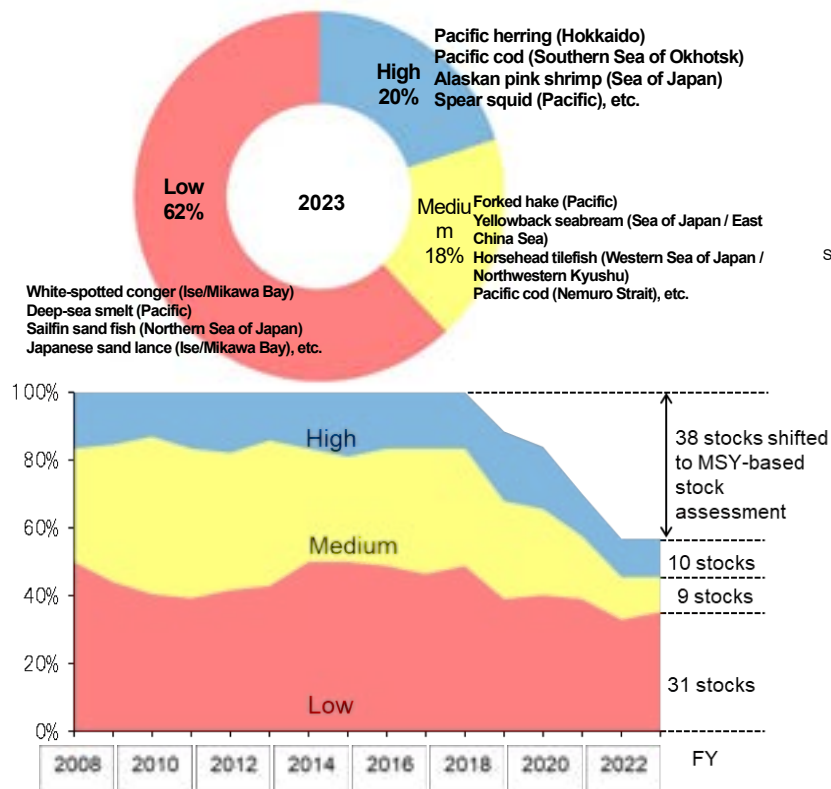


Chapter 3 Trends in Fisheries Resources and the Fishing Ground Environment

(1) Fisheries Resources in the Waters Around Japan

- To manage fisheries resources, it is important to take appropriate management measures based on stock assessment.
- Under the amended Fishery Act enforced in 2020, the number of species subject to stock assessment was expanded from 50 in FY2018 to 192 in FY2021.
- Among the species subject to stock assessment, the abundance and fishing intensity of 38 stocks of 22 species were estimated by FY 2023 for the purpose of achieving the MSY (Maximum Sustainable Yield).
- For 50 stocks of 36 species, stock assessment was conducted with three levels of stock condition applied: high, medium, and low.

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



Source: Prepared by the Fisheries Agency, based on the Assessment of Fisheries Resources in the Waters Around Japan (the Fisheries Agency and Japan Fisheries Research and Education Agency)

Note: The number of species and trends were assessed as follows.

FY2019: 80 stocks of 48 species excluding the 7 stocks of 4 species which were shifted to MSY-based stock assessment, such as mackerel

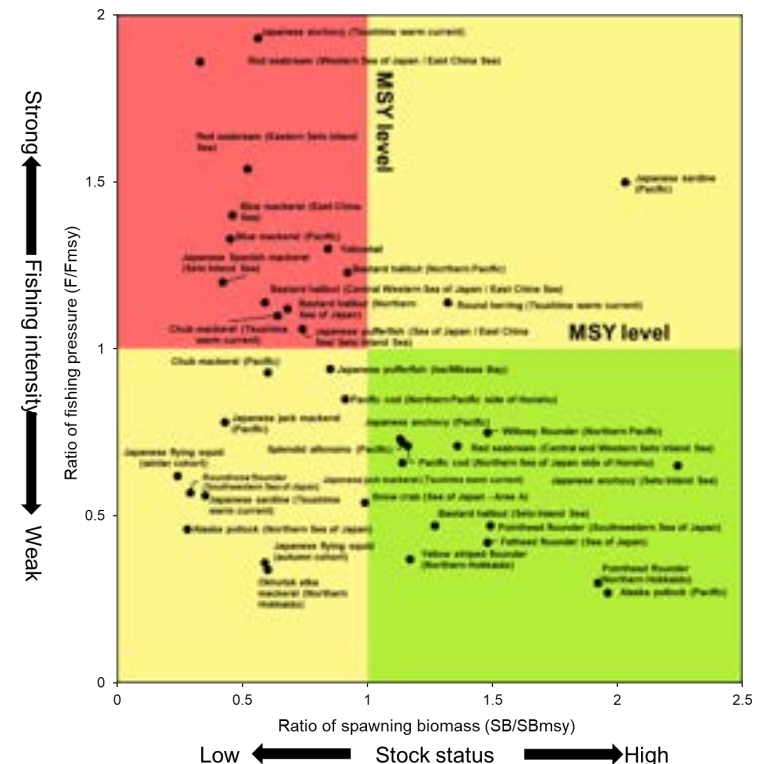
FY2020: 73 stocks of 45 species excluding the 14 stocks of 8 species which were shifted to MSY-based stock assessment, such as Japanese jack mackerel and Japanese sardine

FY2021: 61 stocks of 42 species excluding the 26 stocks of 17 species which were shifted to MSY-based stock assessment, such as Japanese anchovy and round herring

FY2022 and FY2023: 50 stocks of 36 species excluding the 38 stocks of 22 species which were shifted to MSY-based stock assessment, such as Japanese pufferfish and splendid alfonso

From FY2020 onward, for 6 stocks of 2 species such as Alaska pollack (Southern Sea of Okhotsk), the three levels of condition "high, medium, and low" are judged on the basis of the stock status index, etc., stated in the stock assessment result report.

Stock Assessment Based on MSY



Source: Prepared by the Fisheries Agency, based on the Assessment of Fisheries Resources in the Waters Around Japan (the Fisheries Agency and Japan Fisheries Research and Education Agency)

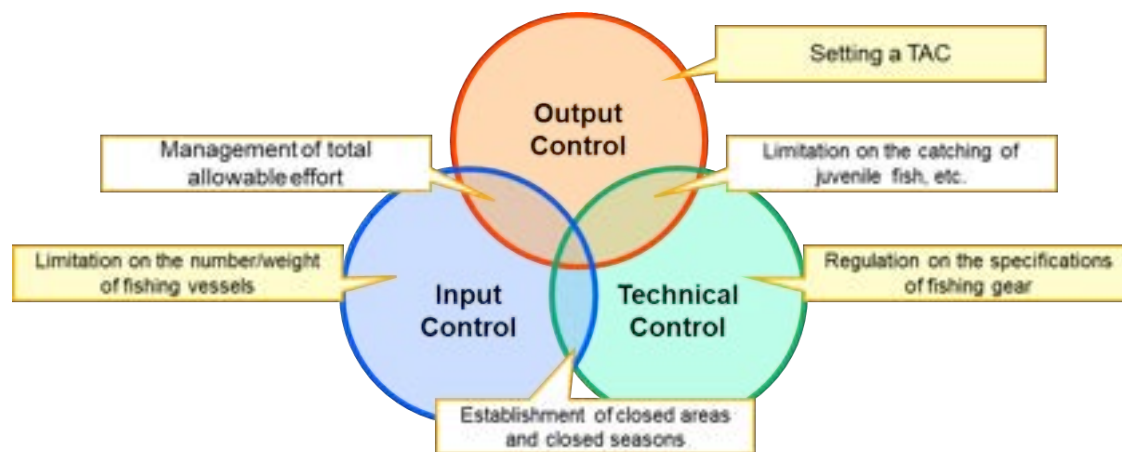
(2) Japan's Fisheries Resource Management



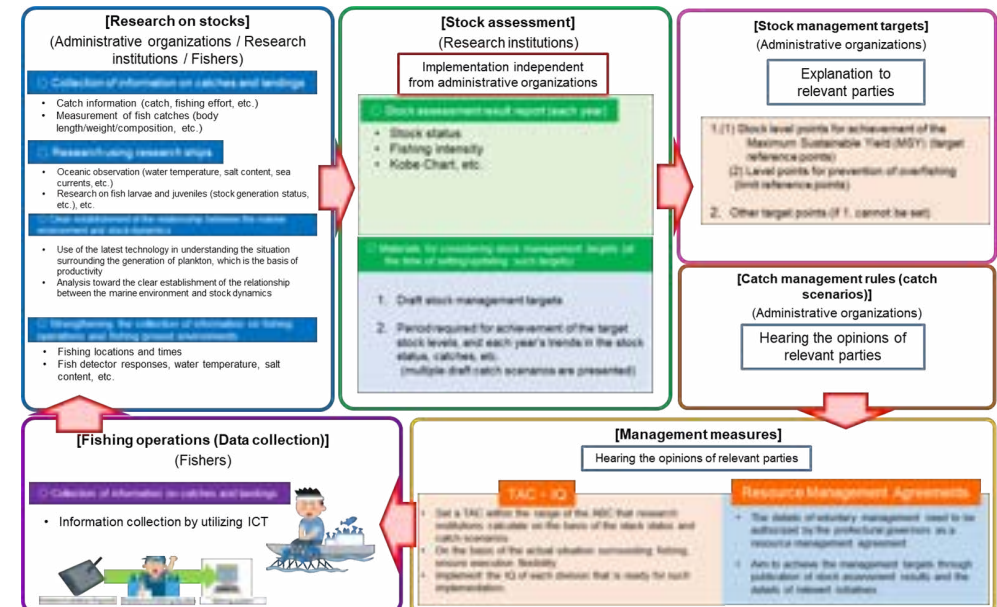
i. Promotion of the New Resource Management Based on the Amended Fishery Act

- Techniques for resource management are primarily classified into 1) input control, 2) technical control, and 3) output control. Under the amended Fishery Act, the objective of resource management is to achieve the level at/to which the stock status should be maintained or recovered in order to achieve the MSY, and TAC (Total Allowable Catch) should be used as a basic management method. In addition to the application of TACs, methods such as employing an operation period and restrictions on fishing gear are combined to appropriately implement resource management.
- Shellfish and algae harvesting, set-net fishing, aquaculture, and inland water fisheries are managed under fishery rights systems. Offshore and distant fisheries are managed on the basis of fishing permit systems.
- To establish a new resource management system, a “Roadmap for Promoting New Resource Management” was developed in 2020. With the aim of recovering catches to 4.44 million tons by FY2030, initiatives such as the following were set to be implemented by the end of FY2023: 1) expanding the fisheries species subject to stock assessment to about 200 species; 2) putting 80% of catches under TAC management; 3) introducing management based on IQs (individual quotas) to minister-licensed fisheries that mainly target, in principle, TAC species; and 4) shifting the current voluntary resource management by fishers (Resource Management Plans) to “Resource Management Agreements” based on the amended Fishery Act.
- For the achievement of the roadmap aim, in March 2024, a “New Roadmap for Promoting Resource Management” was developed and published, which indicates the specific processes to be implemented in FY2024 onward.

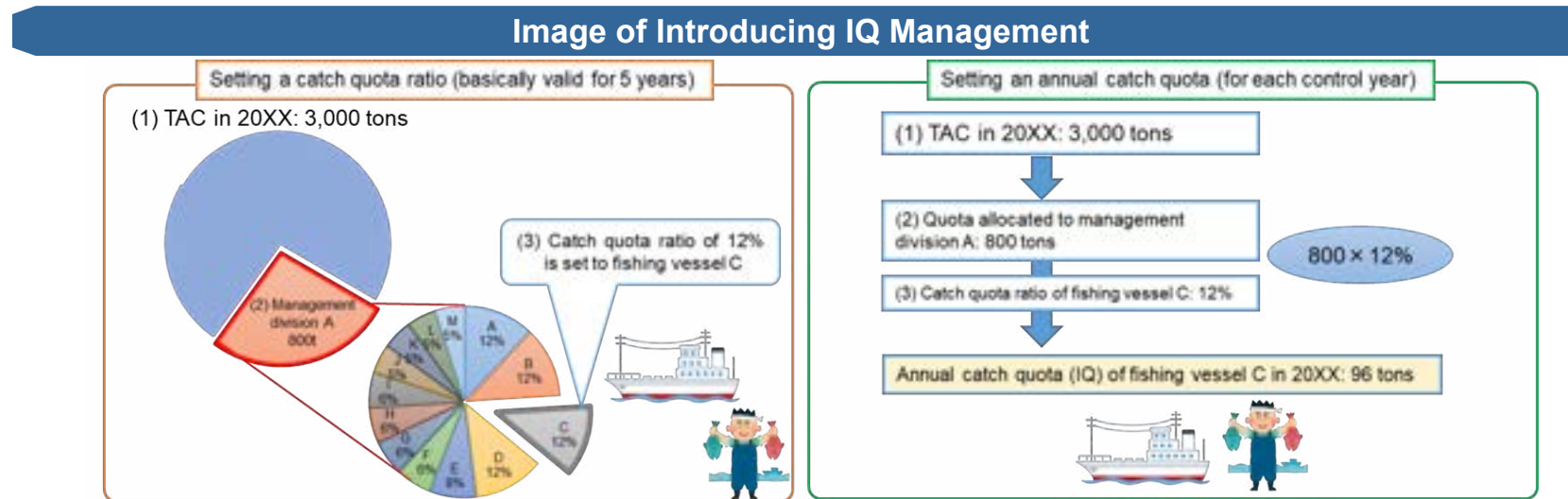
Correlation Between Resource Management Methods



Flow of Resource Management



- The ratio of stocks subject to TAC management had been expanded to 65% on a catch basis as of the end of March 2024 owing to initiatives taken for its expansion, and the aim of such expansion is to start TAC management of 80% by FY2025.
- IQ management had been introduced to 11 fishing methods and stocks by the 2023 control year.
- The shift from Resource Management Plans to Resource Management Agreements was completed by the end of FY2023.



ii. Pacific Bluefin Tuna Resource Management

- For Pacific bluefin tuna, with agreement of the Western and Central Pacific Fisheries Commission (WCPFC), catch limits were set for large fish (30 kg or more) and small fish (less than 30 kg), and TACs were distributed among divisions controlled by the Minister and prefectures.
- For the 2022 control year onward, the distributed shares were reviewed in light of, among other matters, an increase in the catch limit for large fish determined in the 2021 annual meeting of the WCPFC.
- For appropriate volume control, the tightening of control of fishing and distribution, such as by individual management at the time of TAC reporting or by communicating/recording individual information at the time of transacting, is considered.
- Regarding recreational fishing, since June 2021, catching of small fish is prohibited, and it is mandatory to report the number and weight of fish caught in the case of large fish.

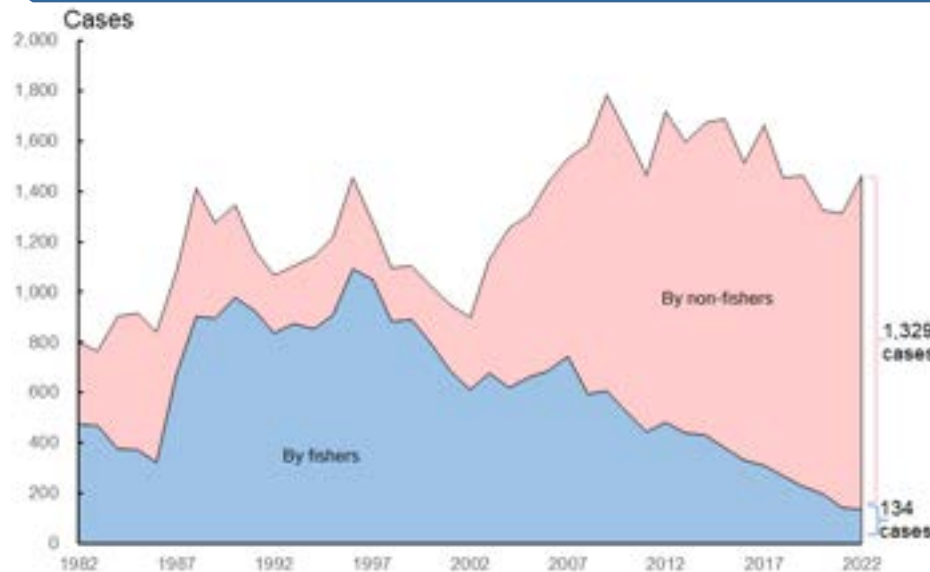


(3) Initiatives for Practical and Effective Resource Management

i. Prevention of Poaching and Fishery Control in Coastal Areas of Japan

- The nationwide number of arrests for poaching was 1,561 in 2022 (of which 1,527 were in coastal waters and 34 in inland waters). The number of poaching cases by non-fishers has significantly exceeded the number by fishers and has become more aggressive and cunning.
- Based on the amended Fishery Act, abalones, sea cucumbers, and juvenile eels, which have been subjected to malicious poaching, have been designated as “specified aquatic animals and plants,” and catching of them is, in principle, prohibited except for catching based on a fishery right or permission. Furthermore, the punishment under the Act has been made harsher.
- The Act on Ensuring the Proper Domestic Distribution and Importation of Specified Aquatic Animals and Plants came into force in December 2022, with the aim of preventing the laundering, etc., of illegally gathered or caught specific aquatic animals and plants at home or abroad into distribution channels. Domestically, the Act requires handling fishers, etc., to complete such procedures as notification to relevant administrative organizations and communication of the catch numbers. For importation from abroad, among other procedures, the attachment of certificates, etc., issued by the flag state’s government agencies is mandatory.
- Abalones, sea cucumbers, and juvenile eels are designated as class I aquatic animals and plants, for which domestic distribution control is in place. Mackerel, Pacific saury, Japanese sardine, and squid are designated as class II aquatic animals and plants, for which import control is in place.

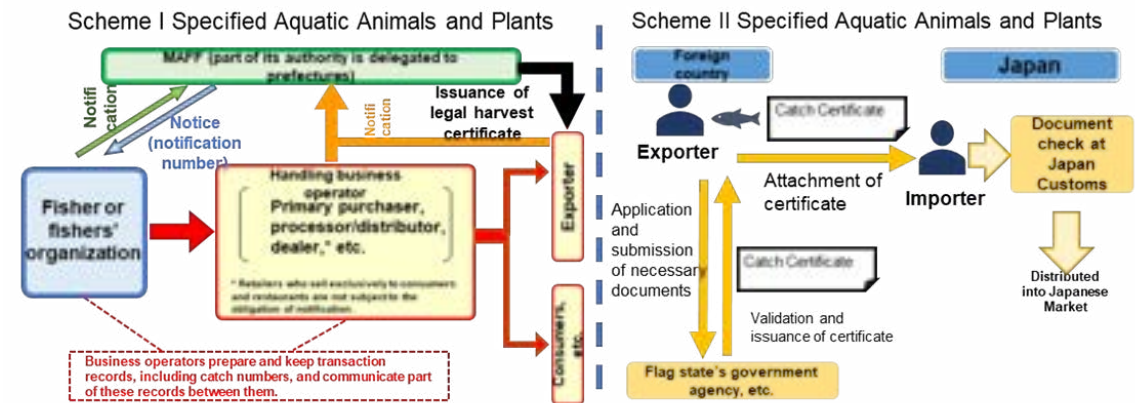
Trends in the Number of Arrests for Violation of Fisheries-Related Laws and Regulations in Japan's Marine Regions



Source: Prepared by the Fisheries Agency

Note: The total in 2022 includes 64 unknown cases in addition to cases by fishers and those by non-fishers.

Outline of the System for Proper Distribution of Fisheries Products

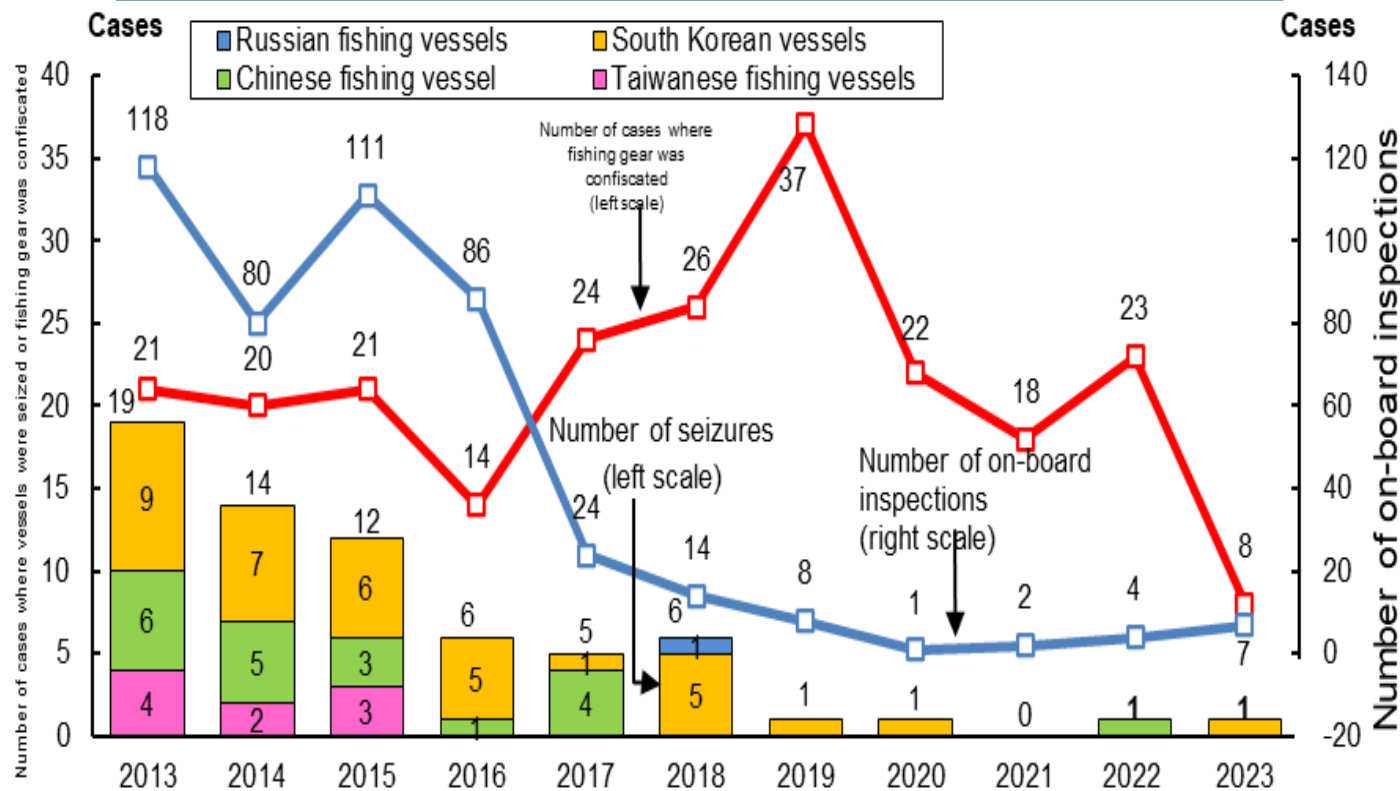


Note: There are penalties against violations of the obligations of notification, communication, recording of transactions, attachment of certificates for import/export, and others.

ii. Monitoring and Inspection of Foreign Fishing Vessels, etc.

- In 2023, with respect to the results of the Fisheries Agency's inspections of foreign fishing vessels, etc., it conducted seven on-board inspections, seized one vessel, and had eight cases of confiscation of illegal fishing gear.
- Illegal fishing by Chinese and North Korean fishing vessels around the Yamato Bank of the Sea of Japan is an extremely serious problem. The Fisheries Agency concentrates on conducting enforcement activities by using fisheries inspection vessels and responds in cooperation with the Japan Coast Guard. In 2023, the Fisheries Agency warned 68 Chinese fishing vessels, etc., to leave from the Japanese EEZ.

Trends in the Number of Foreign Fishing Vessels, etc., Seized, Inspected, etc.



Source: Prepared by the Fisheries Agency
 Note: On-board inspection on the high seas is not included.



Chinese fishing vessel (top)
 and North Korean fishing
 vessel (bottom) in waters
 around the Yamato Bank



(4) Initiatives to Actively Enhance Fisheries Resources

- The release of juvenile fish has been implemented as part of resource management in accordance with the “8th Farming Fishery Basic Policy” formulated in July 2022.
- Stocks of salmon (chum salmon) have declined in recent years due to a low return rate of released juvenile fish. It is also pointed out that changes in marine environments due to climate change also affect the survival of juvenile fish. The Fisheries Agency is therefore providing support for initiatives to improve release methods so that these methods can respond to environmental changes.
- In order to protect and increase fisheries resources, the Fisheries Agency has developed protective and nursery reefs and mound reefs.

(5) Trends in Fishing Ground Environments



i. Preservation and Recovery of Seaweed Beds and Tidal Flats and Improvement of Fishing Ground Environments

- It is important to raise the productivity of the entire ecosystem by preserving and recovering functions of seaweed beds and tidal flats, and therefore the Fisheries Agency promotes comprehensive measures for the conservation and creation of seaweed beds and tidal flats by local governments.
- The growth of marine algae and the increase of plankton that is food for fish, bivalves, etc., require nutrient salts including nitrogen and phosphorus compounds. It is suggested that, in enclosed water areas, a decline in nutrient salts, among other reasons, may potentially cause problems such as the decoloring of cultured nori seaweed. For the Seto Inland Sea, a nutrient salt management system to enable the supply and management of nutrient salts has been introduced following the enforcement of the amended Act on Special Measures Concerning Conservation of the Environment of the Seto Inland Sea in April 2022.
- To rejuvenate the Ariake Sea, etc., measures are taken based on the Act on Special Measures Concerning Rejuvenation of the Ariake Sea, the Yatsushiro Sea, etc., to improve and conserve the marine environment and recover fisheries resources in these regions.
- A red tide started appearing in the Yatsushiro Sea and Tachibana Bay in June to September 2023, causing damage to cultured fish, such as Japanese pufferfish, Japanese horse mackerel, red seabream, great amberjack, and yellowtail, in Kumamoto Prefecture, Nagasaki Prefecture, and Kagoshima Prefecture. Support was provided for the research, development, testing, etc., necessary in a radical reform of the aquaculture production structure.



Seaweed bed creation (installation condition of blocks on which marine algae can easily take root)



Preservation of seaweed beds (removal of sea urchins)

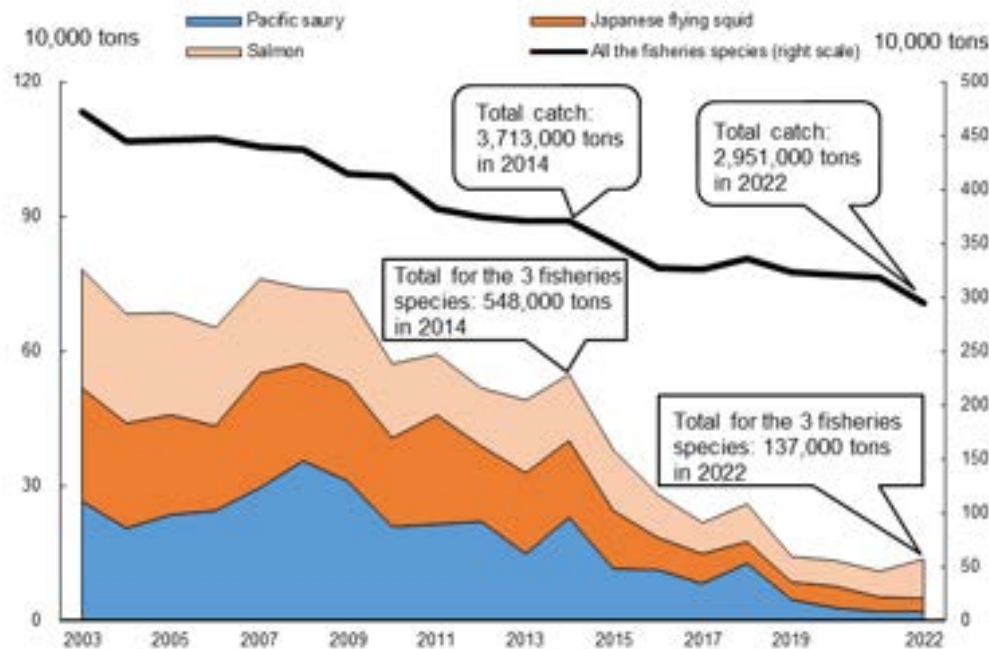


Maintenance of tidal flats (tilling of tidal flats)

ii. Impact of Climate Change and Countermeasures

- Climate change affects fisheries resources and fisheries/aquaculture through rising sea water temperatures due to global warming. It has caused changes to the distribution areas of Pacific saury and Japanese flying squid and a lower return rate of salmon, among other matters.
- As mitigation measures against climate change, initiatives toward carbon neutrality are also promoted in the fisheries sector, including the establishment of technologies related to the electrification of fishing vessels and the introduction of hydrogen fuel cells, etc., into fishing vessels, and exploring the potential of blue carbon as a carbon sink.
- As an adaptive measure for the aquaculture sector, the development of nori seaweed species with tolerance to high temperature for aquaculture is promoted.
- In March to May 2023, “Study Sessions on Ideal Fisheries Adaptable to Changes in the Marine Environment” were held. On the basis of the outcome that the study sessions reached, measures to realize the following matters are to be promoted: 1) enhancement and sophistication of research on resources and stock assessment; 2) combination and switching of fishing methods and fishing target species; 3) concurrent engagement in aquaculture or switching thereto; and 4) processing, distribution, etc., that can accommodate changes and expansion of fisheries species.

Trends in Catches of Pacific Saury, Japanese Flying Squid, and Salmon



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

Note: For Japanese flying squid, catches by distant water trawl fishery (southern waters) and squid jigging fishery from any region other than the waters of the Sea of Japan are not included.

Outcome of Study Sessions on Ideal Fisheries Adaptable to Changes in the Marine Environment



Direction of Actions (Summary)



- 1. Enhancement and sophistication of research on resources and stock assessment**
 - (1) Promotion of information exchange with relevant countries such as the United States in connection with stock assessment, etc.
 - (2) Enhancement of research methods such as the utilization of new equipment and the implementation of fishing vessel-based research to collect detailed marine environment data and fishery data
 - (3) Enhancement of research and assessment substance, such as by strengthening the collection of information on the distribution/migration and ecology of fisheries resources, and by promoting research on seaweed beds and tidal flats
 - (4) Promotion of dialog through, for example, prompt communication of scientific information to fishers and carefully listening to information from fishers
- 2. Combination and switching of fishing methods and fishing target species**
 - (1) Promotion of the addition and switching of fishing methods and fisheries species to accommodate resource fluctuations due to marine environment changes, the switching of set-net-fishing that relies on salmon, and the concurrent engagement in, or switching to, aquaculture
 - (2) Consideration of institutional actions for such combination, etc., such as the method of operation of IQs in minister-licensed fisheries
 - (3) Promotion of initiatives to encourage changes in management style, such as the demonstration of profitability by testing and research institutions and the facilitation of utilization of smart technology
- 3. Concurrent engagement in or switching to aquaculture**
 - (1) Measures concerning feed, such as the domestic production of fish meal and the development of feed containing a low level of fish meal
 - (2) Securing of juvenile fish, such as by promoting the diffusion of artificial juvenile fish
 - (3) Determination of aquaculture business forms for concurrent engagement or switching, according to needs and costs
 - (4) Improvement in productivity of existing aquaculture
 - (5) Measures concerning export and domestic distribution for aquaculture
- 4. Processing and distribution that can accommodate changes and expansion of fisheries species**
 - (1) Promotion of efficient distribution with smart technology and of the switching of raw materials for processing to fisheries species with good resource status, among other matters
 - (2) Strengthening of export measures which also cover new fisheries species, through promotion of initiatives such as the use of Marine Eco-Labels and construction of a supply chain that meets the needs of export destination countries
 - (3) Enhancement of the understanding of consumers about fisheries that give consideration to resource management and the environment
- 5. Securing and development of management bodies implementing initiatives for the combination, etc., of fisheries species and fishing methods, and human resources and fishery cooperative associations supporting such initiatives**
 - (1) Development of systems and mechanisms to support fishers engaged in such combination, etc.
 - (2) Securing and development of human resources, such as by promoting the acquisition of necessary knowledge and skills
 - (3) Strengthening and enhancement of the system of fishery cooperative associations supporting such combination, etc.

iii. Plastic Litter in the Ocean

- Marine plastic litter affects not only the environment and ecosystems but also fishing operations, such as through intermixing with fish catches.
- There are several measures taken by the Fisheries Agency, such as 1) formulating guidelines to promote well-planned disposal of used fishing gear; 2) developing fishing gear made of environmentally friendly materials such as biodegradable plastics, and supporting the promotion of recycling fishing nets such as purse seine nets; 3) promoting the bringing-back of marine litter by fishers in cooperation with the Ministry of the Environment, prefectural governments, etc.; and 4) verifying the impact of microplastics on marine organisms, etc.



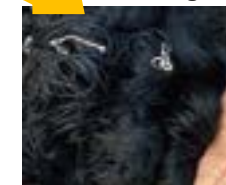
Prototype and demonstration of floats using biodegradable plastics
(Photos provided by the Clean Sea and Beach Foundation)

Case Example Teaming-up Between Fishers and Businesses for Resource Recycling of Waste Fishing Nets

The recycling of waste fishing nets, which was once considered a difficult task, has progressed at an accelerating pace, and purse seine fishery operators, net manufacturers, and other relevant parties have formed “TEAM Re:ism” to work beyond the borders of their respective industries and recycle waste fish nets such as by recycling them into new fishing nets or into pallets used on fishery operation sites. In addition to initiatives primarily led by fishers in Hokkaido and elsewhere to recycle fishing nets into fishing raincoats, bags, and other items, attention has also been drawn to the technology to produce solid fuel from fishing nets as an alternative to petroleum oil for thermal usage (thermal recycling).

It is hoped that, in the future, more stakeholders such as fishers, local governments, businesses, and local residents will cooperate with each other in realizing, among other matters, efficient collection and sorting of waste fishing nets and expansion of demand for recycled products, thereby further expanding initiatives for resource recycling in fisheries-related fields.

Waste fishing net New fishing net



New fishing net produced from waste one



Pallets for fishery use

(6) Damage to Fisheries Caused by Wildlife and Mitigation Measures

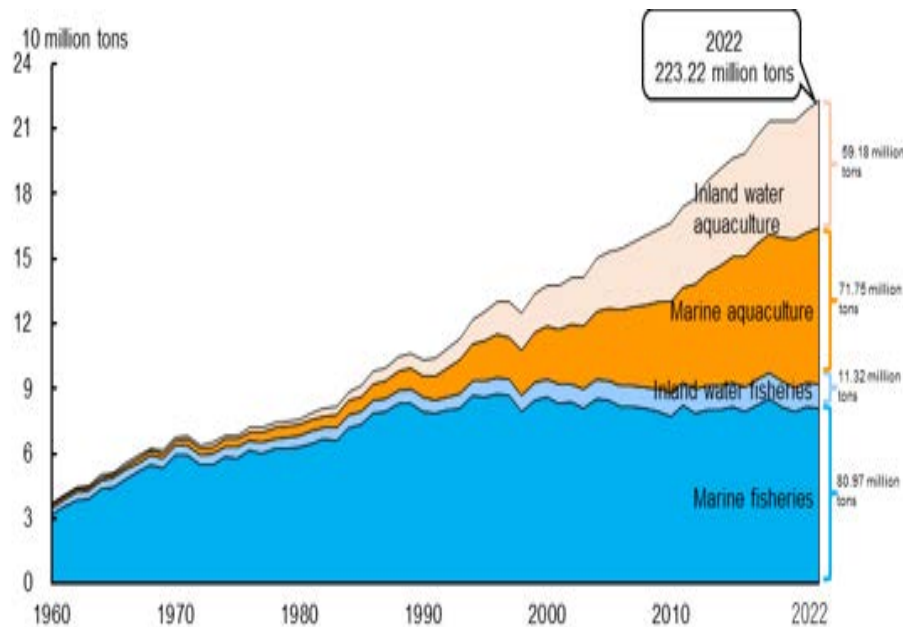
- Reports have come out about damage to fisheries caused by wildlife such as Steller sea lions and *Ascidella aspersa*. The Fisheries Agency investigates and provides information on the appearance of such wildlife and supports the development of technologies for damage mitigation and vermin control activities, among other matters.
- The amount of damage to fisheries caused by Steller sea lions was reduced from about 2 billion yen in FY2013 to about 0.8 billion yen in FY2022.
- Also, support has been provided in relation to initiatives that seek to remove great cormorants and non-native species such as largemouth bass from inland waters.

Chapter 4 International Situation Surrounding the Fisheries Industry

(1) Production of World Fisheries and Aquaculture

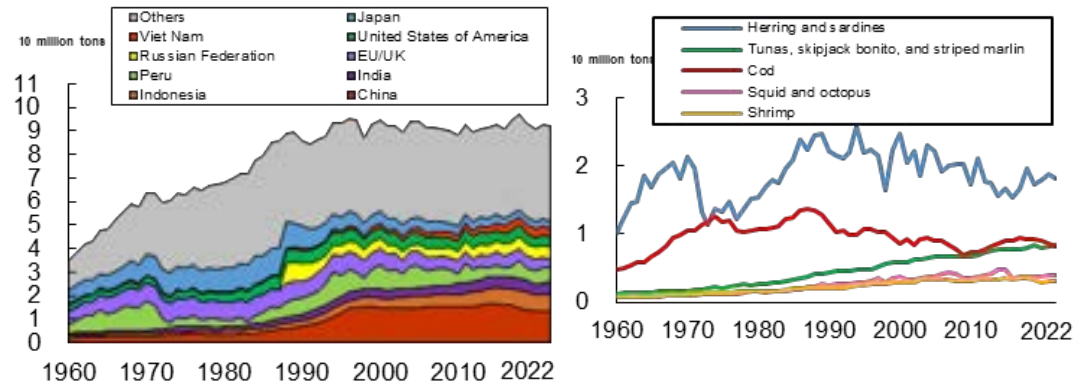
- The production volume of world fisheries and aquaculture has been on the increase. While fishery catches have remained flat, aquaculture production has been significantly increasing.
- In developed countries and regions including the EU/UK, the United States, and Japan, fishery catches have remained almost flat or seen a declining trend. In contrast, an increasing trend has been observed in developing countries including Indonesia and Vietnam.
- The aquaculture yield has been significantly increasing in China and Indonesia.
- The ratio of world fisheries resources caught within sustainable levels declined to 65% in 2019, meaning that overfishing accounted for 35%.

Trends in the Production Volume of World Fisheries and Aquaculture



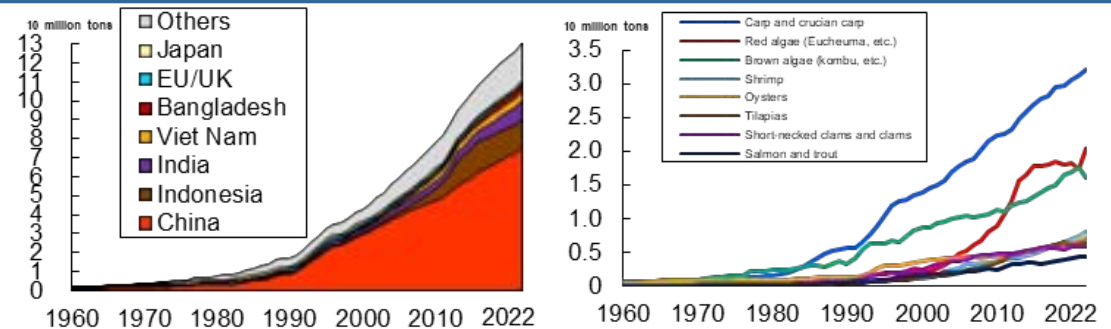
Source: Prepared by the Fisheries Agency, based on the Fishstat (Global capture production, Global aquaculture production) (FAO) (other than Japan) and the Fisheries and Aquaculture Production Statistics (the Ministry of Agriculture, Forestry and Fisheries) (Japan)

Trends in World Fisheries Catch by Country and by Fisheries Species



Source: Prepared by the Fisheries Agency, based on the Fishstat (Global capture production) (FAO) (other than Japan) and the Fisheries and Aquaculture Production Statistics (the Ministry of Agriculture, Forestry and Fisheries) (Japan)

Trends in World Aquaculture Yield by Country and by Fisheries Species



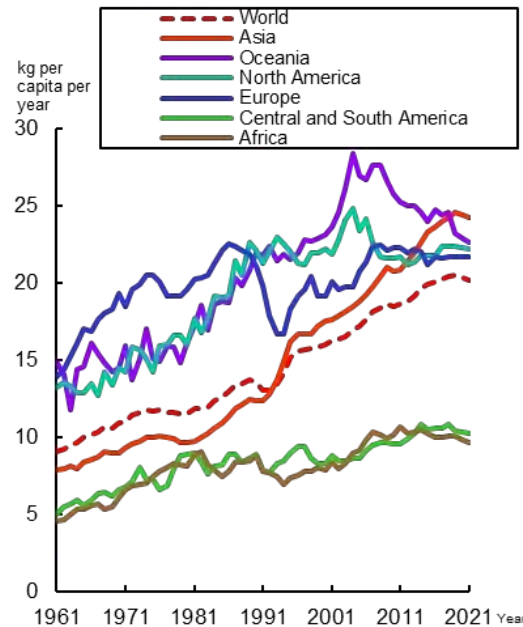
Source: Prepared by the Fisheries Agency, based on the Fishstat (Global aquaculture production) (FAO) (other than Japan) and the Fisheries and Aquaculture Production Statistics (the Ministry of Agriculture, Forestry and Fisheries) (Japan)

(2) World Consumption of Fish and Fishery Products and International Situation Surrounding the World Trade of Fish and Fishery Products

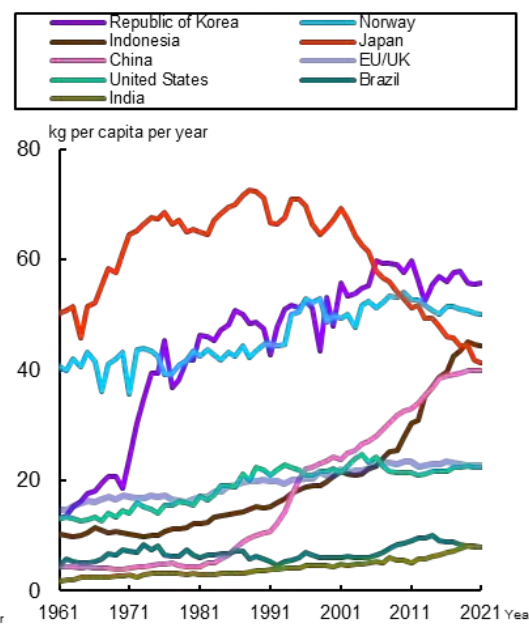
- The world's annual per-capita consumption of fish and shellfish as food has increased, whereas Japan's annual per-capita consumption has been on a declining trend.
- The trade volume of the world's fish and fishery products has been on the increase due to advancement in distribution technology and the relocation of processing factories to countries with lower labor costs, among other factors. At least 30% of the world's fisheries and aquaculture production volume is for export.
- The World Trade Organization (WTO) Ministerial Conference held in June 2022 adopted the protocol of amendment to the WTO agreement inserting the Agreement on Fisheries Subsidies that provides for the ban on subsidies leading to IUU fishing and the general ban on subsidies that facilitate the depletion of those resources that have already been overfished.

Trends in the World's Annual Per-Capita Consumption of Fish and Fishery Products as Food

<By region>



<Major countries and regions>

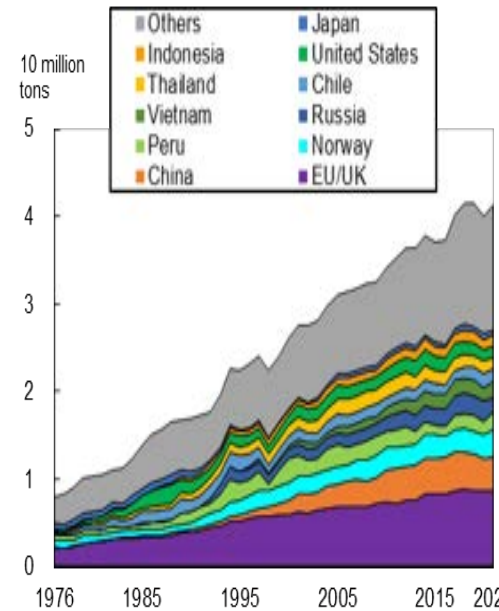


Sources: Prepared by the Fisheries Agency, based on the FAOSTAT (Food Balance Sheets) (FAO) (other than Japan) and the Food Balance Sheet (the Ministry of Agriculture, Forestry and Fisheries) (Japan)

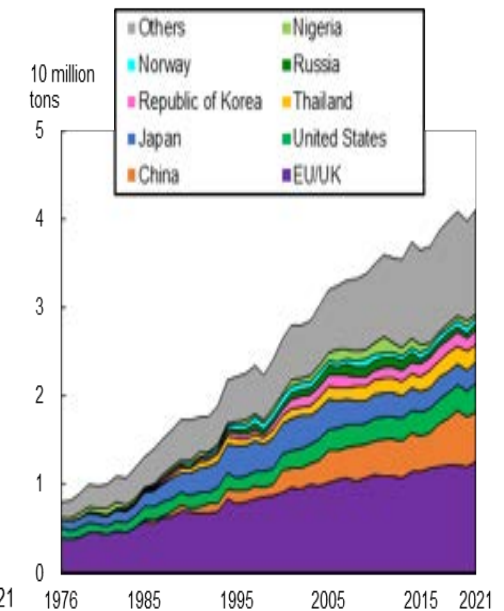
Notes: 1) "Gross food" refers to the amount of fish and shellfish for human consumption, including disposal volume.
2) Central and South America includes the Caribbean.

Trends in the Trade Volumes of Fish and Fishery Products

<Export>



<Import>



Source: Prepared by the Fisheries Agency, based on the Fishstat (Global fish trade) (2018 and before) and the Fishstat (Global aquatic trade) (2019 and beyond) (FAO)

Note: The volume of EU imports and exports includes the volume of trade within the EU.



(3) International Resource Management

i. Trends in Regional Fisheries Management Organizations and Developments Toward Eliminating IUU Fishing

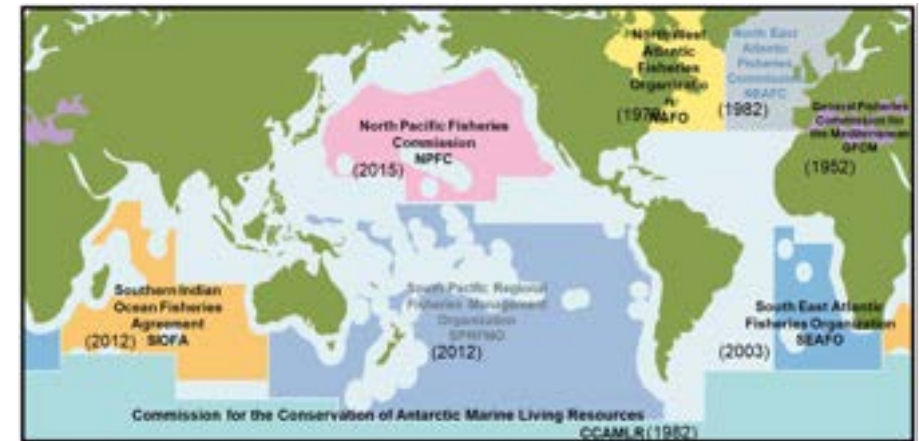
- Global tuna and tuna-like species resources are managed by five regional fisheries management organizations (RFMOs), and Japan is a member of all of them.
- The efforts of the Western and Central Pacific Fisheries Commission (WCPFC) in Pacific bluefin tuna resource management since 2015 have led its spawning stock biomass to be on a recovery path.
- In the 2023 annual meeting, among other matters, the extension of the upper limit on the catch of Pacific bluefin tuna under a special measure to increase the catch limit by 1.47 times was adopted following the reclassification of Pacific bluefin tuna into the category of large fish from small fish.
- The North Pacific Fisheries Commission (NPFC) manages fisheries resources on the high seas of the North Pacific, such as Pacific saury, chub mackerel, and North Pacific armorhead.
- The annual meeting held in March 2023 agreed to set a TAC of Pacific saury on the high seas at 150,000 tons for 2023 and 2024 (25% reduction from 2022).
- Regional fishery management organizations have been promoting initiatives toward preventing, deterring, and eliminating IUU fishing internationally, such as listing fishing vessels and carriers that engaged in IUU fishing and establishing a catch documentation scheme.
- Under the Act on Ensuring the Proper Domestic Distribution and Importation of Specified Aquatic Animals and Plants enforced in December 2022, the attachment of certificates, etc., issued by foreign government agencies has become mandatory when specified aquatic animals or plants are imported, for the sake of prevention of IUU fishing on an international scale.

Tuna Regional Fisheries Management Organizations (tRFMOs) and Waters Covered



note: The years in parentheses are the years in which the relevant treaties took effect.

Major Regional Fisheries Management Organizations Managing Resources Other than Tuna and Skipjack, and Waters Covered



Notes: 1) Currently, Japan is not a member of the SPRFMO or NEAFC. Japan withdrew from the GFCM in 2020.

2) The years in parentheses are the years in which the relevant treaties took effect.

ii. Bilateral Relations in Fisheries

- Due to the relationship between the Japanese and Russian governments, fishing vessels of both the countries are operating under conditions decided through negotiations based on the Japan-USSR Offshore Fishery Agreement, the Japan-USSR Fishery Cooperation Agreement, and the Kaigara Island Kelp Agreement.
- With regard to negotiations based on the Framework Agreement on Fishery Operations in the Waters Surrounding the Northern Islands, the Russian side has not taken part in talks since and including those concerning fishery operations during 2023.
- Mutual fishing access between Japan and Korea has been suspended at present. Approaches are continuously taken to resolve the problem of Korean fishing vessels occupying certain fishing grounds in the provisional zone.
- Mutual fishing access between Japan and China has been suspended at present. Approaches are continuously taken to resolve the problem of illegal fishing by Chinese fishing vessels in waters around the Yamato Bank in the Sea of Japan. Furthermore, in order to prevent illegal fishing in those waters, the Fisheries Agency deploys fisheries inspection vessels intensively in the waters and responds in cooperation with the Japan Coast Guard.
- For the 2024 fishing season, Japan and Taiwan have agreed to continue applying the operation rule whose application has been continued since the 2019 fishing season.
- In the EEZs of the Pacific Island countries, the severity of fishing conditions has increased due to fishing fee hikes, the local landing of catches, and the like. Efforts are being made to secure stable operations on overseas fishing grounds through overseas fishery cooperation, etc.

(4) Developments Concerning Whaling



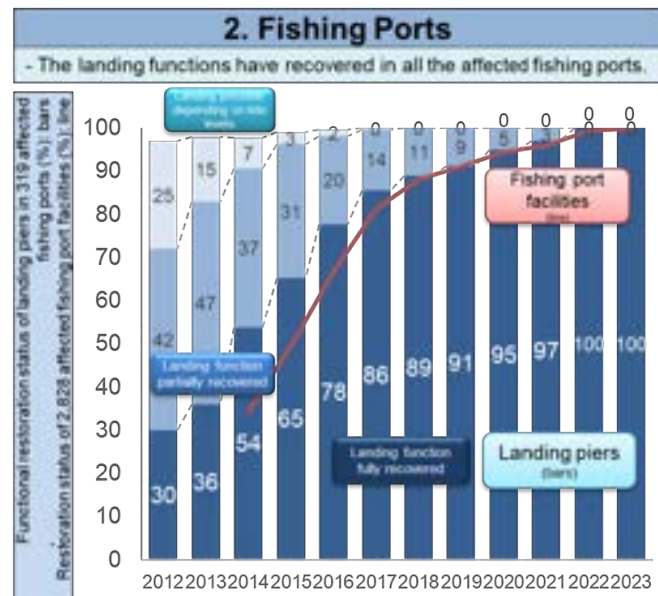
- Japan withdrew from the International Convention for the Regulation of Whaling (ICRW) at the end of June 2019 and resumed commercial whaling of large whales in July of the same year.
- Necessary measures are being taken based on the “Basic Policy of Measures for Ensuring the Sustainable Use of Whales” formulated in October 2020.
- Japan conducts scientific research on whales in cooperation with international organizations such as the International Whaling Commission (IWC), thereby contributing to the management of whale stocks based on scientific knowledge.

Chapter 5 Restoration/Reconstruction After Large-Scale Disasters and Developments Concerning Discharge of ALPS Treated Water into the Sea

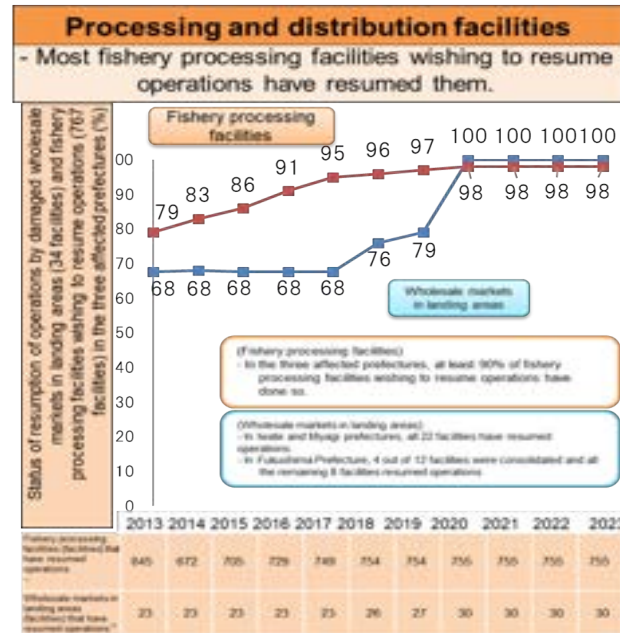
(1) Status of Restoration/Reconstruction After the Great East Japan Earthquake in the Fisheries Industry

- Since the Great East Japan Earthquake struck in March 2011, the restoration of fishing port facilities, fishing vessels, aquaculture facilities, fishing grounds, and other facilities has been carried out in the affected areas. Fisheries-related infrastructures such as fishing port facilities and fishery processing facilities have mostly been restored in full.
- On the other hand, the recovery of the fishery processing industry's sales remains an issue. The government continues to support initiatives such as the recovery/development of markets for the fishery processing industry.

Summary of Restoration/Reconstruction of the Fisheries Industry Following the Great East Japan Earthquake (as of March 2024)

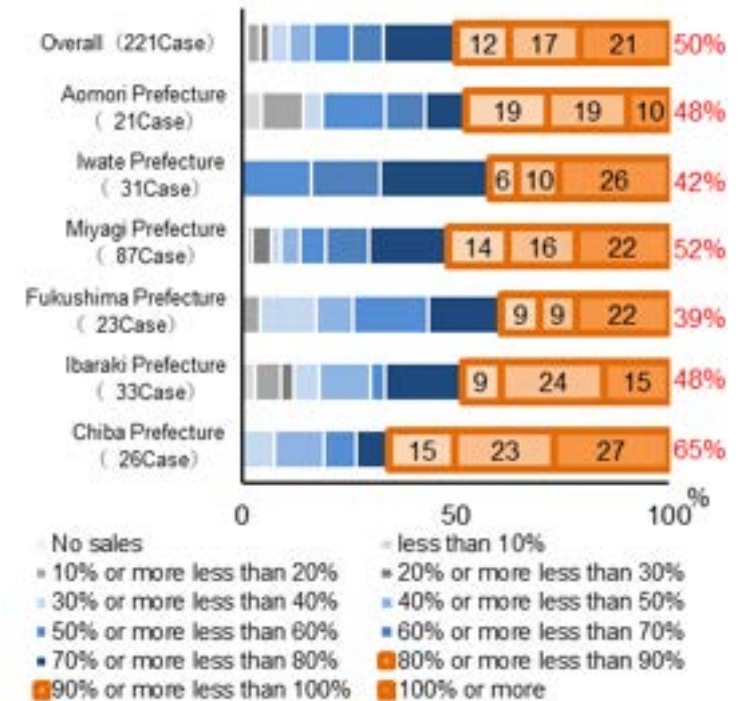


* Fishing port facilities mean piers, breakwaters, anchorages, roads, etc.
* The number of affected fishing ports is the total number for seven prefectures.



* With respect to fishery processing facilities, the figures for 2013 through 2017 are those as of the end of December; the figure for 2018 is that as of the end of September; and the figures for 2019 through 2023 are those as of the end of December.
* With respect to wholesale markets in landing areas, the figure for 2013 is that as of the end of December; the figures for 2014 through 2019 are those as of the end of February of the respective following years; and the figure for 2020 is that as of the end of January of the following year. Wholesale markets in Fukushima Prefecture were consolidated from 12 to 8 facilities in 2020, all of which resumed operation. Because the status of resumption of operation reached 100%, no survey has been conducted since 2021.

Status of Sales Recovery by Fishery Processors



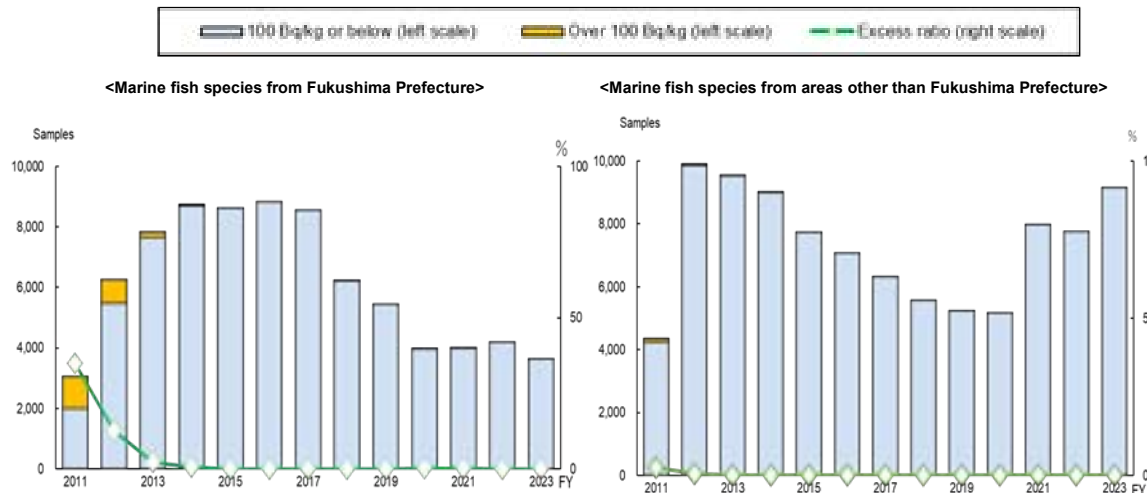
Source: Results of the 10th Questionnaire Survey on the Status of Fishery Processors' Reconstruction After the Great East Japan Earthquake" (the Fisheries Agency)

Note: The percentages in red color represent the percentages of fishery processors that recovered at least 80% of their pre-earthquake sales.

(2) Response to the Impact of the Accident at TEPCO's Fukushima Daiichi Nuclear Power Plant

- The national government, in cooperation with relevant prefectural governments and fisheries-related organizations, monitors radioactive materials in fish and fishery products in order to ensure the safety of such products.
- The results of radioactive material monitoring are published, and those fish and fishery products whose monitoring results exceed the Japanese maximum levels in food (JMLs) are subject to requested voluntary restraint on distribution or ordered restriction of distribution. During FY2023, there was no sample exceeding the JMLs in Fukushima Prefecture. Also in other prefectures, there have been no marine species samples exceeding the JMLs since September 2014 and no freshwater species samples exceeding the JMLs since FY2021.
- In cooperation with the International Atomic Energy Agency (IAEA), efforts have been made to improve the reliability and transparency of data. In a report published by the IAEA in December 2023, the IAEA stated, "A continued high level of accuracy and competence on the part of the Japanese laboratories involved in the analyses of radionuclides in marine samples for the Sea Area Monitoring programme." In the joint ocean monitoring in FY2023, in addition to the IAEA Marine Environment Laboratories, analytical laboratories from Canada, China, and South Korea participated and confirmed the conditions of processes from sample collection to pretreatment and the analytical procedures. Currently, analysis is being conducted by each participating organization.
- Limited scale of fishing and sale on trial basis operations were conducted until the end of March 2021 in order to obtain basic information for the full-scale resumption of fishery operations. After the limited scale of fishing and sale on trial basis, voluntary suspension on fishery operations have been lifted in a stepwise manner, and the landing volume recovered to 6,530 tons (preliminary figure) in 2023.
- Import restrictions on Japanese food products had been imposed in 55 countries and regions. As a result of efforts made to encourage the governments of those countries and regions to abolish the restrictions, some countries and regions such as the EU abolished their import restrictions in FY2023, and the number of countries and regions that still maintain their restrictions has been reduced to seven.

Monitoring Results of Radioactive Materials in Fish and Fishery Products (Radioactive Cesium)



Note: As of the end of March 2024

Outline of Import Restrictions on Food Products, etc., Imposed by Foreign Countries and Regions in Connection with the Nuclear Power Plant Accident (As of January 2024)

Imposed import restrictions, Number of Countries/Regions			
Imposed import restrictions after the accident	Countries/Regions that have abolished restrictions		48
	Still imposing import restrictions	Requesting all or some prefectures to submit inspection certificates, etc.	2
	7	Suspension of import from some prefectures, etc.	5
55	Russia, French Polynesia		
	China, Hong Kong, Macau, the Republic of Korea, Taiwan		

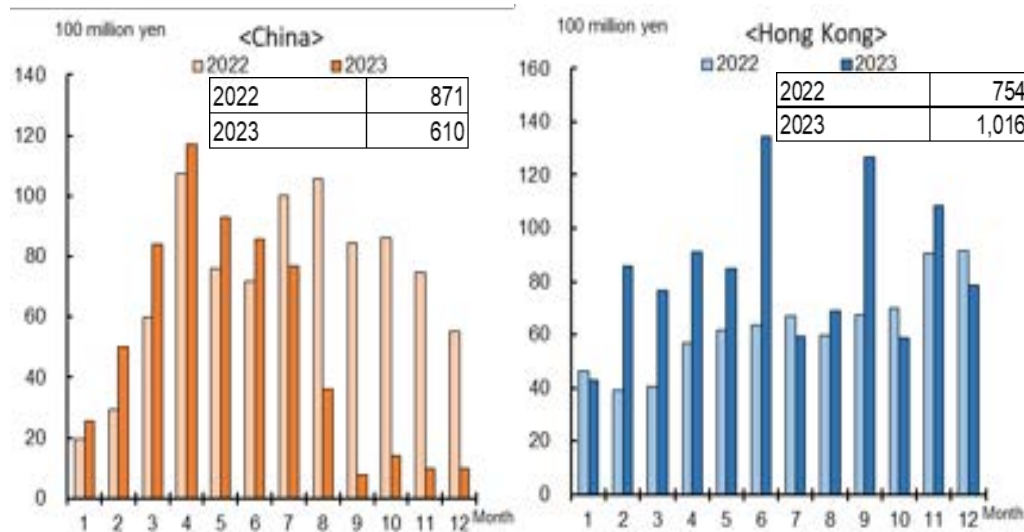
* The countries and regions are classified according to the substance of their restrictions. Prefectures and items subject to restrictions differ depending on countries and regions.

* Following the discharge of ALPS treated water into the sea, China and Russia suspended the import of fish and fishery products from all prefectures; Hong Kong suspended the import of fish and fishery products, etc., from 10 prefectures; and Macao suspended the import of fresh food, etc., from 10 prefectures.

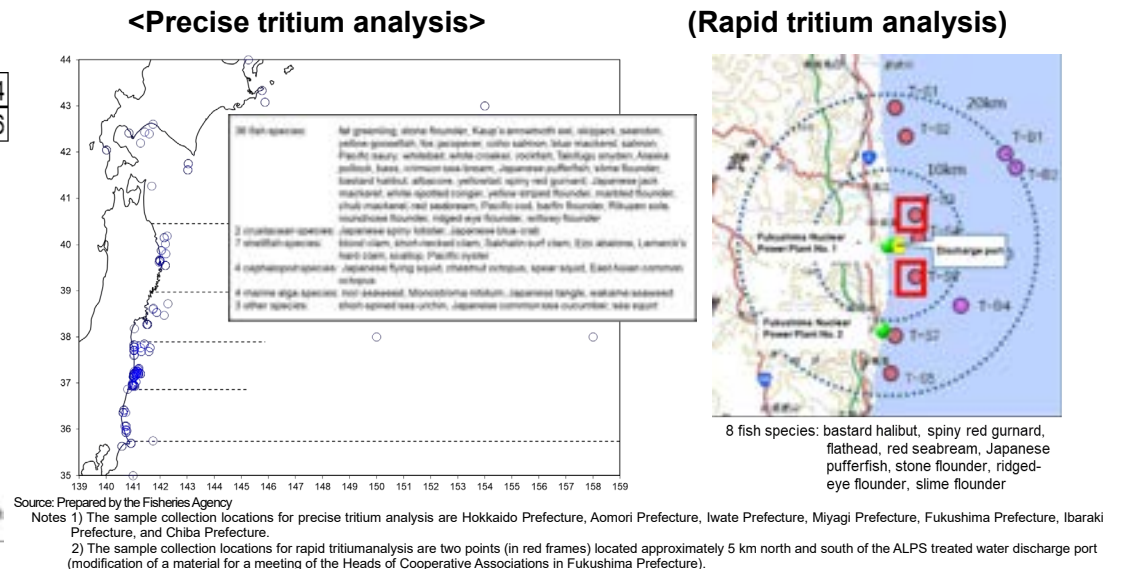
(3) Developments Concerning Discharge of ALPS Treated Water into the Sea

- Since the commencement of discharge of ALPS treated water into the sea on August 24, 2023, China and Russia have suspended the import of fish and fishery products from all prefectures, and Hong Kong and Macao have suspended the import of fish and fishery products, etc., from 10 prefectures. The value of fish and fishery products exported to China has dropped sharply since August due to its import restrictions being tightened, and the value in 2023 declined approximately 30% from the previous year.
- In addition to requesting immediate lift of scientifically unjustified import restrictions and providing support based on, among other matters, funds of 30 billion yen and 50 billion yen set aside prior to the commencement of sea discharge, a policy package “Protection of the Fisheries Industry” consisting of the following five pillars was formulated on September 4, 2023 on the basis of, for example, the establishment of an urgent support program with a fund of 20.7 billion yen to diversify the dependence on specific countries and regions: measures to expand domestic consumption and sustain production; addressing the impact of harmful rumors in and outside Japan; measures to switch export destinations; measures to strengthen domestic processing systems; and prompt and careful provision of compensation.
- Additionally, in November 2023, a supplementary budget was also allocated to support, for example, the development of HACCP-compliant facilities and equipment necessary for export expansion, the purchase and temporary storage of raw materials for processing, and the development of regional processing bases.
- In addition to the monitoring analysis of fish and fishery products conducted to inspect them for tritium (precise tritium analysis), which has been conducted since before the commencement of sea discharge, the Fisheries Agency introduced a method enabling the short-time analysis of tritium (rapid tritium analysis) in August 2023, and publishes analysis results within two days after the sample collection day. The results of both precise tritium analysis and rapid tritium analysis have been lower than the detection limit and have shown no change between before and after sea discharge.

Trends in the Value of Fish and Fishery Products Exported to China and Hong Kong



Sampling Locations for Monitoring of Radioactive Materials in Fish and Fishery Products (Tritium)



(4) Restoration/Reconstruction After the 2024 Noto Peninsula Earthquake

i. Situation of Damage in the Fisheries Industry

- On January 1, 2024, an earthquake centered in the Noto region of Ishikawa Prefecture occurred.
- The earthquake caused strong shaking with a maximum intensity of 7 on the Japanese scale. The ground was reported to have been uplifted up to 4 m, and tsunamis were also generated, resulting in extensive damage to the fisheries industry, primarily in Ishikawa Prefecture.
- With respect to the number of cases of damage in the fisheries industry, at least 291 vessels were capsized, sunk, ran aground, or otherwise damaged, and 73 fishing ports suffered damage as their port facilities (breakwaters, piers, shallow draft wharves, etc.) were impacted. In addition, with respect to fishing gear, there were at least 90 cases of damage, such as damage to fixed shore nets. In the case of shared facilities, there were at least 96 damaged facilities such as fishery cooperative association offices, fuel supply facilities, and ice making facilities, and there were at least eight cases of devastated aquaculture facilities.

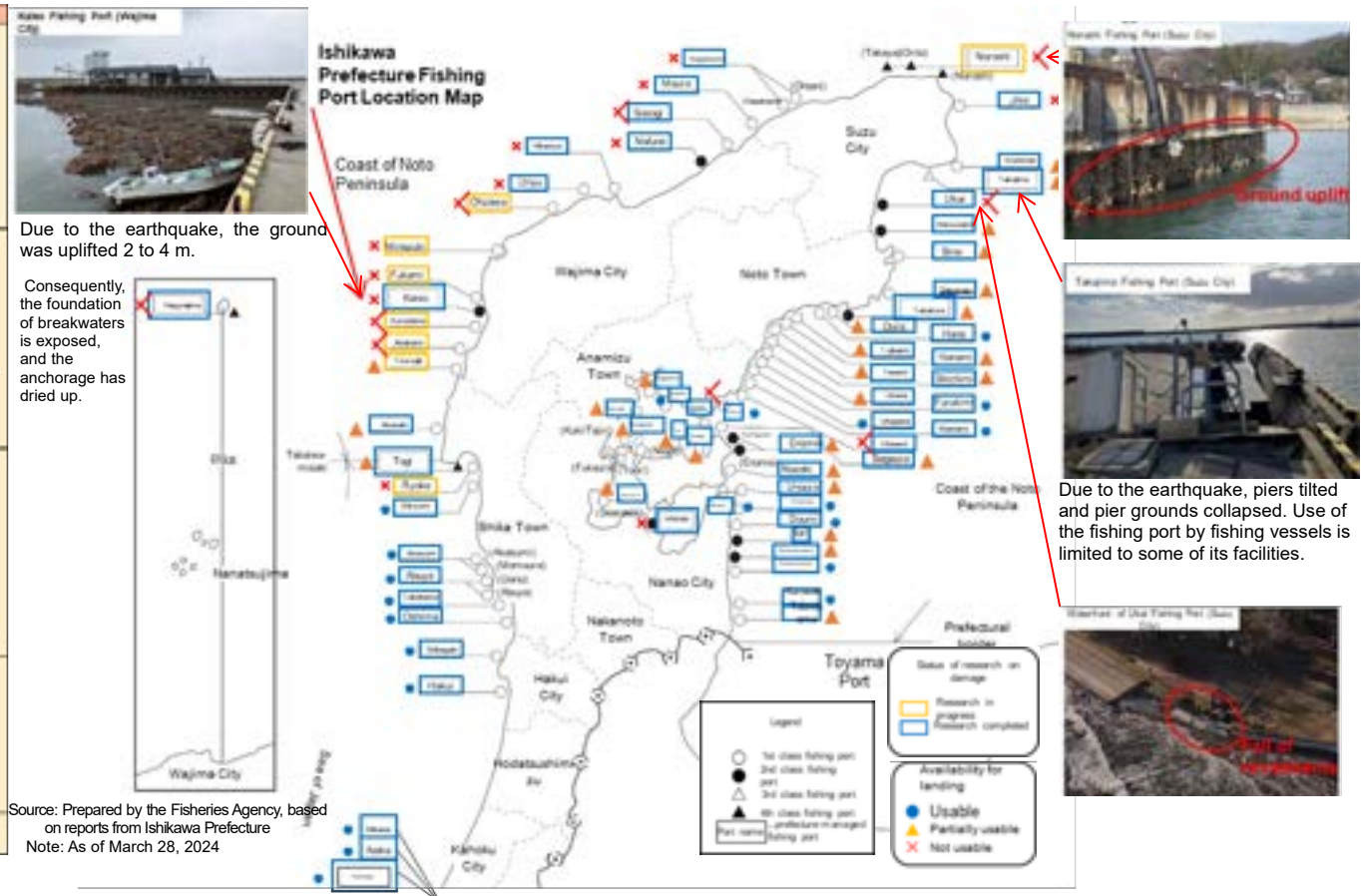
Situation of Fisheries-Related Damage

Main damage	Main affected regions
Fishing vessels	At least 291 vessels
Fishing port facilities	73 fishing ports
Wholesale markets, processing facilities, etc.	At least 96 facilities
Aquaculture facilities	At least 8 cases
Fishing gear	At least 90 cases

Ishikawa Prefecture	<ul style="list-style-type: none"> At least 285 fishing vessels were damaged. 60 fishing ports were damaged. Water intrusions and flooding occurred at 27 locations of the Ishikawa Prefecture Fishery Cooperative Association, and their freezing and refrigeration facilities, warehouses, and sorting machines were also damaged. The Noto City Public Local Wholesale Market sustained damage such as a water intrusion and a ground depression. Part of the ceiling materials of the wholesale hall and low-temperature storage facilities in the Kanazawa City Central Wholesale Market collapsed. Oyster and pearl oyster aquaculture facilities were damaged.
Toyama Prefecture	<ul style="list-style-type: none"> 8 fishing vessels were damaged. 10 fishing ports were damaged. The buildings and fuel tanks of fuel supply facilities (diesel, ice making and storing facilities and juvenile fish production facilities) were damaged. Some uneven surfaces appeared in the Noto Local Wholesale Market of the Toyama City Fishery Cooperative Association, and the Shimane Fishery Cooperative Association Local Wholesale Market suffered a water intrusion. 45 sets of fixed shore nets were damaged or swept away. Roped fish cages and gill nets were swept away (36 cases).
Niigata Prefecture	<ul style="list-style-type: none"> 17 fishing vessels were damaged. 3 fishing ports were damaged. Uninhabited occurred at goods handling sites, vessel berths were exposed to water, and shutters at processing plants were damaged, among other forms of damage. 63 nets and shrimp cages were swept away or damaged, the anchor ropes of fixed shore nets were severed, and fishing nets stored on land were swept away.
Fukui Prefecture	<ul style="list-style-type: none"> 1 fishing vessel was damaged.

Source: Prepared by the Fisheries Agency, based on reports from Ishikawa Prefecture, Toyama Prefecture, Niigata Prefecture, and Fukui Prefecture
 Note: A compilation of the details on damage reported by the prefectures by March 29, 2024

Status of Damage Surveys of Fishing Ports in Noto Peninsula



ii. Details on Supporting Measures for Restoration/Reconstruction After the 2024 Noto Peninsula Earthquake

- On January 11, 2024, the government designated the 2024 Noto Peninsula Earthquake as a disaster of extreme severity. In relation to fisheries, the affected municipalities' and other relevant parties' burden of disaster recovery projects for fishing ports and fisheries industry shared facilities will be mitigated.
- On the 25th day of the same month, the government compiled a "Package to Support the Lives and Livelihoods of the Affected People." For fisheries-related support, the package seeks to support the early restoration of fishing ports, coasts, etc. by ensuring the early implementation of surveys on damage caused to fisheries infrastructures, and also incorporates support for fishers' and other relevant parties' initiatives to restore fishing grounds and for initiatives toward the restoration of fishing vessels, fishing gear, aquaculture facilities, and fisheries industry shared facilities (such as goods handling facilities and freezing and refrigeration facilities).

Package to Support the Lives and Livelihoods of the Affected People (Decided on January 25, 2024)

Fisheries-Related Support

- Support for **early restoration** of fishing ports, coasts, etc., through disaster recovery projects, etc., by examining restoration policies in light of the vision for the future of the region and by conducting damage surveys at an early stage, such as **urgent surveys on the actual damage condition of fisheries infrastructures** (the government subsidy ratio raised due to the designation as a disaster of extreme severity: from 70% to 83%* for public civil engineering facilities such as fishing ports), (efficient assessment by utilizing the pre-assessment construction system and raising the maximum amount that can be granted through desk-based assessment)
- Implementation of **measures to strengthen fishing port functions**, etc., such as UMIGYO promotion utilizing satoumi (community sea) resources in conjunction with disaster recovery (government subsidy ratio of 1/2, etc.)
- Support for **initiatives implemented by fishers, etc., for the restoration of their fishing grounds** (fixed amount)
- Support for initiatives to restore **fishing vessels, fishing gear**, or aquaculture facilities, for initiatives to **restore fisheries industry shared facilities** such as goods handling facilities and freezing and refrigeration facilities, and for initiatives to secure raw materials for processing, among other initiatives (government subsidy ratio of 1/2, etc.)
- **Support for training programs** for disaster-stricken fishers, etc., temporarily employed by other fishing vessels or fishers, etc., in other areas until those disaster-stricken fishers, etc., can resume their fisheries (a maximum of 188,000 yen/month for 2 years); and **financial support** for disaster-stricken fishers, etc. (such as substantively interest-free loans for the first 5 years of loaning and increased loan limits on safety-net loans, etc., for agriculture, forestry, and fisheries)



Damage to fishing ports (sea-bed uplift) and fishing vessel capsizing

* Average of the past 5 years' results

(Appendix) Main KPIs for Fisheries Policy

Sector	KPI	Status of progress (as of the end of 2023)	Plan, etc., in which the KPI is stated
Fisheries	Aims to recover catch to the same level as 2010 (4.44 million tons) by 2030 (Reference: Production in 2018 was 3.31 million tons).	Catch (excluding marine algae and marine mammals) in 2022 was 2.92 million tons, which was 66% of the goal.	Strategy for Sustainable Food Systems: MIDORI (formulated in May 2021), and New Roadmap for Promoting Resource Management (decided in March 2024)
Aquaculture	Aims to achieve an artificial seedling rate of 100% in aquaculture of Japanese eel, bluefin tuna, etc., and to establish a sustainable aquaculture production system without any burden on natural resources by switching all fish feed to formula feed by 2050.	The artificial seedling rate (in aquaculture of Japanese eel, bluefin tuna, great amberjack, and yellowtail) in 2022 was 4.4%. The rate of formula feed in 2022 was 47%.	Strategy for Sustainable Food Systems: MIDORI
Aquaculture	Aims to achieve the following production volumes of the strategic aquaculture items by 2030. - Yellowtail: 240,000 tons - Red seabream: 110,000 tons - Bluefin tuna: 20,000 tons - Salmon and trout: 30,000-40,000 tons - New fisheries species (groupers, etc.): 10,000-20,000 tons - Scallops: 210,000 tons (- Pearls (2027 goal): 20 billion yen)	The production volumes in 2022 were as follows (% indicates comparison with the goal). - Yellowtail: 110,000 tons (46%) - Red seabream: 70,000 tons (64%) - Bluefin tuna: 20,000 tons (100%) - Salmon and trout (coho salmon only): 20,000 tons (50%) - Scallops: 170,000 tons (81%) (- Pearls: 18.1 billion yen (90%))	Comprehensive Strategy for the Transformation of Aquaculture Into a Growth Industry (formulated in July 2020, revised in July 2021)
Export	Aims to increase the export value of fish and fishery products to 0.6 trillion yen by 2025 and 1.2 trillion yen by 2030. (Of which the export value of each of the priority export items in 2030 is aimed to be: - Yellowtail: 160 billion yen - Red seabream: 60 billion yen - Scallops: 115 billion yen - Pearls: 47.2 billion yen)	The export value of fish and fishery products in 2023 was 390.1 billion yen, which was 33% of the 2030 goal.	The figures included in the goals for the export value of agricultural, forestry, and fishery products and food in the Basic Plan for Food, Agriculture and Rural Areas (decided by the Cabinet in March 2020) and the Basic Policy on Economic and Fiscal Management and Reform 2020/Follow-up on the Growth Strategy (decided by the Cabinet in July 2020); and the Comprehensive Strategy for the Transformation of Aquaculture into a Growth Industry
Overall fish and shellfish products	FY2032 goals for the self-sufficiency rates of fish and fishery products: - Fish and shellfish for human consumption: 94% - Overall fish and shellfish: 76% - Marine algae: 72%	The self-sufficiency rates of fish and fishery products in FY2022 (estimates): - Fish and shellfish for human consumption: 56% - Overall fish and shellfish: 54% - Marine algae: 67%	Basic Plan for Fisheries (decided by the Cabinet in March 2022)
Overall fish and shellfish products	Aims to establish technologies for electrification and hydrogen battery use for fishing vessels by 2040.	Demonstration of fishing vessels using hydrogen fuel cells is planned in order to establish such technologies.	Strategy for Sustainable Food Systems: MIDORI

FY2024 Fisheries Policy

Structure of “FY2024 Fisheries Policy”

Overview

Focus of measures, fiscal measures, legislative measures, tax measures, financial measures, and policy assessment

I. Steady implementation of fisheries resource management, taking into account changes in marine environments

- Enhancement of research on resources and stock assessment
- Steady promotion of resource management based on the amended Fishery Act
- Enhancement of fisheries enforcement and of the surveillance capability/poaching monitoring system
- Adaptation to changes in marine environments

II. Realization of transformation of fisheries into a growth industry, taking increasing risks into account

- Structural reform, etc., of maritime fisheries
- Transformation of aquaculture into a growth industry
- Business management stabilization measures
- Export expansion and development of fishing ports and fishing grounds to support transformation of fisheries into a growth industry
- Inland water fisheries/aquaculture
- Human resource development
- Work safety measures

III. Promotion of revitalization of fishing communities that support the region

- Seashore regeneration/revitalization
- Restoration/Strengthening of the management foundation of fishery cooperative organizations
- Development of measures for processing, distribution, and consumption
- Fulfillment of multifaceted functions of fisheries and fishing communities
- Conservation of fishing ground environments and maintenance of ecosystems
- Measures for disaster prevention/mitigation and building national

resilience

IV. Measures to be promoted in a cross-sectoral manner for sustainable development of fisheries

- Strategy for Sustainable Food Systems: MIDORI and fisheries policy
- Utilization of smart fishery technologies
- Carbon neutrality

V. Restoration/Reconstruction after the Great East Japan Earthquake and support for the fisheries industry in connection with the discharge of ALPS treated water into the sea

- Steady restoration/reconstruction in the earthquake/tsunami-affected areas
- Impact of the discharge of ALPS treated water into the sea and support for the fisheries industry

VI. Requirements for the comprehensive and systematic promotion of fisheries policies

- Efficient promotion of measures through collaboration among relevant ministries and agencies
- Management and assessment of the progress of measures
- Implementation of measures from a public point of view, taking into account the needs of consumers and the public
- Compilation of statistics in line with policy needs and promotion of the use of such statistics
- Helping business owners and producers become independent and demonstrate their originality and ingenuity
- Efficient and focused operation of fiscal measures

