

Annual Report on the Developments in Japan's Fisheries in FY2002

Part I. Outline of the Developments in Japan's Fisheries

Table of Contents

Introduction

Topics: Major developments in Japan's Fisheries in the Previous Year

1. Implementation of resource restoration plans
2. Mergers of fisheries cooperative associations
3. New round of trade negotiations at the World Trade Organization
4. Sustainable use of living marine resources including whales
5. Development of artificial seed production technology for aquatic creatures
6. Simultaneous renewal of licenses for designated fisheries
7. Establishment of the Basic Law on Food Safety and the Food Safety Commission

I. Special Feature: In Pursuit of Safety and Reliability of Fishery Products

1. Importance of ensuring the safety and reliability of fishery products
2. Basic framework and reinforced measures to ensure the safety of fishery products
 - (1) Basic framework to ensure safety
 - (2) Measures to ensure safety
 - (3) New food safety administration based on risk analysis
3. Active information provisions to dispel anxiety of consumers
 - (1) Change in consumption of fishery products and information on the products
 - (2) Measures to ensure the reliability of labels

II. Developments in Japan's Fisheries since FY2001

1. Supply and demand for fishery products in Japan
 - (1) Domestic fishery production
 - (2) International trade of fishery products
 - (3) Processing and marketing of fishery products
 - (4) Consumption of fishery products and self-sufficiency rate
2. International developments surrounding the Japanese fisheries Industry
 - (1) Bilateral fishery relations

(2) Multilateral fishery relations

3. Fishery business management

(1) Trends concerning fishery operators

(2) State of fishery business management

(3) State of fishery workers

(4) Fisheries cooperative associations

4. Current state of fishing villages and efforts for revitalization

(1) Measures to improve the living conditions of fishing villages and to revitalize them

(2) Coexistence and exchanges between cities and fishing villages

5. Diverse functions of fisheries and fishing villages

Conclusion

Introduction

This annual report (White Paper) concerning the developments in Japan's fisheries in the 2002 fiscal year is the second White Paper issued under the Basic Law, on Fisheries Policy which was established in June 2001.

The basic principle of the law, "stable supply of fishery products," would not be realized without the understanding and cooperation of not only the people engaging in the fisheries administration and industry but also of ordinary Japanese people as a whole. The White Paper is expected to play an increasingly important role of establishing an introductory connection between consumers and the fisheries administration.

In order to make the White Paper more accessible and interesting to the public, we have reviewed the conventional style of the White Paper. Last year, we dedicated the opening pages of the White Paper to an article titled "Topics: Major Developments in Japan's Fisheries in the Previous Year" and also started Chapter I with a special feature. We have applied this same structure to the White Paper for the 2002 fiscal year and have done our best to write in clear and simple language to make the paper more understandable.

The opening article about topics describes seven major developments related to the fisheries in the past year, including the resource restoration plans implemented since the 2002 fiscal year.

Chapter I is started with a special feature titled "In Pursuit of Safety and Reliability of Fishery Products," reflecting the importance of fishery products for the Japanese diet and rising concern among Japanese people about food safety driven from the outbreak of food-related problems including Bovine Spongiform Encephalopathy (BSE) in 2001. The special feature summarizes the basic framework to ensure the safety of fishery products, efforts made at production sites for food safety, and measures to dispel consumer anxiety.

Chapter II describes the supply and demand for fishery products in Japan, the international developments surrounding the Japanese fisheries industry, fishery business management, and other trends in the Japanese fisheries in and after FY2001.

Topics: Major developments in the Fisheries in the Previous Year

1. Implementation of resource restoration plans

Since the 2002 fiscal year, resource restoration plans have been carried out for fisheries resources around Japan.

Many species of fisheries resources have decreased in number in coastal waters, which used to be abundant. The resource restoration plans are designed to help recover the status of fisheries resources through cooperation among the national government, local governments, and a wide range of people engaging in fishery activities by taking necessary measures in a systematic and comprehensive way.

Many activities have started toward the development of the plans in many parts of Japan. Four plans were established and implemented in FY2002 by people concerned, which were the plans for Spanish mackerel in the Seto Inland Sea, for resources subject to small trawl fishery in the Ise Bay and Mikawa Bay, for flathead flounders in the west part of the Japan Sea, and for offshore flatfish in the Northern Pacific Ocean. These species have been subject to the system of total allowable effort (TAE) in order to make sure they are protected.

Resource restoration plans sometimes require fishery operators to suspend fishing or reduce the number of fishing vessels. As these requirements directly damage their financial earnings, the parties concerned need to make thorough discussion about the details of the plans in order to establish feasible and sufficiently pre-arranged plans. More resource restoration plans should be established and carried out in the future in order to recover other declining fishery resources as well.

Implementation of resource restoration plans

Resource Restoration Plan for Flathead Flounder (and Snow Crab)

(Targeted) resources: Flathead flounder, (Snow crab)
Types of fisheries : Offshore trawl fishery, and small – scale trawl fishery
Measures: expansion of the protected zones, Introduction of improved fishing equipment. etc.. etc.

Resource Restoration Plan for Offshore Flatfish in the Northern Pacific Ocean

(Targeted) resources: Roughscale flounder, willow flounder, bighead thornyhead, and yellow goosfish
Types of fisheries : Offshore trawl fishery, and small – scale trawl fishery
Measures: Designation of protected zones, etc.

Resource Restoration Plan for Resources Subject to Small Trawl Fishery in the Ise Bay and Mikawa Bay

(Targeted) resources: Ocellate puffer, mantis shrimp, and conger myriaster
Types of fisheries: Small – scale trawl fishery
Measures: restriction on the catches of small-size fish, designation of fishing suspension period, and release of seeds, etc.

Resource Restoration Plan for Spanish Mackerel in the Seto Inland Sea

(Targeted) resources: Spanish mackerel
Types of fisheries : Drift net fishery, etc.
Measures: Designation of fishing suspension period, use of fishnet with larger mesh, limitations on the amount of catches, and release of seeds, etc.



2. Mergers of fisheries cooperative associations

In the 2002 fiscal year, a record-high 132 fisheries cooperative associations merged (as of March 1, 2003) and 23 new ones were established. Fisheries cooperative associations are expected to play an important role as central organizations of fisheries operations and fishing villages to achieve such goals as the stable supply of fishery products and the revitalization of fishing communities. Although fisheries cooperative associations have been voluntarily trying to reinforce the effectiveness of associations through mergers and other means, they are far from attaining their target set five years ago (FY1998) that the number of associations should be reduced to about 700 by the end of 2002. There are still about 1,600 associations as of March 2003 because mergers have been hindered by emotional conflicts over fishing rights management and also by disparities in financial situation among neighboring associations.

Recently, however, the movement toward mergers have rapidly activated among associations that have seen operating revenue decrease because of catch decrease ,etc. and anxiety about post-merger fishing right management disappear thanks to the amendment of the Fisheries Law and other laws in 2001.

In recent years, fisheries cooperative associations that cover larger areas have been established one after another such as the Akita fisheries cooperative association and Oita fisheries cooperative association, which cover the whole of the respective prefectures, and Kumano-nada fisheries cooperative association, Shimano-kuni fisheries cooperative association, and Toba-isobe fisheries cooperative association. At a national conference of the representatives of fisheries cooperative associations held in November 2002, participants adopted the resolution that stated that the associations would never give up on carrying out reform to make associations self-sustainable as soon as possible and also to make their financial situations healthier. Taking account of these movements, the expiration date of the Law to Promote Mergers between Fisheries Cooperative Associations was postponed for a period of five years commencing from the end of March 2003 with the hope of further promoting mergers.

3. New round of trade negotiations at the World Trade Organization

At the WTO Ministerial Conference held in Doha, Qatar in November 2001, a decision was made to hold a new round of negotiations for the next three years to establish a set of new rules for world trade. The negotiations are scheduled to handle such problems as fisheries subsidies and hindrances limiting market accessibility such as customs duties on fishery products.

In this context, Japan submitted to the WTO its “Proposal on Sustainable Development and the Trade of Forest and Fishery Products” in an effort to establish trade rules that promote sustainable development, the importance of which was acknowledged in Doha as well.

Fishery resources are limited natural resources which will be exhausted without proper management. A decrease in fishery resources has been particularly noticeable in recent years. Under such circumstance, unrestricted liberalization of fisheries trade would promote overexploitation and prevent sustainable development of the fisheries industry. Japan therefore stated in its proposal that the WTO should study ideal systems of fisheries trade that contribute to sustainable use of fishery resources in consideration of diverse roles of fisheries and fishing villages.

The proposal also stated that the WTO should decide how to respond to a call for a reduction or elimination of fisheries subsidies in consideration of a more positive roles of fisheries subsidies that contributes to the sustainable use of resources, taking due account of the results of the discussions held at the Food and Agriculture Organization (FAO) and other specialized agencies.

Despite the disadvantaged position of Japan in the world where many countries are exporters of fishery products and eager to see fisheries trade more liberalized, Japan plans to engage in WTO negotiations based on the concept of sustainable use of fishery resources.

4. Sustainable use of living marine resources including whales

An annual conference of the International Whaling Commission (IWC) was held in May 2002 under a convention designed to promote proper conservation and effective use of whale stocks and development of the whaling industry. In addition, a conference by signatory countries of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was held in November 2002 under the convention designed to restrict international trade of endangered or threatened species.

The issue of whale stock management tends to be handled based on factors other than scientific facts. Such unscientific approach is reflected in IWC’s introduction of a moratorium on commercial whaling and CITES’s listing of large whales in an appendix, which even bans commercial whaling of species that are currently so abundant in number that resumption of whaling under certain conditions would pose no threat of extinction, according to a report by the IWC Scientific Committee.

As living marine resources have the ability to reproduce themselves, they will not be

exhausted as long as they are managed based on scientific evidence.

The fisheries industry could not exist without benefiting from living marine resources. Human beings have consumed living marine resources over the ages and have developed dietary customs and cultures depending on their respective living habitats and environments.

In order to advocate the sustainable use of marine resources based on scientific evidence, Japan plans to make further efforts to voluntarily and actively engage in international resource management and to promote deeper understanding of the international community on the importance of the sustainable use.

5. Development of artificial seed production technology for aquatic creatures

In June 2002, the Fisheries Laboratory at Kinki University became the first in the world to succeed in completing the lifecycle of blue-fin tuna under artificial rearing conditions.

Blue-fin tuna and eel are two species artificial seed production technology of which have long been desired to be established.. Although the development of such technology was difficult and time-consuming, the laboratory has been farming and studying blue-fin tuna since 1970 and has succeeded in raising young blue-fin tuna to the adult stage of their lifecycle and having them spawn, and then raising fry from the eggs to the adult stage. The laboratory has recently succeeded in having adult fish spawn, finally completing the lifecycle of blue-fin tuna starting from spawning, followed by hatching, larvae, fry, young fish, adult fish, and through to spawning once again.

As well, artificial seed production technology for eels has been developed to such an extent that wild-caught have been successfully raised to the stage of adults producing spawn, and then the spawns have hatched and been raised to pre-leptocephali stage and to leptocephali stage. Further research is underway for the next step of raising the leptocephali to become elvers.

The Japanese sea farming and aquaculture industries have developed with the advancement of artificial seed production technology, which has been developed for about 80 fish species including sea bream and left-eyed flounder. The aquaculture production of some of those species, such as sea bream, has increased several times in volume.

It would be desirable to further develop artificial seed production technology so that it can be applied to many fish species in order to not only stabilize aquaculture production and expand fish species produced by aquaculture but also to maintain and increase natural fishery resources.

6. Simultaneous renewal of licenses for designated fisheries

In August 2002, licenses for designated fisheries were simultaneously granted to 2,489 fishing vessels engaging in 8 types of fishery operations including offshore trawl fishery, large/medium-scale purse seine fishery, and deep sea tuna fishery.

Such simultaneous grant of licenses is carried out every five years under the Fisheries Law by the Minister of Agriculture, Forestry and Fisheries. Prior to the grant of licenses, the minister must decide, from the viewpoint of national policy, the maximum number of vessels to be approved for each major type of fishery of the operating areas and resource levels and then publicize it. Simultaneous grant of licenses within these limits is very important in establishing a fishery production system suitable for the respective resource levels and also in ensuring sustainable use of fishery resources.

In consideration of changes in the Japanese fisheries industry in recent years, the system of simultaneous grant of licenses has been reviewed and amended including being made applicable to additional fisheries, number of vessels of which should be centrally managed by the national government because of their large effects on the fishery resources concerned and also on other types of fisheries.

The publicized number of fishing vessels (Maximum number of vessels to be approved) of types of fisheries which have been designated conventionally was reduced by about 20% from the level five years ago. The reduction reflected the need for continuous restraint on fishing efforts due to the low levels of fishery resources as a whole. At the same time, various rules for these designated fisheries were partially deregulated through abolition of the specification of vessel structure and simplification of classifications of vessels by gross tonnage. Such deregulation was made with due consideration of its effects on resource management and coordination of fisheries in order to enable fishery operators to manage their business more freely.

The above-mentioned changes are, in combination with the already-made reform of the license succession system, expected to contribute to promoting effective and stable fisheries management and also to revitalize the designated fisheries.

Review of Designated Fisheries (April 2002) and Simultaneous Renewal (August 2002)

Remaining designated fisheries

**Number of ships subject to simultaneous renewal (excluding the fisheries marked with *):
1,534 (2002), 1,927 (1997)**

- Offshore trawl fishery
- West water trawl fishery
- Deep sea trawl fishery*
- Large/medium-scale purse seine fishery
- Large- scale whaling*
- Small- scale whaling*
- Mother ship-type whaling*
- Medium- scale salmon drift net fishery
- Deep sea tuna fishery
- Offshore tuna fishery (20 tons or heavier)

Excluded fisheries

- North sea long line and/or gill net fishery
- Mother ship-type trawl fishery
- Mother ship-type tuna fishery
- Mother ship-type salmon fishery
- Mother ship-type crab fishery
- Goldlip fishery

Added fisheries

Number of ships subject to simultaneous renewal: 955 (2002)

- North Pacific saury fishery
- Japan Sea red snow crab fishery
- Squid jigging fishery
- Offshore skipjack and tuna fishery (at least 10 tons but less than 20 tons)

: Designated fisheries before renewal

: Designated fisheries after renewal

(Note)

The fisheries marked with * are not subject to simultaneous renewal.

The licenses for those fisheries are reviewed annually because the fisheries are under international negotiation or otherwise affected by external factors (the number of approved ships was 166 in 2002).

7. Establishment of the Basic Law on Food Safety and the Food Safety Commission

In February 2003, the Basic Bill on Food Safety was submitted to the 156th ordinary session of the Diet. The government had been discussing what to include in the bill since June 2002 when the decision on reformation of the food safety administration was made at the Meeting of Cabinet Ministers on the Food Safety Administration, which was held in response to the proposal made in a report submitted in April 2002 by the BSE Investigation Committee. The reform was planned to be carried out through such measures as the establishment of the Food Safety Commission (tentative name) and the Basic Law on Food Safety (tentative name).

The submitted bill specifies that food safety must be ensured by taking the necessary measures based on the basic understanding that the protection of public health has top priority and also that the concept of risk analysis must be introduced to food safety administration by establishing the Food Safety Commission in the Cabinet Office, which has the sole authority to assess the risks related to food safety.

Under the Basic Law on Food Safety, the administration for the safety of food including fishery products will undergo fundamental reform.

I. Special Feature: In Pursuit of Safety and Reliability of Fishery Products

1. Importance of ensuring the safety and reliability of fishery products

For Japanese people, fishery products are very important because they account for 20% of the protein (40% of the animal protein) Japanese people take in from foods. Their nutritious benefits have been rediscovered in recent years.

The importance of fishery products in the Japanese diet is greater than that in diets of other countries. Therefore, the safety and reliability of fishery products are essential in maintaining the safety and reliability in Japanese diet.

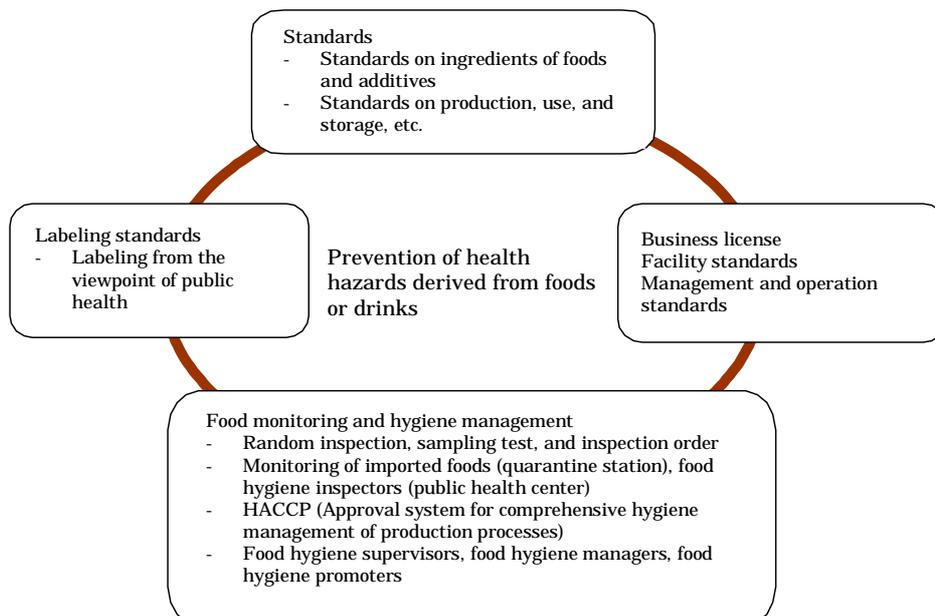
2. Basic framework and reinforced measures to ensure the safety of fishery products

(1) Basic framework to ensure safety

(Food Hygiene Law and other measures to ensure safety)

Measures for food safety have been taken mostly within the basic framework of food safety standards based on the Food Hygiene Law. Under the framework, food producers and food companies, which have primary responsibility for providing safe food to consumers, need to comply with relevant laws and to make efforts to ensure food safety. Efforts to ensure food safety must be made in all food-related industries including the fisheries industry.

Measures to Ensure Food Safety under the Food Hygiene Law



(Outbreaks of food poisoning and recent trends)

The number of food-poisoning cases has been on the decline. In recent years, however, we have seen large-scale food-poisoning cases caused by enterohemorrhagic *Escherichia coli* O157 and other contaminants.

The number of food-poisoning cases caused by fishery products including processed products has decreased as a whole because food-poisoning cases caused by *Vibrio parahaemolyticus*, which have been major cases in Japan occur less frequently these days.

However, in 1998 and 1999, the number of cases caused by *Vibrio parahaemolyticus* started to rise again. In June 2001, the standards for such products as boiled crabs and fresh fishery products to be eaten raw in the form of filleted fish or shelled fishery products were established based on the Food Hygiene Law. The frequency of food-poisoning cases caused by the Small Round Structured Virus (SRSV) has also increased. In order to help identify the source of poisoning, producers of packaged oysters to be eaten raw have been obliged to indicate on each oyster package the fishing area since the revision of the Food Hygiene Law in 1999.

(Effects of long-term continuous intake of chemical substances)

The maximum permissible levels of total mercury and methyl mercury, or PCB contained in fishery products have been set on a temporary basis. No fishery products with levels of contamination higher than the set levels are allowed to be marketed, sold, etc. In some waters, the levels of such contamination are monitored. In addition, voluntary fishery restrictions are imposed.

A tolerable daily intake of dioxins is set at 4 pg-TEQ/kg of weight/day based on the basic principle of WHO expert meetings. Foods are responsible for more than 90% of Japanese people's total intake of dioxins, of which about 80% is considered to be attributable to fishery products.

According to an interim report issued in September 2002 regarding a survey on fishery product contamination, the concentration of dioxins in fish and shellfish greatly differs among different species and their habitat environment. Japanese people should not be concerned because the national intake of dioxins is much lower than the above-mentioned tolerable level, as long as diets include a variety of fish caught in different fishing areas. The intake of dioxins from foods per day in 1998 decreased to the level about one third the level in 1977.

Results of a survey on daily intake of dioxins from foods

(Unit: pg-TEQ/kg of weight/day)

	1977year	1982	1988	1992	1995	1998	1999FY	2000	2001
Intake per kg of weight per day	8.18	5.32	5.58	2.07	2.30	2.72	2.25	1.45	1.63

Source: Ministry of Health, Labour and Welfare

Note: 1) The above calculation was made based on the assumption that the average weight of a Japanese person was 50kg.

2) The figures for the period from 1977 through 1998 were calculated based on an analysis of the concentration of dioxins contained in the past samples in the Kansai region of Japan.

3) The figures for the period from 1999 through 2001 were calculated based on the results of research on the daily intake of dioxins from foods.

In July 1999, the Law Concerning Special Measures against Dioxins was established. The law has contributed to reducing the emissions of dioxins by raising the standards for incinerators and other facilities.

(Ensuring safety of imported products)

Businesses that import food for sale or processing must follow the import reporting procedure under the Food Hygiene Law. Upon reporting, the relevant authorities conduct an examination on the food in consideration of such data as the exporting country, food item, and producer of the food and, if necessary, carry out an inspection on the food as well. Fishery products accounted for about 20% of the number of import reports in 2001 (about 10% in terms of weight).

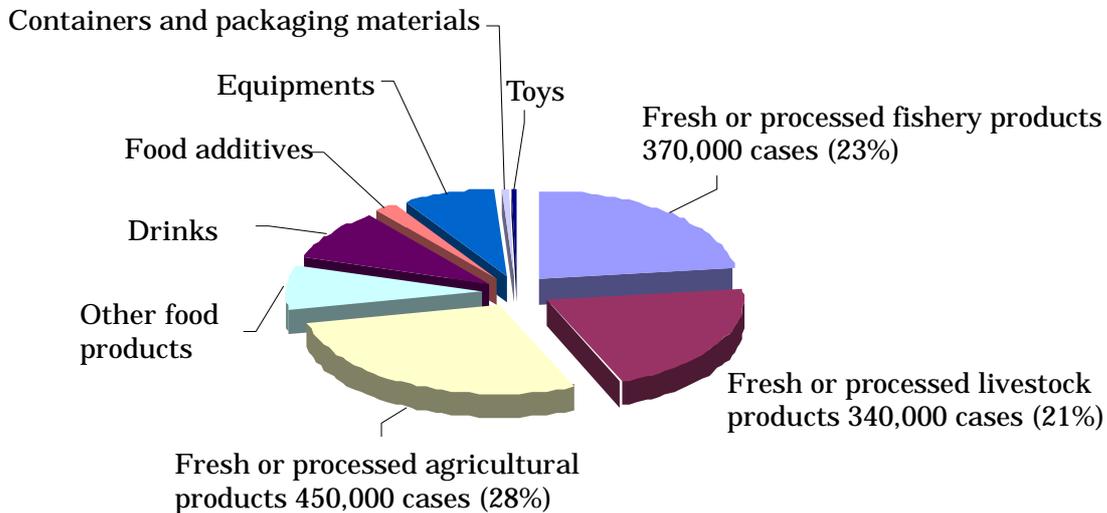
Japanese people consume domestic and imported fishery products on almost an equal basis. It is therefore important to ensure the safety of imported fishery products as well as domestic products.

The frequent discovery of higher than permitted levels of residual agricultural chemicals in products such as imported frozen spinach prompted a revision of the Food Hygiene Law in July 2002. The revision has authorized the Minister of Health, Labour and Welfare to ban, if necessary, without any inspection, the import of a certain food items produced in a certain country or area in order to prevent risk to public health caused by food contamination or poisoning.

The number of reporting of imported foods has approximately doubled in the past 10 years. The inspection system needs to be enhanced in order to ensure the safety of imported foods.

Breakdown of the imported items filed in 2001

Number of cases reported: 1.61 million



Source: Ministry of Health, Labour and Welfare

(2) Measures to ensure safety

(Trends in the production of fishery products)

For the provision of safe and reliable food, the production stage is the starting point from which each step will follow. Aquaculture accounts for about 20% of the total fishery production of Japan and has been on the rise in recent years. As far as certain types of fishery products are concerned, aquaculture accounts for 70 to 80%. The safety of cultured fishery products depends largely on how aquaculture operators manage the production.

The remaining 80% or so is caught in the wild. For provision of safe fishery products, the aquatic environment such as the sea and rivers must be conserved.

(Measures to ensure the safety of cultured fish)

Many fishery operators use the same water area to conduct aquaculture operations and cultivate a lot of fish in each fish cage. Once a disease breaks out, the damage tends to easily spread. The environment of a part of area affects the aquaculture carried out in its entire water area, as fish diseases which occurs in a part of aquaculture area, tends to spread to all the area. Therefore, it is important for aquaculture operators to take measures against fish diseases and conserve environments of aquaculture area.

(Medical products for fish)

In order to prevent and cure fish diseases, medical products for fish are used for aquaculture and other purposes.

Restrictions have been established on the use of the medical products for major fish species (11 fish species including yellowtail, sea bream, and eel), which require special care with regard to residual chemicals. Violation of the restrictions will result in prosecution.

As the kinds of cultured fish have been diversifying, comprehensive restrictions that apply to all kinds of fish and medical will be established in the future.

It is important to promote the transition to measures that put more emphasis on disease prevention through creating better fishing environments and appropriate breeding. In recent years, vaccines to prevent fish diseases have been developed. Furthermore, under the Law for Ensuring Sustainable Aquaculture Production established in 1999, plans to improve fishing grounds have been established and implemented in many parts of Japan.

(Feed for cultured aquatic animals)

Under the Law for Ensuring Safety and Improving the Quality of Feed (Feed Safety Law), standards were established for the production and usage of the feed of 7 major species of cultured fish and additives in feed. The use of antibiotics has been prohibited. Since October 2001, meat-and-bone powder has been prohibited from being added to feed. As the kinds of cultured fish have been diversifying, comprehensive specifications and restrictions that apply to all fish species will be established in the future.

(Antifoulant for fishnets)

Antifoulant is used to prevent aquatic organisms from clinging to fishnets and decreasing the flow of seawater in fish cages. The production and import of various organic tin compounds, which used to be used as active ingredients of antifoulant, became subject to the restrictions under the Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances (Chemical Substances Examination Law) during 1989 ~ 1990. Organic tin compounds are therefore no longer contained in antifoulant for fishnets.

(Shellfish poison)

Permissible maximum levels of paralytic shellfish poison and diarrhetic shellfish poison have been set respectively. Shellfish with a level of poison higher than the set standards must not be caught, marketed, sold, or otherwise provided to the public. In each fishing area of shellfish, the competent prefectural government, fishery operators, and other parties concerned monitor the amount of phytoplankton species that could cause poisoning and the accumulation of poison in the shellfish. If the amount of poison is likely to exceed the above-mentioned maximum levels, voluntary restrictions on the catch and shipment will be imposed on the relevant shellfish.

(3) New food safety administration based on risk analysis

(Establishment of the Food Safety Commission)

In June 2002, ministers in charge of food safety administration decided at a cabinet meeting to review and improve the food safety administration by taking action such as the creation of the Food Safety Commission (tentative name) and the establishment of the Food Safety Basic Law (tentative name).

In 2003, a bill concerning the establishment of the Basic Law on Food Safety was submitted to the ordinary session of the Diet. The law specifies the basic understanding that the protection of public health must always come first. Moreover, the concept of risk analysis has been introduced to the food safety administration. In addition, the law requires the establishment of the Food Safety Commission, which has the sole authority to assess risks.

(Separation of the risk management department from the industrial promotion department to reinforce risk management)

At each administrative agency in charge of risk management, the risk management department has been separated from the industrial promotion department to reinforce risk management. Each administrative agency has also reviewed its risk management system.

The Ministry of Agriculture, Forestry and Fisheries of Japan has also reorganized itself by separating the risk management department from the industrial promotion departments and making the risk management department into an independent organization. Regarding the field related to fisheries, the tasks concerning medical products for fishery as well as feed for cultured aquatic animals will be assigned to a new department in charge of risk management.

3. Active information provision to dispel anxiety of consumers

(1) Changes in consumption of fishery products and information on products

Changes in lifestyle have led to a decrease in home cooking, change in the types of shops where fishery products are bought (from fish stores to supermarkets), and an increase in imported food. As a result, consumers, who find it increasingly difficult to obtain information on raw materials and cooking methods, have no choice but to depend more on labels.

(2) Measures to ensure the reliability of labels

(Effective food labeling and consumer participation)

The Law Concerning Standardization and Proper Labeling of Agricultural and Forestry Products (JAS Law) was revised in June 2002 to impose heavier punishment on mislabeling and thus to ensure effective food labeling.

In an effort to reinforce the monitoring system, the “Food Labeling Hotline” was established. As a part of such an effort, the “Food Labeling Watcher” system was created in cooperation with consumers in an attempt to promote proper food labeling.

(Improvement and enhancement of fishery product labeling)

Further improvements have been made in the naming of fish and shellfish and the way of describing them on labels.

Since July 2000, the label of each fresh and frozen fishery product has been required to show the name and the place of origin, and also to indicate whether or not the product is “defrosted”, and “cultured” as the case may be. A review is currently being conducted on the method of indicating the place of origin on a label.

Regarding processed fishery products, the labels of 6 products, including salted mackerel, have been required to indicate the place of origin of raw-materials since February 2002. This requirement will be imposed on other products as well.

Moreover, a study is underway for the creation of guidelines for the names of fish and shellfish to be indicated on labels. Such guidelines are necessary because names of fishery products are more complex than those of other products. For example, some fish and shellfish species have a different name for each growth stage and are referred to by different names in a different region.

Outline of the Guidelines for the Names of Fish and Shellfish (Abstract) (Interim Summary)

(General rules)

- In principle, the species name (standard Japanese name) of a product should be stated on the label.
 - In the case of fish or shellfish, etc., that has a name other than the species name that is more recognizable to the public, the familiar name may be stated on the label instead of the species name. In order to prevent consumers from being confused by unfamiliar species names. Familiar names indicated on labels may be derived from genus names, family names, or other names in wide use as long as the names clearly show what the contents of the products are.
-

(Names according to a growth stage and season)

- In the case of fish or shellfish that has a different name for a certain growth stage or season, if the name is recognizable to the general public as a name of the fishery product, it may be used for labeling.
-

(Local names)

- In the case of fish or shellfish that is called by a special name in a certain region, such a name may be used in the region where the local name is in general use. If the fishery product is sold in any place other than that region as well, the standard Japanese name must be printed on the label alongside the local name so that consumers can recognize the kind of fish or shellfish by checking the label.
-

(Exotic species)

- The names of exotic species must not mislead consumers into believing that they are better than what they really are in quality. The labels of exotic fish and shellfish, etc., should carry the names in wide use that most accurately describe the fishery products in accordance with the general rules.
-

Source: "Guidelines for the Names of Fish and Shellfish (Interim summary)" Fisheries Agency, March 2003

II. Developments in the Japanese Fisheries Industry since 2001

1. Supply and demand for fishery products in Japan

(1) Domestic fishery production

(Fishery and aquaculture production)

Japan saw its fishery production decrease 4% in volume from the previous year to 6.13 million tons and also shrink 5% in value to 1,780.3 billion yen.

Fishery and aquaculture production in volume

(Unit: 10,000 tons)

	2000 (A)	2001 (B)	Increase/decrease (%) B/A
Total	638	613	4
Marine fisheries	502	475	5
Deep sea fisheries	86	75	12
Offshore fisheries	259	246	5
Coastal fisheries	158	155	2
Marine aquaculture	123	126	2
Inland water fisheries and aquaculture	12	12	5

Source: "Annual Statistics of Fishery and Aquaculture Production," Ministry of Agriculture, Forestry and Fisheries

Fishery catch and aquaculture production in value

(Unit: 100 million yen)

	2000 (A)	2001 (B)	Increase/decrease (%) B/A
Total	18,753	17,803	5
Marine fisheries	12,340	11,651	6
Deep sea fisheries	2,120	2,009	5
Offshore fisheries	4,456	4,206	6
Coastal fisheries	5,765	5,435	6
Marine aquaculture	5,272	5,029	5
Inland water fisheries and aquaculture	1,133	1,116	2

Source: "Annual Statistics of Fishery and Aquaculture Production," Ministry of Agriculture, Forestry and Fisheries

(Fishery resources in waters surrounding Japan)

According to the results of a resource assessment conducted in 2002 on major fishery resources in the waters surrounding Japan, the levels of fishery resources are low for about half of the species or groups of fish on which the assessment was conducted. Resource restoration plans for such fishery resources as Spanish mackerel in the Seto Inland Sea have been implemented since 2002. Further efforts like this need to be made in the future.

(Aquatic environment)

The aquatic environment of such areas as coastal waters, which are important for fishing and aquaculture, are threatened by factors such as the influx of wastewater from factories and households, etc., a decrease in seaweed beds and tidelands, land reclamation, and sea gravel extraction.

About 40% of the disappearance of seaweed beds has been caused by unidentified factors. According to past investigations, there are direct and indirect causes attributable to human activities. Direct causes include land reclamation, while indirect causes include stagnant water flow caused by structures in the waters and a change in the distribution of underwater sand. On the other hand, natural causes include a decrease in the clarity of water and an increase in water temperature. In addition, feeding damage has been pointed out as a cause. A technical study is currently underway in order to determine the locations of seaweed beds in wide areas through analysis of satellite images.

Regarding water quality, Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD), which are major indexes of organic contamination, have improved in rivers and lakes in the past 10 years, while they have remained almost the same in the sea during the same period.

The frequency of red tide has decreased, although the average amount of damage caused by each red tide has increased. Other problems causing damage to fishery resources include the occurrences of blue tide and oil spilled from stranded ships. In addition, concern is growing about the possible effects of endocrine-disrupting chemicals on fishery resources.

The inland water fishery and ecosystem have been damaged by exotic species such as black bass, which has widened its habitat after being introduced into Japan. In order to solve this problem, it is essential that Japanese people develop a deeper understanding of fishing ground environments and ecosystem conservation of fishery products.

(2) International trade

(Import of fishery products)

The import of fishery products increased 8% from the previous year to 3.824 million tons in 2001. Half of the increase was attributable to an increase in imported fish meal. The value of imported fishery product stood at 1,723.7 billion yen, remaining about the same as a year earlier.

Japan is the world's largest importer of fishery products in terms of both value and volume, and its imports accounted for 26% and 13% of the world fishery product imports in 2000 respectively.

The largest exporter of fishery products to Japan has been China for the past 10 years in terms of both volume and value. In 2001, the largest imported item in terms of value was processed eel, followed by shrimp, and processed crabs, featuring an increase in processed fishery products. China has increased its presence as an exporter of fishery products in recent years and became the world's second largest exporter in terms of value in 2000.

(Export of fishery products)

In 2001, Japan saw its fishery product exports increase by 91,000 tons (up 41%) to 313,000 tons in terms of volume and decrease by 3.2 billion yen (down 2%) to 135.2 billion yen in terms of value.

(3) Processing and marketing of fishery products

A. Processed fishery products

(Production volume of processed fishery products)

While the production volume of salted or dried fishery products, especially salted mackerel and salted-dried mackerel, increased in 2001, the production volume of processed fishery products has been on the decline as a whole due in part to shrinking sales and unstable supply of raw materials.

(Business conditions of fishery processing operators)

The number of fishery processing operators who cited increasing personnel costs or other labor-related problems as a managerial problem has decreased compared to years

ago. On the other hand, an increasing number of operators cited poor sales or other sales-related problems as a managerial problem. As many as half of the operators cited a decrease in fish and shellfish for raw materials as a problem. Operators also face such challenges as the enhancement of general hygiene and quality control as well as the promotion and introduction of the HACCP hygiene management system.

(Markets in production areas)

In 2001, the catch landed at major fishing ports in the production areas decreased by 4% compared to the previous year. The average price was about the same as the previous year, standing at 204 yen/kg.

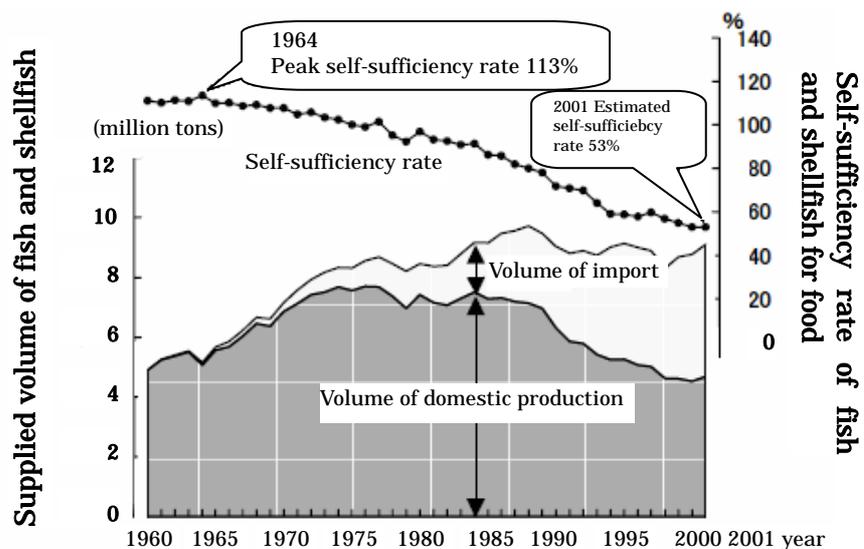
Prefectural and city governments are taking measures to strengthen the functions of the markets in the production areas and to promote mergers between markets for management rationalization.

(4) Consumption of fishery products and self-sufficiency rate

In 2001, the fishery products supplied for domestic consumption increased 4% to 11.26 million tons compared to the previous year, of which 8.8 million tons, up 3% from the year before, were for human consumption. The annual volume of consumption on a net food basis increased 4% from the previous year to 38.7kg per capita.

The self-sufficiency rate of fishery products for human consumption in 2001 was 53%, remaining about the same as the previous year. As far as seaweed was concerned, the rate decreased by one point to 62%.

Transition in Japan's Self-Sufficiency Rate, etc., of Fish and Shellfish for food



Source: "Food Balance Sheets," Ministry of Agriculture, Forestry and Fisheries

2. International developments surrounding Japanese fisheries

(1) Bilateral fishery relations

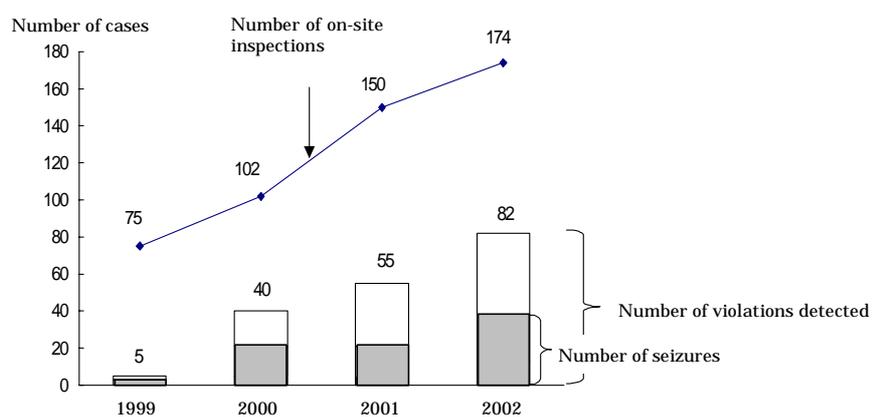
(Relations with South Korea and China)

Fishermen of Japan and South Korea fish in each other's waters reciprocally. In the fishing season in 2002, both countries agreed that Korean vessels conducting saury fishery should not operate in these waters around the Four Northern Islands and also agreed that such vessels may operate off the Sanriku Coast up to the maximum allowable catch limit, which was established by Japanese Government.

Similarly, Fishermen of Japan and China fish in each other's waters reciprocally. As the violation of fishery rules set by Japanese Government by Chinese fishing vessels has increased in frequency and viciousness, Japan needs to increase and enhance its efforts of enforcement in the surrounding waters.

At the Japan-China-South Korea Symposium on Marine Fishery Resources held in February 2002, the three countries exchanged opinions on studies about fishery resources in the Japan Sea, Yellow Sea, and East China Sea.

The number of on-site inspections, violation discoveries, and seizures of fishing vessels of neighboring countries and regions by the Fisheries Agency



Nationalities of seized ships

Korean ships	3	16	17	25
Chinese ships	-	5	3	12
Russian ship (s)	-	-	-	1
Taiwanese ship (s)	-	-	1	-
Total	3	21	21	38

Source: Fisheries Agency

Note: The term "seizure" means to seize a ship and arrest the captain and other crewmembers.

(Relations with Russia)

Based on the Japan-USSR Adjacent and Offshore Fishery Agreement, Fishermen of Japan and Russia fish in each other's 200-mile zone reciprocally. Also, based on the Japan-USSR Fishery Cooperation Agreement, Japanese salmon fishery conducts fishing in the northern sea. Moreover, based on the Framework Agreement Concerning the Operations of Japanese Fishing Vessel in the Waters around the Four Northern Islands, Japanese fishing vessels operate in the waters.

(2) Multilateral fishery relations

A. Developments with regard to tuna and skipjacks

(Measures to eliminate the operation of Illegal, Unreported and Unregulated (IUU) fishing vessels including vessels flying a flag of convenience)

International Commission for the Conservation of Atlantic Tuna (ICCAT), Commission for the Conservation of Southern Bluefin Tuna (CCSBT), and other regional fishery management institutions are making utmost efforts to eliminate IUU fishing vessels.

ICCAT and the Indian Ocean Tuna Commission (IOTC) have listed the fishing vessels that have received official approval from the respective member countries. Those organizations are trying to establish rules to exclude catches of unlisted fishing vessels from international trade.

B. International Whaling Commission (IWC)

In May 2002, an annual meeting of the International Whaling Commission (IWC) was held in Shimonoseki, Yamaguchi prefecture, Japan. At the meeting, Japan's request for an interim quota for the coastal small-scale whaling areas was rejected. A proposal to give U.S. and Russian aborigines a quota for the whaling of right whales from 2003 was also rejected.

In the IWC special meeting in October, the proposal to give the U.S. and Russia a quota for the whaling of right whales was eventually accepted when the U.S. agreed to make it mandatory to review quotas based on the results of resource evaluations. IWC officially accepted Iceland as a member country with the reservation to the moratorium on commercial whaling. A proposal to solve the difficulties in the coastal small-scale whaling areas in Japan was rejected.

C. Meeting held by signatory countries of the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES)

At the meeting held by CITES signatory countries in November 2002, Japan's proposal to takedown Minke whales and Bryde's whales off the list was rejected. Such species as whale sharks, basking shark, and sea dragons were listed in Appendix II. Japan made a reservation on the listing in accordance with a provision of the Convention.

D. Food and Agriculture Organization (FAO)

At the meeting of the Sub-Committee on Aquaculture of the Committee on Fisheries of FAO in April 2002, the participants acknowledged the necessity of ensuring the sustainability of aquaculture including environmental conservation and the health of consumers of cultured products.

Regarding fattening of tuna, it was stated in the report of the meeting that statistical information needs to be improved.

E. World Summit on Sustainable Development (WSSD)

The world Summit on Sustainable Development (WSSD) was held in September 2002. Regarding the fishery related part, the participants acknowledged the importance of fishery products from the perspective of world food security. Participants also identified the areas important for international efforts, which included the conservation and sustainable use of living marine resources including not only fish but also whales and other marine creatures.

3. Fishery business management

(1) Trends concerning fishery operators

In 2001, fishery operators engaging in marine fishery decreased 3% compared to the previous year to 142,000, consisting of 134,000 coastal fishery operators, 7,000 small and medium-size fishery operators, and 124 large fishery operators.

(2) State of fishery business management

A. Coastal fishery households

(Income and expenditure of coastal fishery households)

In 2001, coastal fishery households saw their fishery incomes increase 10% from the year before. While fishery expenses also increased 5%, the fishery profits rose 16% compared to the previous year to 2.26 million yen. The details of their operations differ greatly from one another mostly because each sea area has a different state of marine resources (For example, the fishery profits in Hokkaido area was 3.42 million yen, while that in the East China Sea area was 1.63 million yen.)

(Income and expenditure of marine aquaculture households)

In 2001, marine aquaculture households saw their profits drop 16% from the previous year on a weighted average basis to 6.87 million yen. While aquaculture households cultivating sea bream, scallops, laver, and wakame seaweed saw their profits increase aquaculture households cultivating yellowtails saw their incomes plummet because of a decrease in the price of yellowtail. The profits of aquaculture households cultivating pearls (pearl oysters) and oysters also declined.

B. Small and midsize fishery operators

(Income and profit of small and medium-size fishery operation)

In 2001, the average income of a small and midsize fishery operator decreased 8% from the year before. However, a profit of 210,000 was posted thanks to an 11% decline in fishery operating expenses. The finances of small and midsize fishery operators greatly differ from one another depending on what type of fishery they engage in.

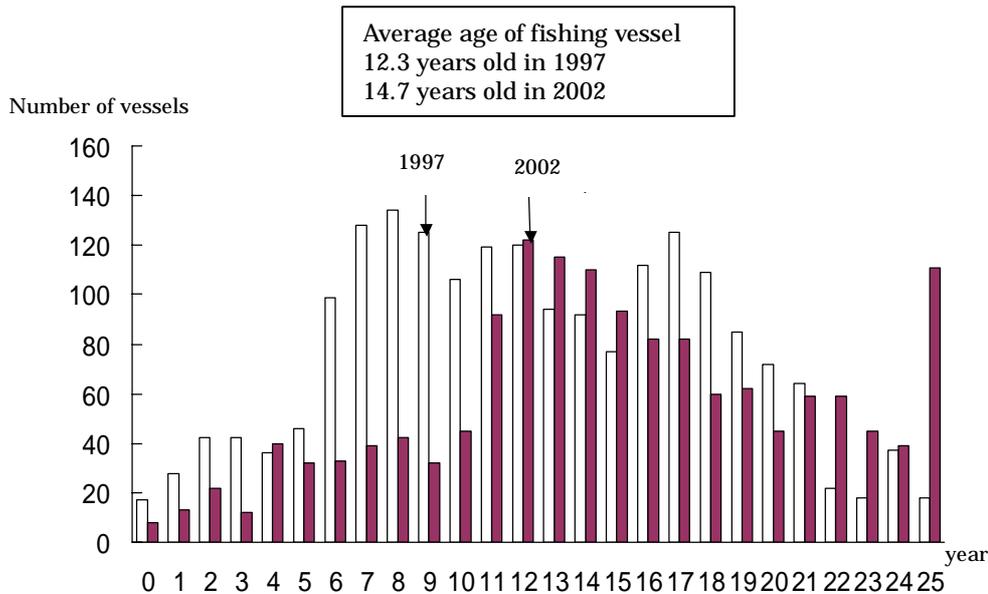
(Financial conditions of small and medium-size fishery operation)

In 2001, the amount of fixed assets, about 50% of which consisted of fishing vessels and fishing gears, etc., fell 8% from the previous year, while the current liquid assets such as deposits and savings dropped 9%. As a result, the total assets decreased 8% to 149 million yen. As for debts, loan accounted for about 70% of the total liabilities, declined 14% from the previous year, while the liabilities as a whole shrank 8% to 134 million yen.

Compared with 10 years ago, the capital adequacy ratio and the ratio of debts to sales

have improved because capital investment for such purpose as fishing vessel building has decreased since then. The number of fishing vessels built each year has plummeted in recent years, contributing to the aging of fishing vessels.

Ages of fishing vessels for major types of fishery



Source: Fisheries Agency

Note: 1) "Major types of fishery" means offshore trawl fishery, large/medium-scale purse seine fishery (net-fishing vessels), both deep sea and offshore tuna fishery (only the vessels that are at least 20 gross tons in total), and medium-scale squid jigging fishery.

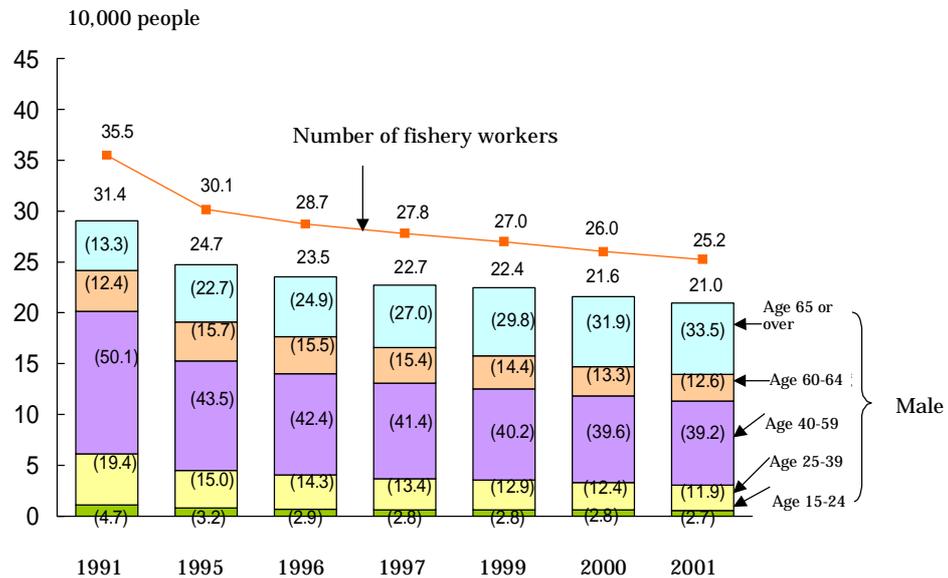
2) To calculate the average age of fishing vessels, any ship aged 25 or older is deemed to be 25 years old because the accurate ages of older vessels are not known in some cases.

(3) State of fishery workers

A. Fishery workers

In 2001, the number of fishery workers decreased 3% from the previous year to 252,000. The proportion of male fishery workers aged 65 or older to the total male fishery workers increased by 2 points to 34 %, showing that the aging of fishery workers is occurring.

Number of Fishery Workers in Recent Years



Source: "Annual Statistics on Movement of Fishery Enterprises," Ministry of Agriculture, Forestry and Fisheries

Note: The figure in each bracket indicates the proportion of population of that age group to the total number of male fishery workers.

(B) Workers on fishing vessels

The number of workers employed for offshore and deep sea fisheries shrank 5% from the previous year to 33,000.

Due to personnel shortage of Japanese workers who are willing to work on fishing vessels, foreign workers have been allowed to work on Japanese fishing vessels under the maru-ship system

(4) Fisheries cooperative associations

The operations of fisheries cooperative associations have been either on a plateau or on the decline, reflecting the worsening fishery environment such as decreasing fishery production and sluggish prices of local fish. As a result, the finances of fisheries cooperative associations have worsened.

They have been making efforts to reinforce associations through mergers and transfer of a cooperative banking functions to other parties.

4. Current state of fishing villages and efforts for revitalization

(1) Measures to improve the living conditions of fishing villages and to revitalize them

A. Measures to improve the living conditions of fishing villages

Fishing villages are usually located in geographically disadvantageous areas such as far-off places, isolated islands, and peninsulas. Therefore, the development of living conditions of fishing villages have been slow in comparison with that of cities. Since 2000, the national government, local governments, and related organizations have, in collaboration, commenced the Fishing Village Life Improvement Movement (Fishing Village Refresh Movement).

B. Measures to revitalize fishing villages

In recent years, fishing villages have been taking various measures to revitalize their communities, taking advantage of local resources including fresh fish and shellfish, rich natural environments, picturesque landscapes, etc.

(2) Coexistence and exchanges between cities and fishing villages

Fishing villages are expected to play the role of providing city dwellers with sound recreational opportunities, children with experiential learning opportunities about fishery, and, in general, with opportunities to promote health and spiritual healing.

The national government established the Project Team for Coexistence and Exchanges between Cities and Agricultural, Mountain, and Fishing Villages (PT) in October 2002 in an attempt to create a lifestyle where people living in cities and people in agricultural, mountain, and fishing villages visit each other's place of residence. Through such mutual exchanges, a national movement has been promoted to revitalize agricultural, mountain, and fishing villages suffering from the aging and shortage of workers and also to help city dwellers enrich their lives.

5. Multiple functions of fisheries and fishing villages

(Importance of fisheries and fishing villages to Japanese people's lives)

Fisheries and fishing villages play not only the role of providing Japanese people with fishery products but also other multiple roles to enrich and enhance Japanese people's lives. Such multiple roles would not be played without fishery workers and other local

residents living in the fishing villages and fishing activities being conducted continuously.

According to a survey conducted in 2001 on Japanese people's awareness of fisheries and fishing villages, many people shown a deep interest in and understanding of the fisheries and villages.

(Assessment of multiple functions)

The multiple functions in the section of fisheries have not been discussed or studied well enough to finalize their evaluation, whereas the functions of agriculture and forestry have well been researched and various measures have been taken in order to facilitate them.

A decision has been made to evaluate the functions of fisheries and fishing villages in the following five fields such as the function of offering income and employment opportunities.

Evaluation Fields of Multiple Functions of Fisheries and Fishing Villages and Detailed Description thereof

Functions	Details
Function of offering income and employment opportunities	Due to the geographical isolation of most fishing villages, which are situated on remote islands and peninsular areas, no alternative industries other than fisheries have developed in such villages. Fisheries play an important role of providing the local communities with earnings and employment opportunities.
Function of conserving the environment	Wastewater from households and other entities eventually flow into the sea by various routes. The nutrients flowing into the sea are transformed into useful marine resources through the ecosystem, which are eventually landed through fishery activities. In this way, fisheries perform the function of complementing circulation of organic matters from the sea to the land.
Function of protecting lives and properties	About 230,000 fishing vessels are in operation off the Japanese coast. Along the coast, about 3,000 fishing ports and 6,200 fishing villages are situated. This means that Japan has a huge network to monitor surrounding waters from its coast. In this way, fisheries perform the function of spotting any marine accident or disaster, rescuing victims, monitoring boarders, evacuating people in an emergency, and preventing accidents and disasters.
Function of providing opportunities for recreation, exchanges, and learning	Coastal areas have been providing Japanese people with places to relax and opportunities to engage in recreational activities such swimming, shell gathering and fishing, and also with opportunities for exchanges between city dwellers and fishing villagers through such activities as fishery experience courses and environmental learning programs.
Functions of passing down culture	Fisheries and fishing villages have formed indigenous lifestyles including special foods and festivals in the course of fishing operations. They have also created distinctive fishing cultures and landscapes. These cultures and landscapes have been maintained and handed down by fishing villages and fishery workers living there.

Source: Fisheries Agency

Conclusion

The repeated outbreak of Bovine Spongiform Encephalopathy (BSE) and other problems threatening food safety during 2001 through 2002 caused great anxiety among Japanese people about the safety of their foods and public mistrust toward the government.

These food-related problems prompted the Japanese government to conduct a fundamental review of its food-safety administration and to establish the Basic Law on Food Safety. Under the law, food-safety administration has been drastically reformed through such efforts as the introduction of the risk analysis method and the establishment of the Food Safety Commission.

The national government, local governments, and companies must put primary importance on the protection of public health and fully fulfill their respective obligations under the Basic Law on Food Safety in order to ensure food safety, a lack of which would threaten people's lives and the foundation of the society. These parties concerned are expected to use scientific knowledge to develop and implement measures at each stage of the food supply process in order to prevent adverse effect to the health of people.

From ancient times, seafood has been an important source of nutrients for Japanese people. To this day, fishery products have remained important, accounting for 20% of all the protein Japanese take in (40% of all the animal protein). Therefore, the safety and reliability of fishery products is essential for food safety and reliability in Japan. This is why we chose the topic of "Safety and Reliability of Fishery Products" for the feature article of Chapter I. In this report, special emphasis is placed on the measures taken at fishery production sites and other important sites.

It is indispensable for the supply of safe fishery products to maintain a good aquatic environment. In the case of aquaculture, further efforts are needed to ensure safety because the safety of cultured fishery products depends largely on how aquaculture operators manage production. The operators are expected to improve fishing environments, use proper rearing methods, and ensure the safety of medicines for fish and aquaculture feed. In addition, active information provision to consumers is necessary.

To ensure the safety of fishery products, various measures have to be developed and implemented steadily. For effective implementation, communication among the government, consumers and other parties concerned should be promoted and have their opinions reflected in future measures. It would be very satisfying to see this report promote such communication.

* For any questions or inquiries about this report, please call the following number:

Trend Analysis Section, Policy Planning Division, Fisheries Policy Planning
Department, Fisheries Agency

Phone No.: 03-3502-7889 (Direct)

Fax No.: 03-3501-5097