FY2019 Trends in Fisheries

FY2020 Fisheries Policy

Summary

This document is a report on fisheries trends and the policy implemented during FY2019 in accordance with the provisions of Article 10, paragraph (1) of the Fisheries Basic Act (Act No. 89 of 2001) as well as the fisheries policy to be implemented in FY2020 in accordance with the provisions of paragraph (2) of said Article.

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Special Issue: Review of Japan's Fisheries in the Heisei period.

Trends in Japan's Fisheries Since FY2018

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Structure of "FY2020 Fisheries Policy"

Note: The maps in this document do not necessarily inclusively show Japan's territory.

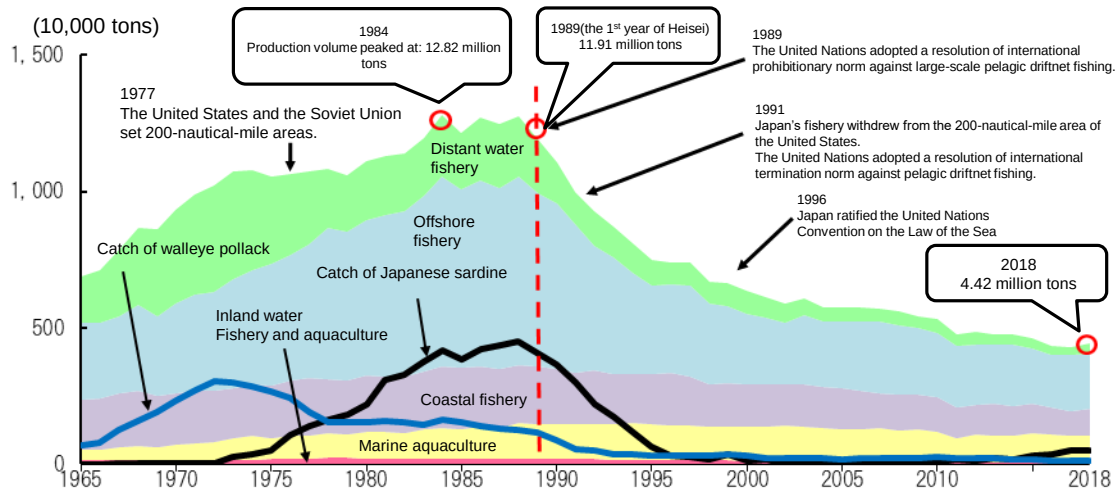
Special issue: Review of Japan's Fisheries in the Heisei period*.

*From January 8, 1989 to April 30, 2019

Section 1 Change of Japan's Fisheries
(1) Situational Change of Fishery Production

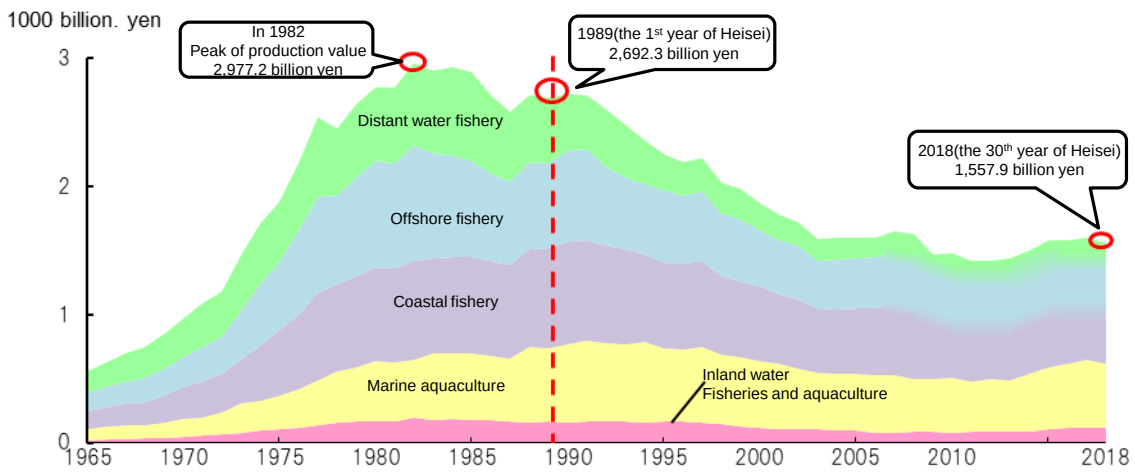
- The "200 nautical miles" era began in late 1970s and distant water fishery declined. The catch of sardine increased and reached in 1984 the peak production of fishery and aquaculture, 12.82 million tons. The production value reached the peak of 2,977.2 billion yen in 1982 and then decreased afterwards.
- The ratio of the production of distant water fishery to the whole production of fishing vessel fishery was about 40% in 1973 and decreased to about 10% in 2018.
- The ratio of the production of offshore fishery to the whole production of fishing vessel fishery was about 50-60% throughout the period from 1989 to 2018.
- The ratio of the production of coastal fishery to the whole production of fishing vessel fishery increased to about 30% throughout the period from 1989 to 2018 although it tends to gradually decrease now due to changes of the marine environment.
- The production of marine aquaculture reached the peak of 1.34 million tons in 1994 and then gradually decreased afterwards. However, the production of yellowtail fish and similar ones does not change much.

Change of fishery production and fishing environment in Japan



Source: Fisheries and Aquaculture Production Statistics (the Ministry of Agriculture, Forestry and Fisheries)

Change of fishery production value in Japan



Source: Prepared by the Fisheries Agency, based on Gross Fisheries Output (the Ministry of Agriculture, Forestry and Fisheries)

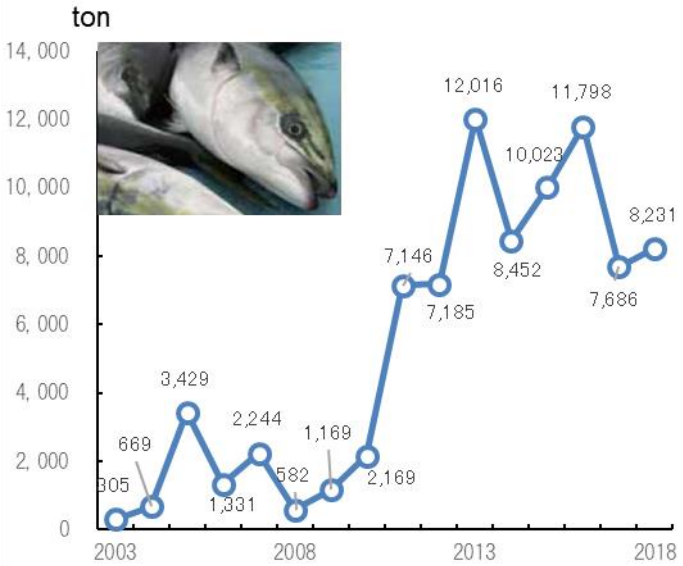
(2) Trends in Fishing Ground Environment

○In the Heisei period, various phenomena were observed such as increasing catch of yellowtail in Hokkaido Prefecture, expanding distribution of Japanese Spanish mackerel to the northward, and strengthened sea desertification along the coast of Kyushu, which could be mostly caused by increase of the sea water temperature. Development of aquaculture species highly resistant against high water temperature was promoted to respond to the climate change.

○In the Heisei period, measures for the fishing ground environment were strengthened through the Act on Ariake Sea and the Act on the Seto Inland Sea and cleaning of beaches and shores was conducted mainly by fishers involved in fishery over the country.

○The Sustainable Aquaculture Production Assurance Act was established in 1999 and fishery cooperative organizations created a Fishery Ground Improvement Plan on the basis of the Act to organize activities for improvement of fishery ground environment. Then, environmental improvement of the fish farms was promoted.

Change in catch of yellowtail in Hokkaido Prefecture



Source: Prepared by the Fisheries Agency, based on Hokkaido Fishery Status (the Government of Hokkaido Prefecture)

(3) Change of the Consumption of Fish and Fishery Products

○The world's per capita consumption of fish and fish products has nearly doubled in the past half century. The consumption shows significantly increasing trends, especially in emerging countries such as China.

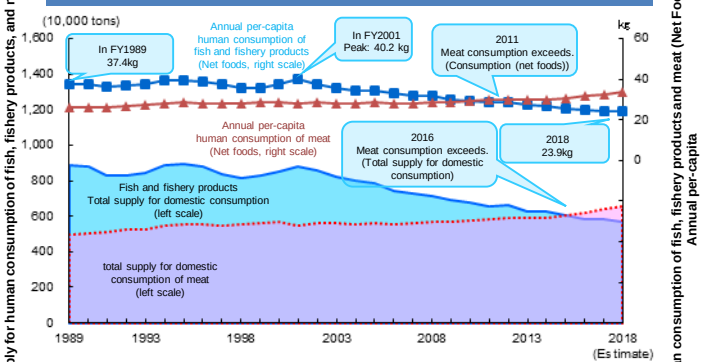
○Although Japan's per capita consumption of fish and fish products is still in a high level if compared to those in other countries, it has declined to the same level as the level 50 years ago.

○The annual consumption of fish and fishery products per capita tends to decrease from 40.2 kg, the peak in 2001. In 2011, the consumption of meat exceeds that of fish and fishery products.

○The most purchased fish species are squid and shrimp in 1989 but in recent years salmon, tuna, and yellowtail.

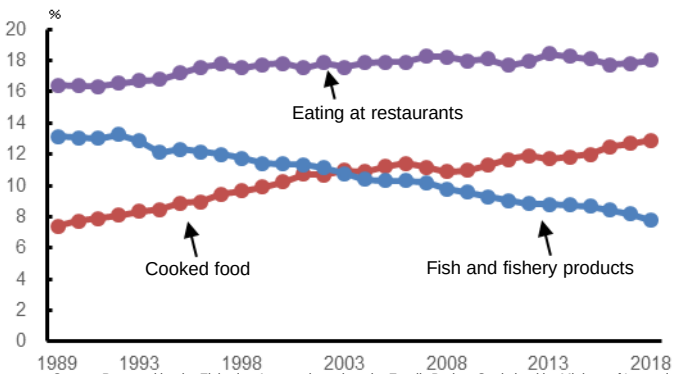
○Because time of doing housework has been shortened due to women's social progress and increase of the number of couples with husband and wife both working, there has been a tendency to have simplified meal and the ratio of expenditure for cooked foods and eating at restaurants to expenditure for foods has been increasing in family budgets.

Change of supply for domestic human consumption of fish and fishery products and annual consumption per capita



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

Change of the ratio of expenditure for eating at restaurants and others among total meal expenditure



Source: Prepared by the Fisheries Agency, based on the Family Budget Statistics (the Ministry of Internal Affairs and Communications)
Note: For each family with two people or more (except those engaged in agriculture, forestry, and fisheries in 1999 or before)

(4) Conclusion of a Treaty and Establishment of a Law as Guideline of Fisheries Policies

○The United Nations Convention on the Law of the Sea, which specifies human activity in all ocean areas came into force in 1994 and Japan ratified it in 1996. Since then, resource management activities have been conducted.

○In 2001, the Fisheries Basic Act was established as a guideline of fishery policies for comprehensive targets of whole fishery industry including processing and distribution, with the background that the situation of fishery had changed largely. On the basis of the Act, the Fisheries Basic Plan was established as mid-term guideline for fishery policies.

○For inland water fishery, the Act to Promote Fishing in Inland Waters was established in 2014. On the basis of the Act, the Guidelines on promotion of inland water fisheries was established as mid-term guideline for promotion of inland water fishery.

(5) Activity of Sustainable Use of Fisheries Resources

○Stock enhancement fishery was expected to increase the fishery production in the 200-nautical-mile era. In 1980s and 1990s, the number of major fish stock enhancements reached a peak. On the other hand, in the period from 1989 to 2018, tax revenue sources were transferred from the national government to local ones to promote the stock enhancement fishery over the country. In recent years, the national government has promoted activities for fair benefit and fair cost allocation for wide-area fish and activities to establish joint stock enhancement systems with low cost and high productivity.

○For Japan to ratify the United Nations Convention on the Law of the Sea in 1996, the Act on Preservation and Control of Living Marine Resources was established. In January 1997, the total allowable catch (TAC) system based on the Act began to be applied to 6 species.

○For promotion of voluntary resource management by fishers from FY2011, the national and prefectural governments set the Resource Management Guidelines and implement a resource management system and the fishers and groups of fishers develop and implement a resource management plan. To support activities for the resource management plan, measures for resource management and stable income (currently, measures for stable fishery income) were introduced.

○Western and Central Pacific Fisheries Commission (WCPFC) which manages tuna species and North Pacific Fisheries Commission (NPFC) which manages fisheries resources such as Pacific saury in the high seas of Pacific Ocean were established as international regional fisheries management organization in the Heisei period from 1989 to 2018. Japan - China Fishery Agreement and Japan - Korea Fishery Agreement, etc. were concluded to maintain Japan's relationships with peripheral countries and regions.

○ International activities to prevent, deter and eliminate IUU (illegal, unreported, and unregulated) fishing were also promoted.

(6) Change of Development of Fisheries Infrastructure

○The Fishing Port Act was amended in 2001 to the Act on Development of Fishing Ports and Grounds which aims to develop fishing ports and grounds in an integrated way.

○The Frontier Fishing Ground Enhancement and Development Project implemented by national government was introduced in 2007 for exclusive economic zones.

○Through the period from 1989 to 2018, sanitary management measures for fishing ports, measures against the aging of infrastructures for fishing port facilities, etc., and measures to prevent disaster or reduce disaster risk of fishing ports and villages were promoted.

Section 2 Change of Fishery Structure

(1) Change in Fishery Management Body Structure

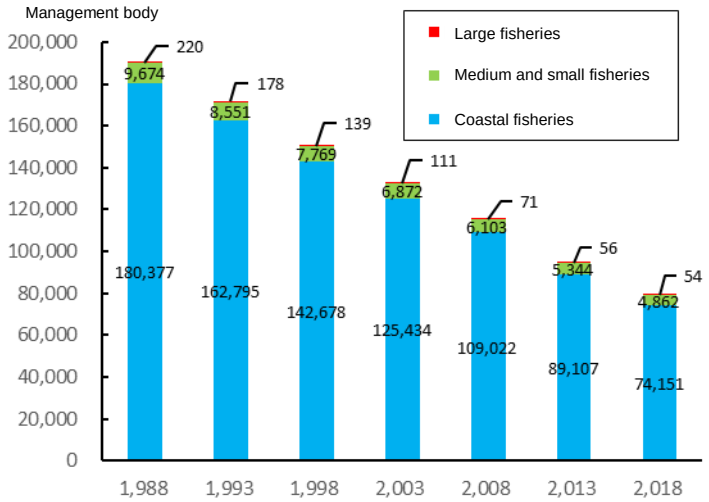
○The number of management bodies of sea fisheries and aquaculture decreased by 58% from about 190,000 in 1988 to about 79,000 in 2018.

○The decrease was 59% in the coastal fisheries, 50% in the medium and small fisheries, and 75% in the large fisheries.

○The number of management bodies of inland water fisheries decreased by 61% from 4,961 in 1988 to 1,930 in 2018.

○The number of management bodies of inland water aquaculture decreased by 70% from 9,061 in 1988 to 2,704 in 2018.

Change of the number of management bodies of sea fisheries and aquaculture



Source: Prepared by the Fisheries Agency, based on Fisheries Census (the Ministry of Agriculture, Forestry and Fisheries)
Note 1: Coastal fisheries: Generic term for fishing with no vessel, fishing with powerless vessel, fishing with outboard engine, fishing with total weight less than 10 tons of power-driven vessels used in the past year, fishing with fixed net, and sea aquaculture.
Note 2: Medium and small fisheries: Generic term for fishing with total weight equal to or more than 10 and less than 1,000 tons of power-driven vessels used in the past year.
Note 3: Large fisheries: Generic term for fishing with total weight equal to or more than 1,000 tons of power-driven vessels used in the past year.

(2) Status of Management of Fisheries and Aquaculture

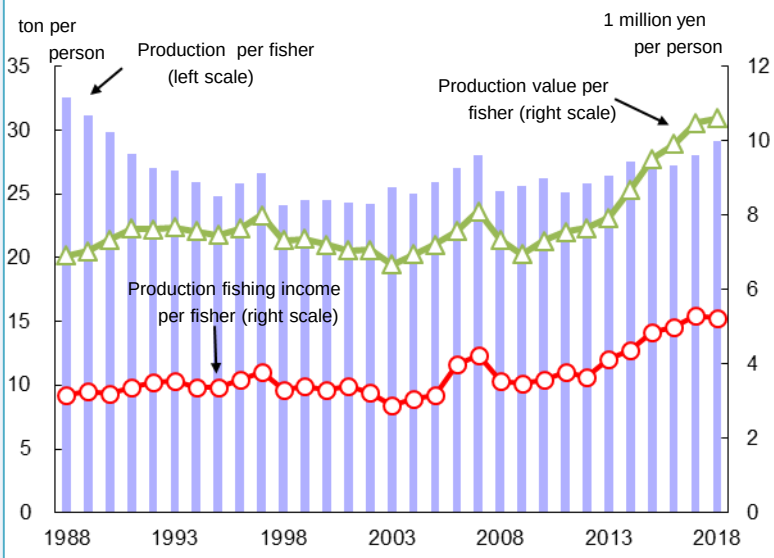
○The fishing income of private coastal fishing management bodies is higher for those younger than 65 than for those aged 65 or older.

○The fishing income of private sea aquaculture management bodies is higher for those aged younger than 65 than for those of all ages.

○The management status of company management bodies of fishing vessel fisheries indicates that the fishing profit was zero or negative but the non-fishing profit gradually increased making the operating profit positive in recent years.

○The production of fisheries per fisher tends to increase since 2002. The production value of fisheries per fisher and the production fishing income per fisher tend to increase since 2003.

Change of productivity of fisheries and aquaculture in Japan

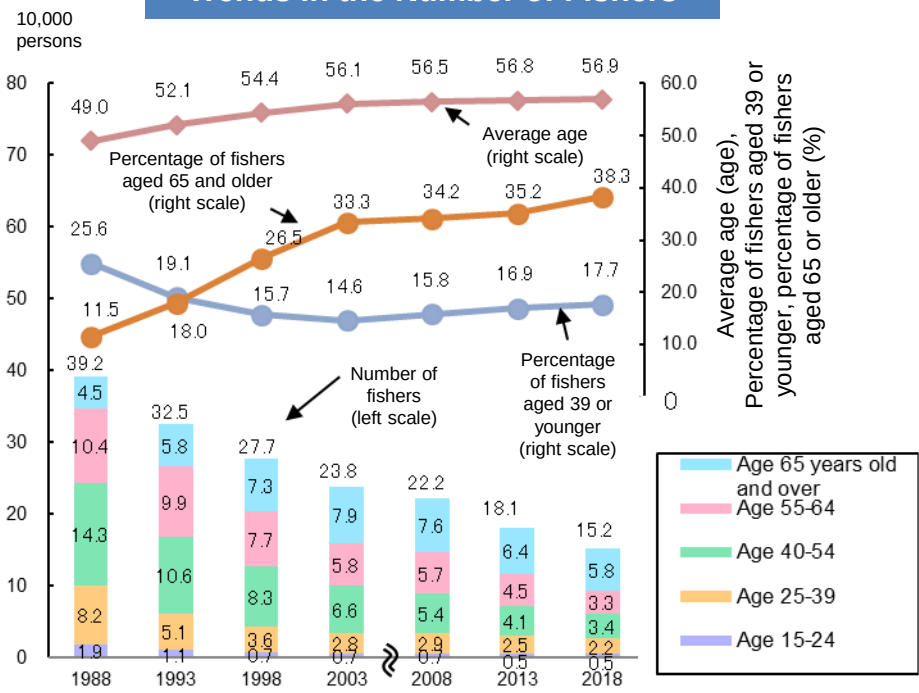


Source: Prepared by the Fisheries Agency, based on the Fisheries Census, Survey on the Trends in Fishery Employees, Fisheries and Aquaculture Production Statistics, and the Gross Fisheries Output (the Ministry of Agriculture, Forestry and Fisheries)

(3) Change of Fishery Work Structure, etc.

- The number of fishers decreased by 61% in 30 years from 1988 to 2018.
- The ratio of fishers aged 39 or younger among all the fishers tends to gradually increase since 2003 and 2010s. On the other hand, the ratio of fishers aged 65 and older tends to increase consistently.
- The annual number of new entrants into fisheries has remained at the same level, at around 2,000 persons, since 2009. The percentage of fishers aged 39 and younger is about 70%.

Trends in the Number of Fishers

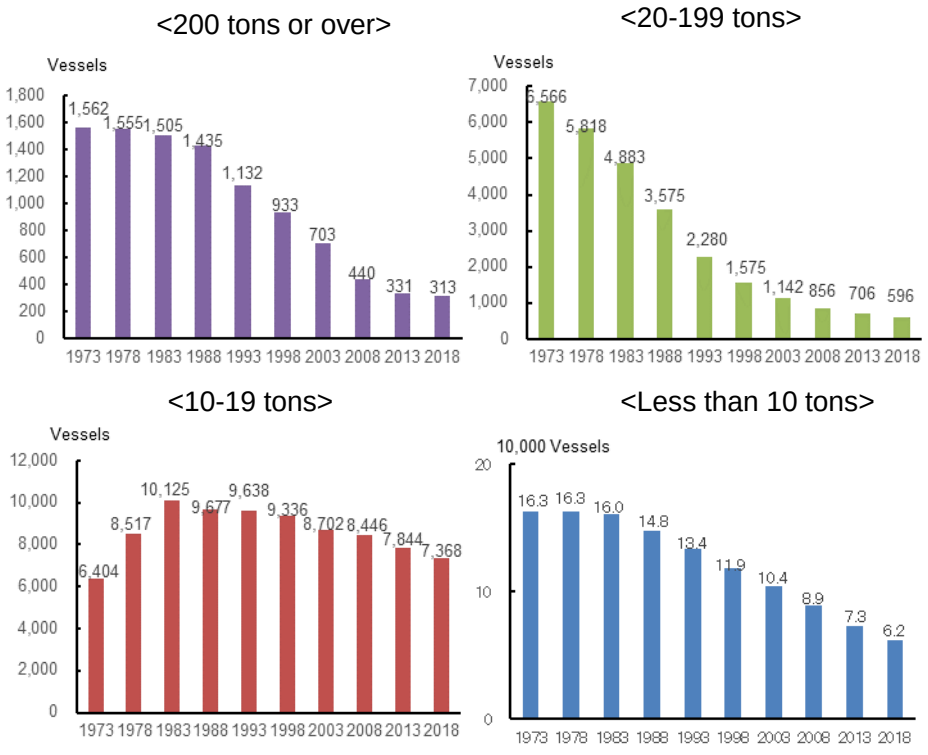


Source: Prepared by the Fisheries Agency, based on Fisheries Census (the Ministry of Agriculture, Forestry and Fisheries)
Note: In and after 2008, the survey was conducted by the fishery management bodies, namely employer side. Therefore, those living in non-coastal areas who were not included in previous surveys were included in the current survey., which was hence not continuous from the previous one in 2003.

(4) Change of Fishing Vessel Structure

- The number of fishing vessels of any sizes decreased in the period from 1989 to 2018. In particular, the number of fishing vessels of 20 tons or heavier used for offshore and distant water fisheries has decreased to about 20% in 30 years.
- Fishing vessels has got older in the period from 1989 to 2018. The percentage of fishing vessels of 5-9 tons aged 20 or older has increased from 4% to 83% and that of 10-19 tons aged 20 or older has increased from 5% to 72%. Among fishing vessels of 20 tons or heavier, the percentage of those aged 20 or older increased and the percentage of those younger than 10 years tends to increase since 2008.

Change of the number of fishing vessels



Source: Fisheries Census (the Ministry of Agriculture, Forestry and Fisheries)

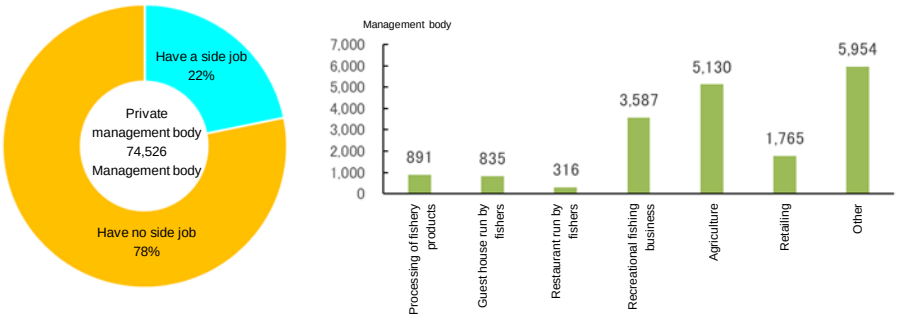
(5) Actual Status of Side Jobs in Fisheries

○About 20% of all fishing vessels (most of which are coastal squid fishing vessels and stick-held dip net saury fishing vessels of less than 20 tons) operate multiple kinds of fisheries.

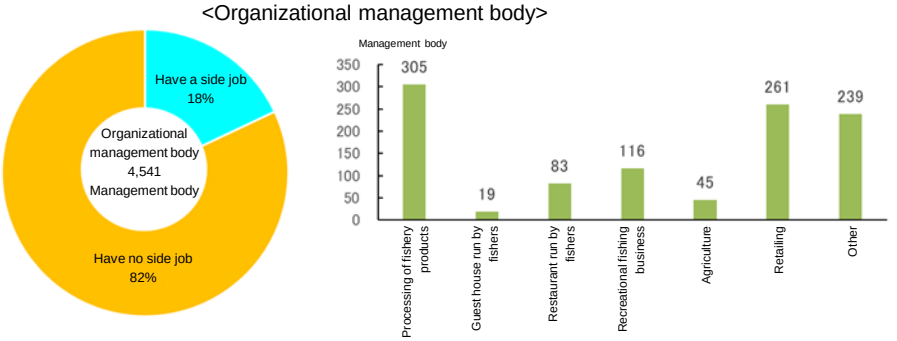
○About 20% of sea fisheries management bodies have side jobs other than fisheries. The side jobs of private management bodies include agriculture, recreational fishing business, etc. and those of organizational management bodies include fishery processing, retailing, etc.

Status and kinds of side jobs in fishery management bodies (2018)

<Private management body>



<Organizational management body>



Source: Prepared by the Fisheries Agency, based on Fisheries Census 2018 (the Ministry of Agriculture, Forestry and Fisheries)

(6) Change of Distribution and Processing Structure

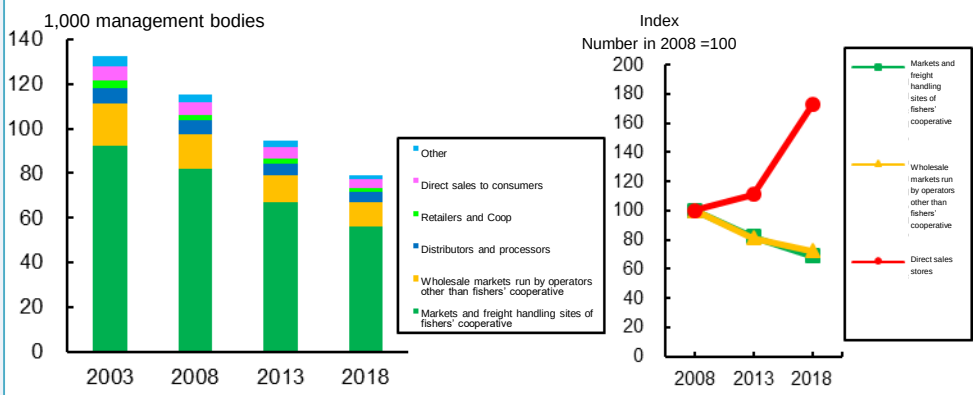
○70% of fisheries management bodies mainly ships fish and products to markets and processing sites. The number of fisheries management bodies which ship fish and products to direct sales stores increases.

○The number of fish markets tends to decrease in the period from 1989 to 2018. Annual amount of fish handling also tends to decrease but that of living fish has been increasing in recent years.

○The number of fishery processing sites tends to decrease. In particular, the number of processing factories where dried fish products are produced decreased to about 30%. On the other hand, the number of processing factories where frozen foods are produced has been increasing in recent years.

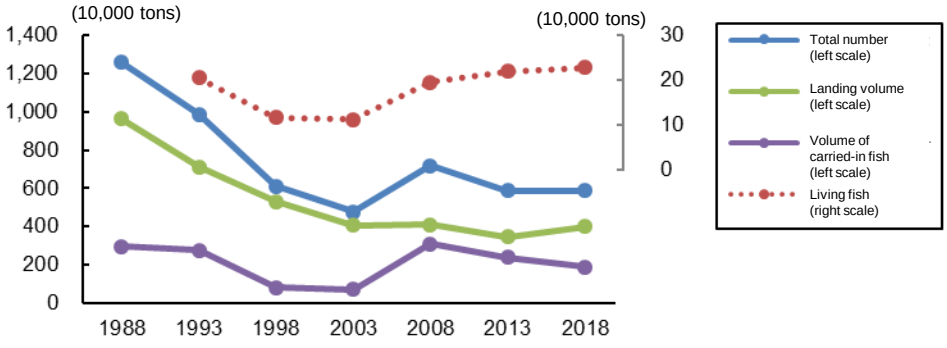
○The number of foreign workers at cool product factories, frozen product factories, and fishery processing factories increases.

Change in shipment destination of fisheries management bodies



Source: Prepared by the Fisheries Agency, based on Fisheries Census (the Ministry of Agriculture, Forestry and Fisheries)

Change of annual amount of fish handling at fish markets



Source: Fisheries Census (the Ministry of Agriculture, Forestry and Fisheries)

Section 3 Promotion of Renovation Toward the Reiwa Era

(1) Establishment of "Reform of Fisheries Policies" and Amendment of Fishery Act, etc.

○In the Heisei period, the trend and environment of Japan's fisheries changed significantly and new actions were taken for future development of the fisheries. As a turning point, it is desired to update the framework of previous policies and systems.

○In order to achieve both appropriate resource management and transformation of the fisheries industry into a growth industry at the same time, to increase fishers' income, and to establish a fishers job system with well-balanced age distribution, Reform of Fisheries Policies were made in June 2018.

○To develop laws for the Policies, the Fishery Act was amended in December 2018 and the basic systems of fishery production such as the resource management measure, fishing permission, and fishing right were amended.

(2) Specific Direction of Reform of Fisheries Policies

i. Promotion of a new resource management system

○For transformation of the fisheries industry into a growth industry, it is important to preserve, recovery, and appropriately manage the resources. Therefore, resource evaluation is conducted on the basis of resource surveys and an evaluation method and management method are introduced with a management aim to realize that the catch reaches maximum sustainable yield (MSY).

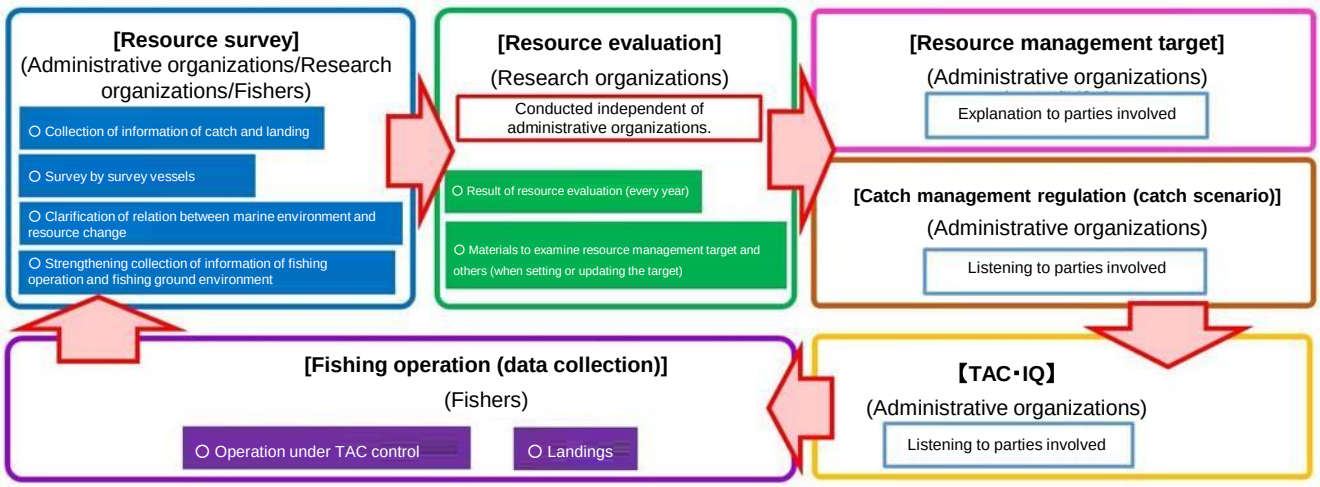
○For the resource evaluation, 1) information of resource generation situation, 2) estimation of the number of fish for different ages, the natural decrease rate, and the rate of death due to catch, and 3) influence of recent marine environmental change on the natural decrease rate are examined and a survey system to collect necessary information for the examination is strengthened.

○For non-TAC fish, results of the resource evaluation are released successively and an examination meeting is held. By doing so, it is aimed at that 80% of the catch will be under control of TAC management by 2023.

○Management based on Individual Quota (IQ) is introduced successively to the ready fisheries permitted by the minister.

○For collection of catch information which is important for the resource evaluation and resource management, it is newly obliged for fisheries permitted by a prefectural governor to submit a catch record report. It is also obliged for fisheries with fishing right to submit a report on resource management and ground usage. For the catch information, reporting and collecting via electronic means are promoted as smart fisheries activity.

Flow of resource management



ii. Strengthening of fishery production base and promotion of structural reform

Activation of fishing villages through Seashore Revitalization Plans and comprehensive use of fishing ground

○For coastal fishery, it is important that fishers themselves work on solving problems according to regional situations for increase of their incomes. To back up this activity, Seashore Revitalization Plans are promoted.

○To maintain power of local fisheries, the sea area (fishing ground) whose degree of use has decreased needs to be comprehensively used by collaboration with other industries or new entry from other districts.

Direct sales store "Shima no Shiki " run by JF Itoshima, which is working on increase of the income of fishers
(Right photo courtesy: Fukuoka Prefecture)

Transformation to operation and production system of fishing vessel fisheries with high profitability

○For offshore and distant water fisheries, transformation to an operation and production system with high profitability is promoted by introducing high-performance fishing vessels.

○Comfortability, safety, and operability of fishing vessels are enhanced and the Internet environment on the sea is developed for improvement of the work environment.

<Example of Overseas Purse Seine Fisheries>

Fishing vessels with improved labor and living environments

Accompanied helicopter

Wifi internet environment
Wi-Fiインターネット環境

Promotion of securement and development of human resource

○The acquisition of fisheries skills and knowledge such as handling of fishing vessels and tools is supported so that people having no experience of fisheries can take a job in fisheries and stay in it.

○Fishers' conscious renovation is promoted by 1) promotion of increasing the number of licensed mariners, 2) transmission of craftsmanship using ICT, and 3) acceptance of fisheries workers from other districts.

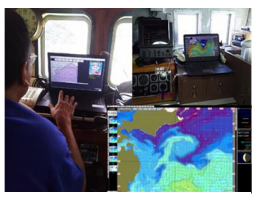
Promotion of Smart Fisheries

○In order to transform the fisheries industry to a growing industry, introduction and promotion of ICT/IoT/AI technologies and drone/robot technologies in fisheries and aquaculture sites are promoted.

○In addition, the fishery data collaboration platform that enables utilization of data obtained from production to distribution is developed.

Example of ICT and AI technologies on operation stage

Automatic feeder
Remote feeding can be made by checking feeding status of cultured fish through smart phones.
(Photo by Umitron)



Ebisu-kun
Wide-area information of water temperature and climate is provided to fishing vessels by combining sea surface temperature images measured from satellites and on-site temperature measured by fishing vessels or survey vessels.
(Photo by Japan Fisheries Information Service Center)

Aquaculture control cloud system
Feeding data and other information related to culture management are given as input through a tablet and the data is integrated in real time by cloud management.
(Photo by Fisher's cooperative of Azuma-cho and Minaminihon Information Processing Center)

iii. Reform of the Distribution Structure which Contributes to Increasing the Income of Fishers

Establishing a competitive distribution structure

○Establishment of a distribution structure competitive in terms of quality and cost is aimed at by making efficient the distribution of fishery products in collaboration with producers and processors, realizing electronic transactions, introducing selection and processing technologies with ICT and AI, strengthening quality and sanitary management of processing facilities, and promoting production responding to domestic and foreign demands.

○For wholesale markets, integration and emphasizing of production-area markets are promoted and the quality and sanitary management system is strengthened.

○From a viewpoint of promotion of thorough resource management and eradicating IUU fishing, activities on fishery traceability are promoted.

Promoting activities to expand export

○"Headquarters for the Export of Agricultural, Forestry and Fishery Products and Food" was established in April 2020 in the Ministry of Agriculture, Forestry and Fisheries. The headquarters promote negotiation with export destination countries with respect to regulation relaxation or deregulation, development and approval of export facilities, procedure for export, integration of issuing export certificates.

○A new target for export of agricultural, forestry and fishery products and foodstuff to reach 5 trillion yen (including fishery products of 1.2 trillion yen) by 2030 was established in March 2020.

○To expand export of fishery products, it is promoted to renovate fishery processing facilities and develop machinery to meet conditions of export destination countries, develop a business method and logistics that can be a model for international markets, use of marine eco-label certificates, develop cargo handling sites with highly controlled sanitary which can receive EU-HACCP certificate, strengthen cargo collection and shipment functions by integrated maintenance with freezing and cooling storage facilities, and strengthening a production function of cultured fishery products.

Promoting use of marine eco-label for fishery and aquaculture products

○Marine eco-label provides consumers with information that attention is paid to sustainable use of resources and the environment in the production of products. Activities to enhance the degree of recognition and acquisition of certificates are promoted and expanded.

Case Example **Town to live with the sea, Ainan-cho -Eco fish of Ainan-**

Ainan Fishery Cooperative acquired Aquaculture Eco Label (AEL) certificate in 2017 and aquaculture certificate of Marine Eco-label Japan (MEL) in February 2020 (for red sea bream). Through opportunities such as fair at department stores in Tokyo and surrounding areas, not only products and producers are introduced but also significance of the marine eco-label and importance of sustainable aquaculture production are emphasized in various activities. Acquisition of the certificate enables negotiation with foreign buyers who want products with marine eco-labels and accelerates activities to acquire foreign customers. Future expansion of the activities is expected.

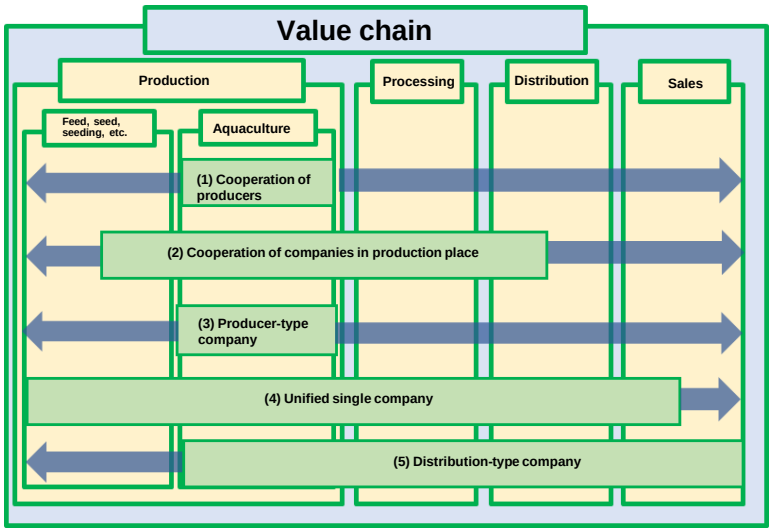
Promotion of certified products
(Source: Ainan Fishery Cooperative)

iv. Transformation of aquaculture to growing industry and promotion of inland water fisheries

○Efforts to transform aquaculture to a growing industry separately for each of domestic and foreign markets are made. In addition, information of quality and quantity of aquaculture products and use forms to respond to demands is acquired and systematic production in accordance with demands and production cycle is planned. Through these activities, transformation from product-out type to market-in type aquaculture industry is attempted.

○For inland water fisheries, promote activities to increase resources by stock enhancement and development of spawning ground by fisheries cooperatives. Moreover, it is promoted to create rivers with a plenty of nature in consideration of coexistence with the nature and harmonization with the environment.

Image of future aquaculture



v. Demonstration of multifunctional roles of fisheries and fishing villages

○The new Fishery Act provides that the national and prefectural governments are to give sufficient consideration so that the activities of fishers, etc. are conducted in a sound manner and fishing communities are revitalized, given that fisheries and fishing communities have multifunctional roles. In addition, a coastal fishing ground management system is introduced to promote ground preservation activities of fisheries cooperatives with wide support from beneficiaries.

vi. Revision of fisheries cooperative system

○It is described in Fishery Cooperative Act that fisheries cooperatives have to pay utmost attention to increase of fishery income. Fisheries Agency promotes activities for added value improvement and sales expansion in fisheries cooperatives.

Column **Response to COVID-19**

In and after January 2020, there have been reduction of domestic price and decline of export due to decrease of fishery products, such as scallop, yellowtail, bream, etc., caused by influence of COVID-19, and shortage of foreign workers due to regulations on entry, which largely affect business of fishers and fishery processors.

In and after March 2020, fisheries organizations are provided with caution to prevent infections and information about measures to continue business.

For financial support for affected fishers, their burden of interest payments or security on loans for fishing operations or loans for payment of existing debts will be effectively eliminated and their guarantee charge will be supported. Furthermore, the amount of money in the fishery income stabilization fund to compensate for the decrease in income of fishers will be increased and support will be provided for the temporary storage of excess supply of fisheries products affected by reduced demand and for the promotion of sales to new sales channels.