisheries and aquaculture production reached an all-time high.

USD 472 billion Record value of trade in fisheries & aquaculture shows its global economic impact.

20.7 Kg average annual availability of aquatic animal foods per capita indicates its global dietary importance

62 million persons employed globally in primary production alone

Aquatic products continue to be one of the most traded food commodities, involving over 230 countries and territories

Interlinking Environment, Trade, and Social Inclusion in Fisheries & Aquaculture

Stable jobs | *Long-term growth* | *Reliable protein sources*

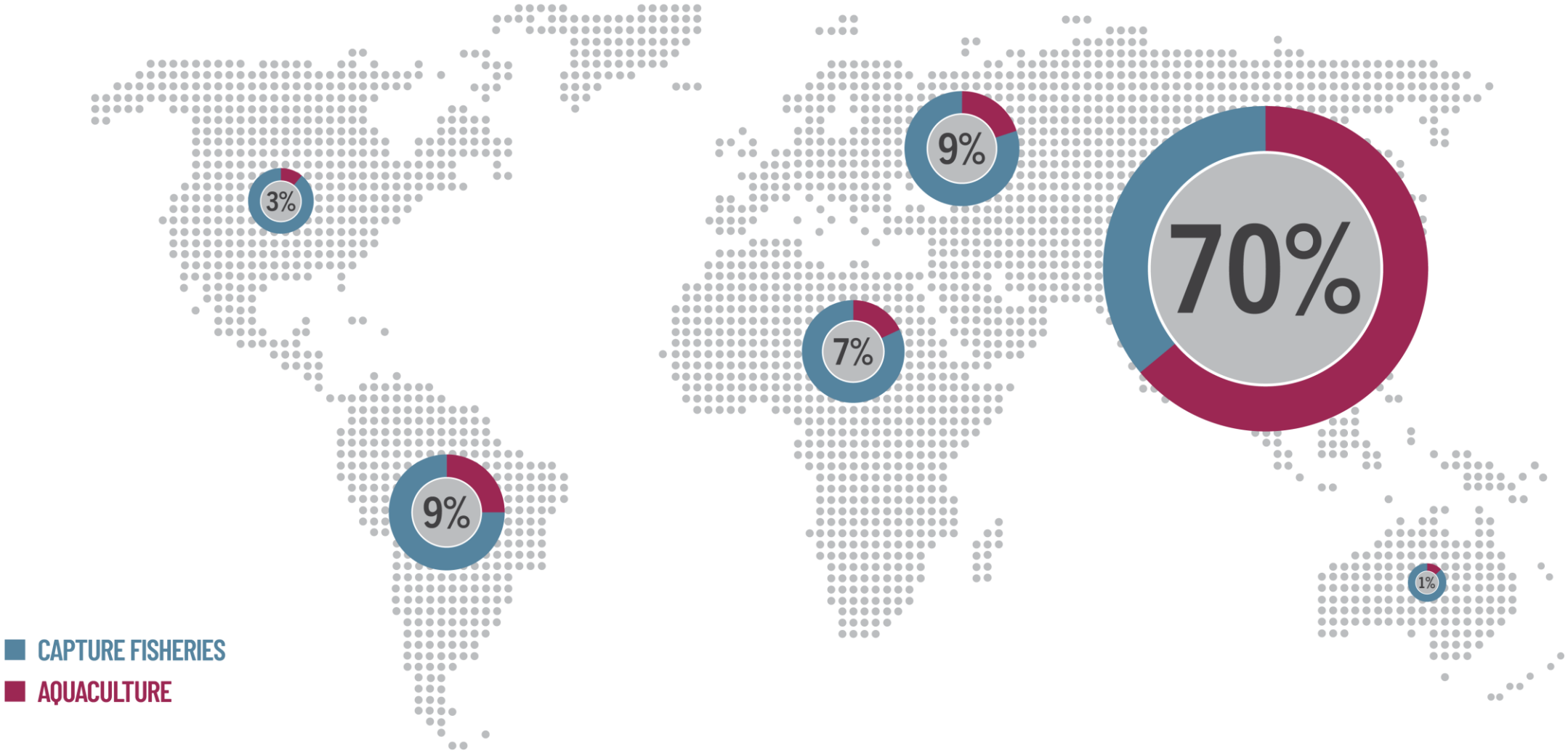
Healthy marine ecosystems

Balancing Economic ambition with ecological limits.

FOOD SECURITY

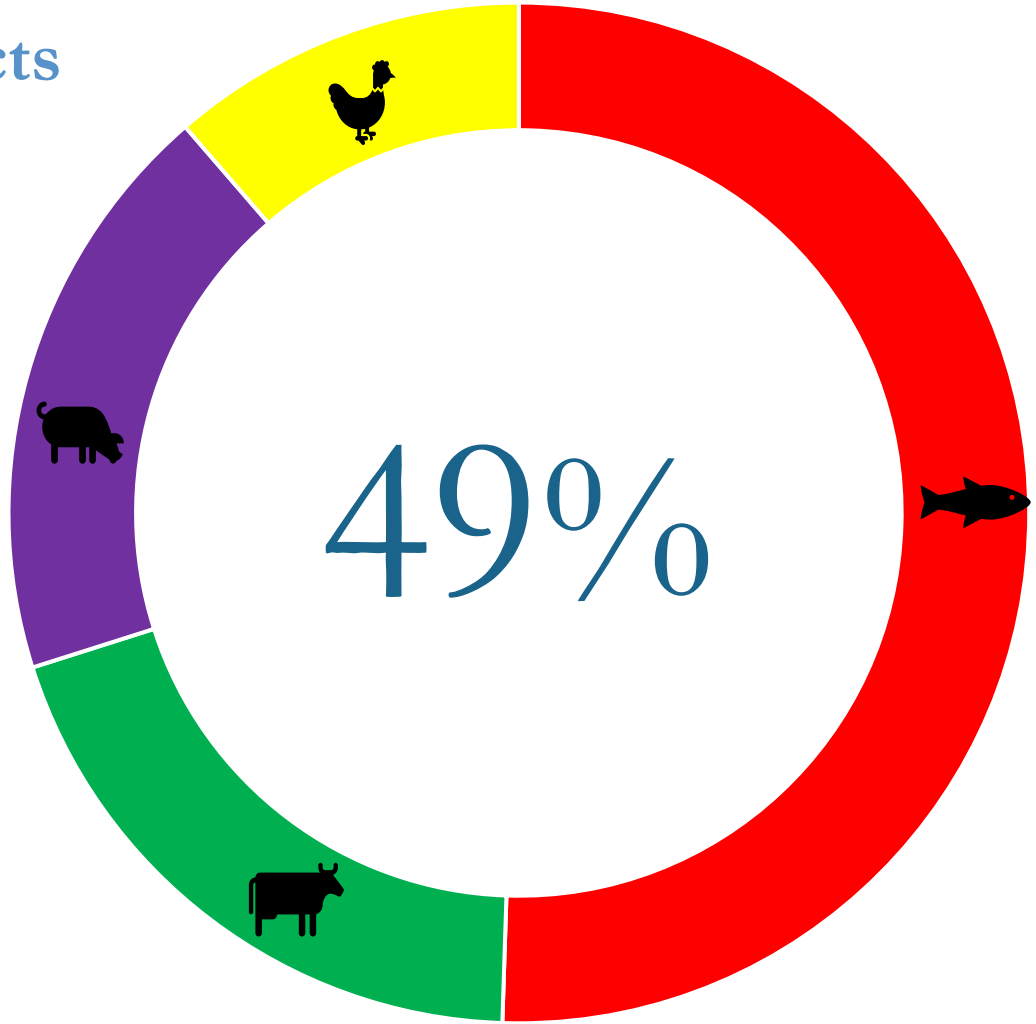
Sustainable management isn't just conservation—it's an investment in the sector's resilience.

World Aquatic Animal Production By Region In 2022



Comparing Trade of Aquatic Products (Global Exports in USD) with other Animals

Trade in Aquatic Products comprises
49% of the total traded animals



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TO ACCESS THE REPORT

THANK YOU!