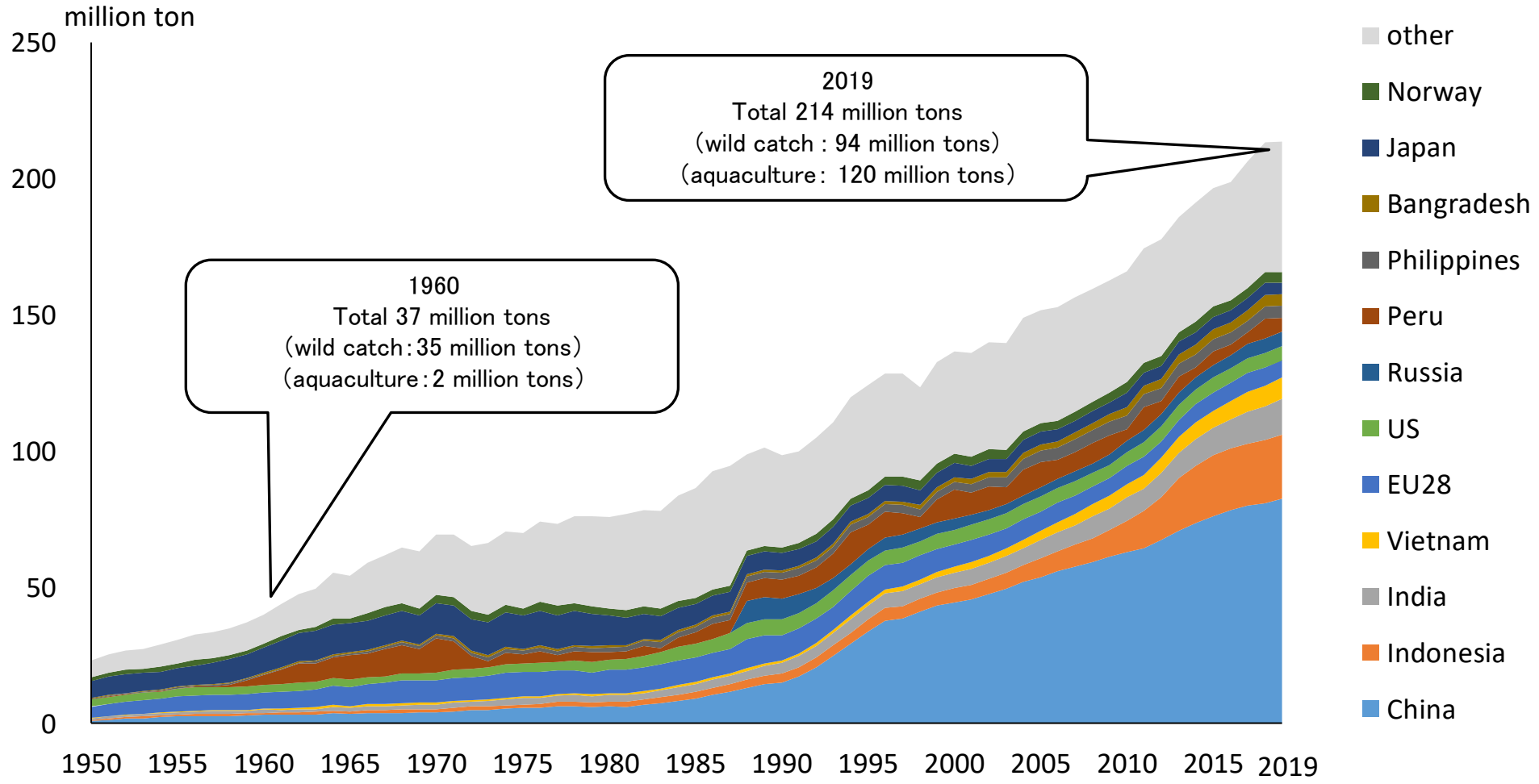
Fisheries Resource Management in Japan
- the Importance of Scientific Evidence -

June 2024

MAFF (Ministry of Agriculture, Forestry and Fisheries of JAPAN)

Global Fishery and Aquaculture Production

- Global capture fishery production is 94 billion tons in 2019, which seems to have peaked considering the available fish stocks/resources.
- In contrast, aquaculture production has been growing recently, now accounting for over the half of total production.

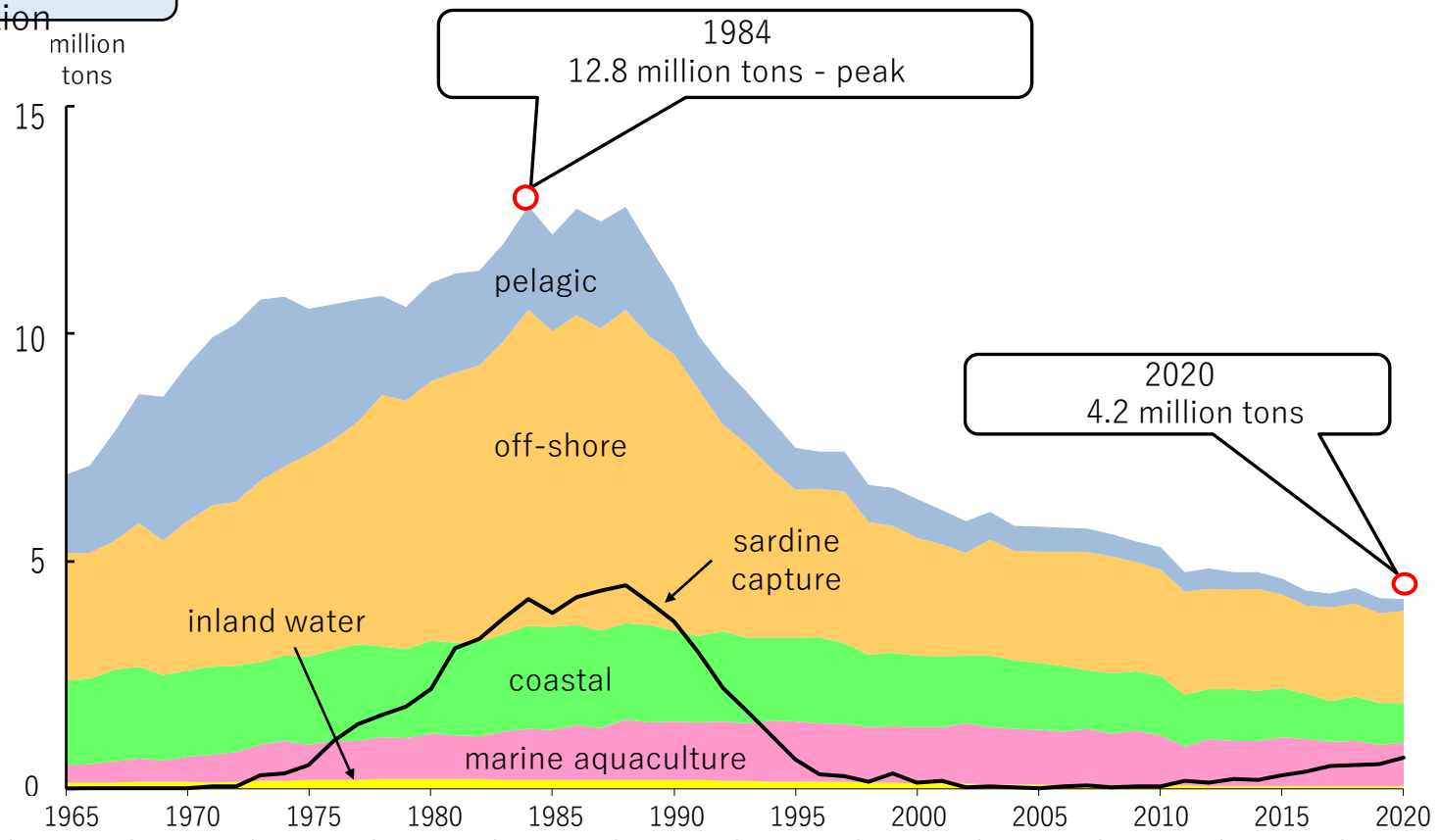


Source ：FAO「Fishstat」, MAFF

Capture and Aquaculture Production in Japan

- Japan's fisheries had expanded its fishing ground 1940s to 1980s, from coastal to offshore and beyond.
- Peaked in the 1984, Japan's fishery production has been declining.

Fishery and Aquaculture Production



Source: MAFF

Japan's Fisheries Management

- Japan's fisheries management has been implemented, taking into account both horizontal and vertical utilization of the sea.
- In this type of resource management, collaboration with all stakeholders, in particular fishermen's participation is key.

Image - horizontal utilization

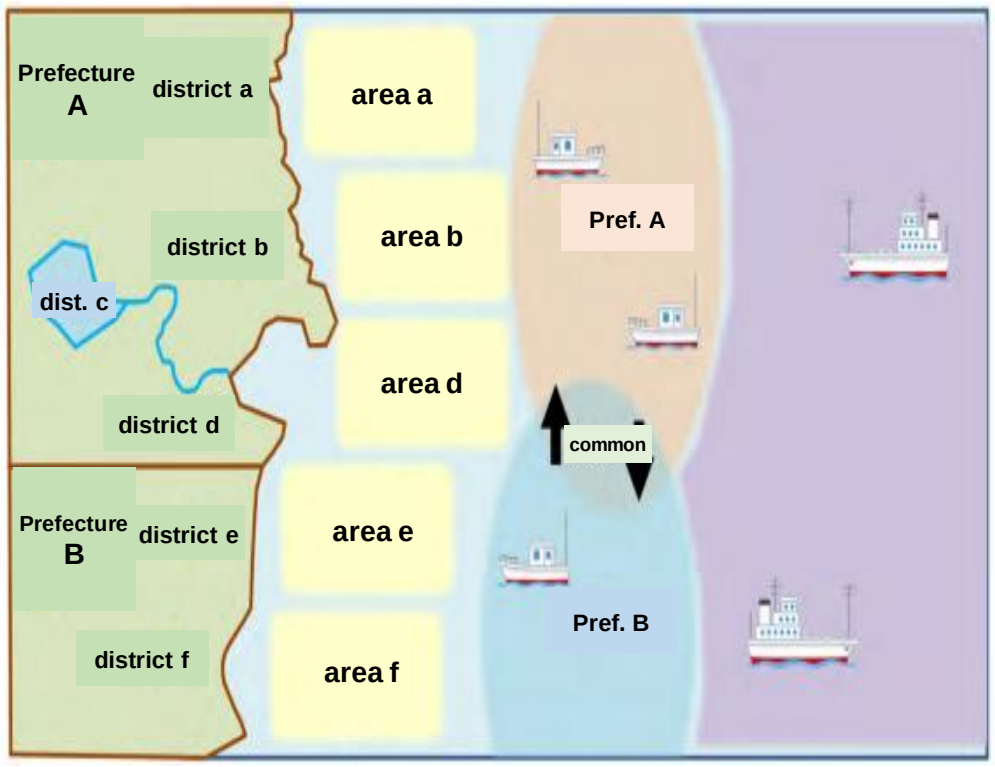
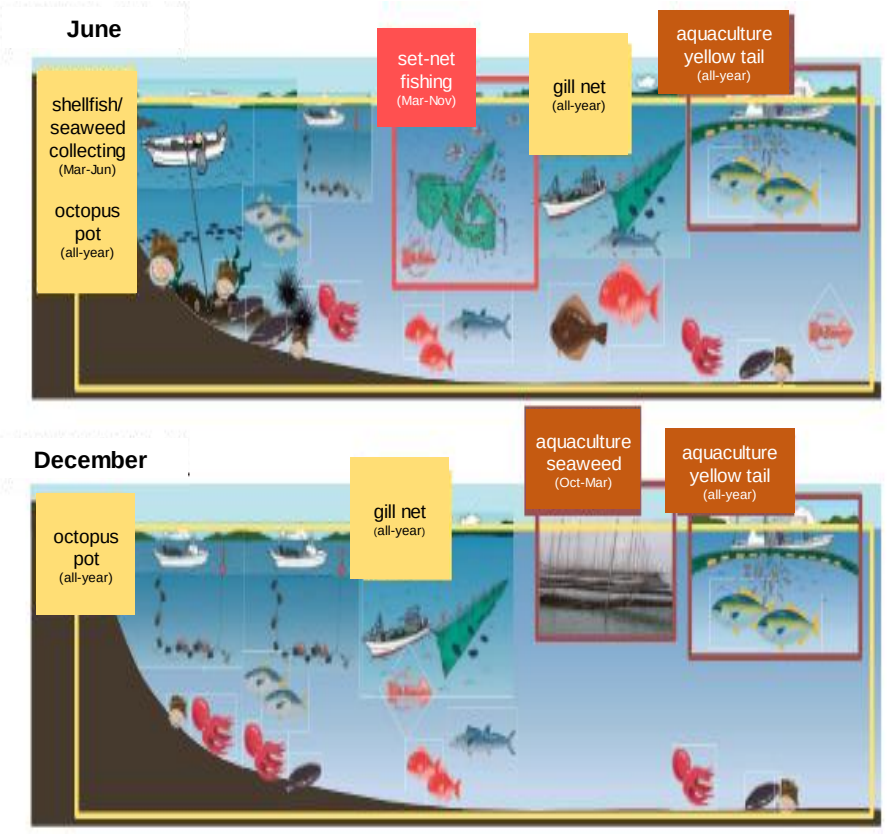


Image - vertical utilization



A New Resource Management Policy

【 Resource Survey 】
（All stakeholders）

- Data of daily catch
- Observation using Research Vessels
- Research on the relationship between marine environment/ resource fluctuation
- Enhanced data collection on marine environment

【 Stock Assessment 】
（Research institution）

Conducted independently

Results of stock assessment available every year

Provide Scientific Evidence to be considered in setting/revising management targets

【 Management Goals 】
（Public authority）

Outreach

1. Stock level to achieve MSY, to avoid overfishing
2. Others if necessary

【 Management goals 】
（ Public authority ）

Stakeholders Consultations

【 Management Measures 】

Stakeholders Consultations

Total Allowable Catch (TAC) Individual Quota (IQ)

Voluntary Management Arrangement (Approved by local governors)

【 Resource Survey 】
（All stakeholders）

- Collect daily catch data

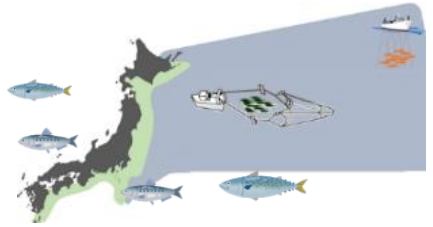


Enhancement of Resource Survey and Assessment

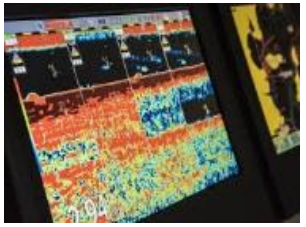
- For the effective fisheries management, scientific evidence is the key.
- In this context, Japanese government have expanded the number of fish species to conduct stock assessment from 50 to around 200 species.
- At the same time, Japanese government plans to improve data accumulation and its accuracy.

＜Scope of stock assessment＞

1. The scope used to cover the species that are widely distributed
2. The Fisheries Agency expands the scope, and now starts to evaluate around 200 species



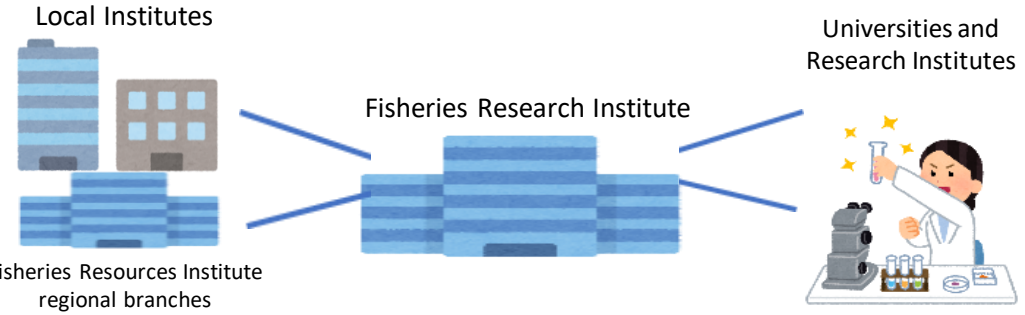
trolling



fish sonar



research vessel





unmanned vehicle (ROV, AUV)



check at markets

Scheme for Capture Reporting

STEP①
Catch data is digitally provided by fishermen or fishermen's organizations

STEP②
Data is consolidated in a system

STEP③
Data utilized by public/research agencies

Fishermen



Fishermen report the catch data if they sell their catch directly to the buyers



Catch data provided via apps or other tools

If fishermen sell their catch through markets

Local market





Landed data provided through data management systems

National database
(National System)

Harmonizing various names of fish





Using cloud technologies with enhanced data protection/security

Monitoring of licensed vessels



Stock assessment



TAC reporting

