Fisheries of Japan – 2007 / 2008

Fisheries Policy for FY2008

(White Paper on Fisheries)

Essential Part (Draft)

April 2008

Fisheries Agency
This document reports the state of fisheries and the policy taken during FY2007 based on the provision of Article 10 (1) of the Basic Law on the Fisheries Policy (Law No. 89 of 2001) and the policy to be taken in FY2008 based on the provision of Article 10 (2) of the same law.
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Main Points of the White Paper

◆ Transmitting Japan's unique fish-eating culture and rich waters supporting such culture to future generations

- Through the accumulation of wisdom and knowledge obtained in eating habits centering on fish, Japan’s unique “fish-eating culture” has developed.
- With the growing trend showing a shift away from fish in recent years, the opportunities to enjoy a wide variety of fishery products caught in the waters surrounding Japan have decreased. The shift away from domestic fishery products may thus lead to a decline in the Japanese “fish-eating culture” and the fisheries industry.
- Although Japan’s surrounding waters were originally rich fishing grounds, various problems have occurred, including a decrease in resources, underwater plant beds and tidelands as well as a shortage of fishery workers. The impact of global environmental changes, such as global warming, is also a matter of concern.
- It is important to enhance the production capacity of the sea and make sustainable use of its blessings without waste. The linkage of woods, rivers and the sea, as well as “collaboration” among fishermen, distributors, consumers and the government would enhance synergy effects.

◆ Promoting the restoration and management of low-level fishery resources, and developing processing, distribution and consumption policies in order to secure a stable supply of fishery products

- Nearly half the resources in Japan’s surrounding waters are at low levels. It is necessary to steadily implement resource restoration plans.
- It is necessary to improve the living environment for aquatic animals and plants in sea and inland waters.
- Japan is a top importer of fishery products, but the import volume is on the decline, whereas Japan's export value of fishery products is on the increase. Efforts are being made to increase exports.
- It is necessary to intensify the functions of both the fish landing area and consumer area markets, and to reduce the fishery product supply cost.
- It is important to secure the safety of fishery products, improve their labeling, and promote the spread of fish-eating culture and fish-eating education.

◆ Promoting international resource management in waters, including the high seas, and promoting international cooperation

- It is important to promote fishing operations based on bilateral agreements and resource management through regional fisheries management organizations. It is also important to intensify control over illegal operations conducted by foreign fishing vessels.

◆ Securing fishery operators’ business management stability, and developing a vigorous working environment for fisheries

- There has been a progressive decline in the number of fishery workers and they are increasingly aging. It is necessary to promote the recruitment of new workers as well as the new entry of workers from other industries. It is also important to foster future fishery workers and develop a vigorous working environment for fisheries.
- New business management stabilization measures are introduced to stabilize fishery operators’ business management.

◆ Improving the living environment and the anti-disaster capacity of fishing villages, and realizing vigorous fishing villages by exploiting fishery resources and displaying multiple functions of the fisheries industry

- It is important to improve the living environment and intensify the anti-disaster capacity of fishing villages.
- It is important to promote the development of vigorous fishing villages by exploiting local resources and displaying multiple functions of the fisheries industry and fishing villages.
Topics -- Fisheries in FY2007 --

1. Impact of the Steep Rise in Crude Oil Prices

◇ Crude oil prices soared worldwide. As of April 23, 2008, Dubai crude oil price hit an all-time high of $101.94 a barrel. The price level is over three times higher than that in 2004 when the price was hovering around $30 a barrel.
◇ The rise in crude oil prices badly affected the fisheries section, too. The percentage of oil cost in fishing expenditure has increased.
◇ By taking advantage of relevant funds established in FY2007, the government promoted structural reforms of fishery business management and assisted fishermen’s energy-saving efforts as a national policy. The government supported expenses related to the efforts to promote the conversion to energy-saving fisheries, such as the spreading of fishing vessels using LED fishing lamps, the efforts to improve production capacity, such as the development of underwater plant beds during the fishing suspension period by suspending fishing operations by turns, etc.

Dubai Crude Oil Price (Monthly Average)

Percentage of Oil Cost in Fishing Expenditure by Type of Fishery

A squid-angling vessel using blue LED fishing lights

Case: Efforts to improve efficiency in light oil supply systems (Hokkaido)>

Light oil supply systems in Hokkaido were reviewed, and new tanks were built for fisheries cooperatives in 9 districts there. A system supplying oil from facilities annexed to the tanks was established. Cost reduction has been achieved as a result of improved efficiency in fuel oil distribution.
2. Toward the sustainable use of whales
   (59th Annual Meeting of the International Whaling Commission)

◇ At the 59th Annual Meeting of the International Whaling Commission (IWC) in May 2007, Japan called for normalization of the IWC, but the situations did not progress because anti-whaling countries held out for the protection of whales.
◇ In response to such dangerous and undue sabotage activities as an anti-whaling group colliding its boat with a Japanese whaling research vessel in February 2007, Japan, together with New Zealand, proposed a draft resolution, including, among others, a recommendation to urge member states to take responsible measures to counter dangerous sabotage activities by anti-whaling groups. The resolution was adopted.
◇ In view of the results of the Annual Meeting, Japan will consider the review of our response to the IWC unless the normalization of the IWC is expected, in addition to our efforts to continue (a) researches into the status of whale resources, (b) explanation on our position to related countries to expand international support for sustainable use of whales, and (c) request for cooperation of related countries to recover the functions of the IWC, all of which our country has made to remove the moratorium on commercial whaling.

(Interim meeting on the future of the International Whaling Commission)

◇ At the interim meeting in March 2008, a proposal was submitted for improvement measures, such as holding more dialogs and negotiations than ever, instead of hastily putting matters to a vote, in order to reach an agreement in making decisions at the IWC. Also, a statement was adopted by the IWC to strongly condemn the anti-whaling group Sea Shepherd’s sabotage actions against whaling research operations.

＜On the Sabotage Activities against the 21st Japanese Whale Research Program under Special Permit in the Antarctic (JARPA)＞

On January 15, 2008, the Yushin Maru No.2, undertaking whaling research operations in the Antarctic Ocean, was sabotaged again by the anti-whaling group Sea Shepherd (hereinafter called “SS”), which had conducted sabotage activities such as colliding its boat with the whaling research vessel in the previous year, too. This time, SS conducted such dangerous activities as throwing in bottles supposedly containing butyric acid and floating ropes intended to get entangled in the vessel’s propeller. In addition, two SS activists invaded the research vessel.

Thereafter, too, bottles containing butyric acid, etc. were thrown into the Yushin Maru No.3 on January 18, and into the research mother vessel, the Nisshin Maru on March 3 and 7.

Such sabotage activities against lawful research operations of our country are dangerous and absolutely forbidden actions. At the IWC, too, such actions are strongly condemned, and at the last two consecutive annual meetings, a resolution was unanimously adopted to prevent dangerous sabotage activities, and related countries are requested to cooperate to restrain such actions.

Japan is requesting related countries, including flag states, to take responsible measures to prevent such sabotage activities and is making domestic efforts to ensure a system enabling safe research operations through cooperation among related ministries.
3. The 14th Conference of the Parties to CITES (CoP14)
   --Toward enhancing the management of fishery resources through proper fisheries management and international trade regulations--

   ◇ The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international treaty in which both exporting and importing countries regulate the international trade of, and restrict the picking and catching of, wild plants and animals to protect endangered species of wild fauna and flora.
   ◇ At the 14th Conference of the Parties to CITES (CoP14) in June 2007, a proposal was adopted, for the purpose of restoring European eel resources, to list this fish species on the CITES Appendix II which requires, in international trade, an export permit issued by an exporting country in advance. The listing will be put into effect in March 2009.

4. Toward the more effective use of bluefin tuna resources in Japan’s surrounding waters
   --The study meeting on the use of bluefin tuna resources in Japan’s surrounding waters--

   ◇ The bluefin tuna resources in Japan’s surrounding waters, where catches by the Japanese fishing fleet account for about 70% of the total catches, hold an important position in the Japanese fisheries industry, eating habits and resource evaluation.
   ◇ The study meeting deliberated on the way of grasping the actual state of the bluefin tuna fishery in the waters surrounding Japan and improving accuracy in resource evaluation based on the information thus obtained, and the ways to use the resources in the future. An “interim report” summarizing the issues to be tackled in the future will be issued in December 2007. A wide exchange of opinions and information will be continued.

5. Expectation for the tuna culture industry

   ◇ In the light of the tightened control on catches for the management of tuna resources and the growing tuna demand overseas, Japan needs a secure supply of tuna in the future.
   ◇ In Japan the production of bluefin tuna by culture is increasing. There is a rising expectation for steady supply of cultured tuna with technology innovations such as success in the complete culture of bluefin tuna. Revitalization of regional economy through entry of companies is also expected.
   ◇ Efforts are being made to promote the development of seeding production and culture technology, preservation of fishing ground environment, development of compound feed, etc.

**Complete culture of bluefin tuna, study of which is expected to progress**

- **Yokowa (young bluefin tuna)**
- **Rearing to grow in net cage** (for about 5 years)
- **Parent bluefin tuna**
- **Spawning**
- **Fertilized roe**
- **100-150kg**
- **Complete culture** (for about 5 years)
- **Adult bluefin tuna**
- **Seeding production**
- **Young bluefin tuna**
- **Delivery**
- **Rearing to grow in net cage**
- **About 20kg**
6. Widening the possibilities for new businesses through linkage with different industries
--Support for new businesses revitalizing fisheries and fishing villages--

◇ Amid a decline in the number of fishery workers and their aging, the number of new workers entering fisheries stands at 1,200 -1,500. Considering that business operators in other industries are highly interested in entering fisheries, it is important to recruit young and highly motivated workers and to construct the fishing/fisheries industry from a new perspective.
◇ “Business Matching Fair 2007” was organized as a forum of meetings between operators from other industries wishing to enter the fishing sector with new ideas and fisheries cooperatives/companies. Also, support is given to the commercialization of new businesses.

Other industry operators’ interest in business linkage with fisheries cooperatives/operators

<table>
<thead>
<tr>
<th>Interest Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not interested</td>
<td>24%</td>
</tr>
<tr>
<td>Not much interested</td>
<td>16%</td>
</tr>
<tr>
<td>Interested</td>
<td>29%</td>
</tr>
<tr>
<td>Very much interested</td>
<td>31%</td>
</tr>
</tbody>
</table>

Source: Fisheries Agency

Fishery operators’ interest in commercialization of businesses using fishery resources

<table>
<thead>
<tr>
<th>Interest Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not much interested</td>
<td>24%</td>
</tr>
<tr>
<td>Interested</td>
<td>35%</td>
</tr>
<tr>
<td>Very much interested</td>
<td>22%</td>
</tr>
<tr>
<td>No answer</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Fisheries Agency

<Case: Development of fishery products of higher safety level by making use of sterilization technologies from dairy manufacturers>
Fishery operators have introduced sterilization technologies from dairy manufacturers in processing fishery products, making it possible to realize higher product safety, product differentiation, higher value added products, extension of best-before dates, improvement in product scrapping rate, etc.
Steady delivery of fish catches and steady income flow are secured for fishery operators. New employment is created.

7. Enactment of the Basic Act on Ocean Policy

◇ The Basic Act on Ocean Policy was enacted in April 2007 and made effective July 20, 2007. It is aimed at promoting the policies and measures on ocean matters comprehensively and systematically, to ensure sound development of the Japanese economy and society as well as continuous stability and improvement in the life of the people, and to contribute to the coexistence of ocean and mankind.
◇ The Act has declared six basic concepts: harmony between ocean development/exploitation and ocean environment preservation, securing ocean safety, improvement of scientific knowledge of the ocean, sound development of ocean industries, overall management of the ocean, and international cooperation on the oceans.
◇ In March 2008, the Basic Plan on Ocean Policy was finalized to form a mid-term guideline for taking measures in the future.
In Japan, a rich fish-eating culture has developed, using various fishery products caught in the waters surrounding Japan. Fishery products, such as sea bream served in the event of celebration, are closely linked with Japanese life. The wisdom of using the whole of the blessings of the sea in various ways (dried fish, fish-paste products, dried bonito, etc.), and techniques to support fish-eating culture (fish knives, connoisseurs, way of using chopsticks, etc.) have also developed.

"Fish-eating culture" is a concept generically naming the wisdom, knowledge, techniques, etc. which have been handed down and accumulated from generation to generation in our eating life, centering on fish, including the techniques of catching, handling and judging fish, way of processing and preserving fish, cooking tools and methods, etc.

Sushi shaped by hand and tempura invented in the Edo period

“Eastern Metropolis Noted Place: Nihombashi Fish Market”
Source: Edo-Tokyo Museum, Tokyo

(2) Change in fish-eating patterns

Per capita annual purchase of fishery products is on the decline. Consumers’ emphasis on “easiness to cook” and “easiness to eat,” together with “easiness to handle” in pursuit of consumer needs, has accelerated the change in fish-eating patterns.

Relationship between consumer needs and distribution/production
(3) Fish-eating culture to be preserved through the consumption of domestic fish

Consumer needs for domestically-produced fish are high, and it is necessary to meet such needs.

<table>
<thead>
<tr>
<th>Prefectures</th>
<th>Local specialties</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hokkaido</td>
<td>Ishikari-nabe (hot pot)</td>
<td>This dish is said to have spread as fishermen used to cook and eat salmon in a pot. It is named after the River Ishikari, a major salmon fishing ground. The dish uses all salmon parts without wasting a bit.</td>
</tr>
<tr>
<td>Aomori</td>
<td>Ichigo-ni</td>
<td>This is a soup of sea urchin ovaries and abalone (in some cases, Neptune whelk, etc. are used in place of abalone). It is named because the reddish mass of the ovaries of the sea urchin looks like wild strawberry (ichigo).</td>
</tr>
<tr>
<td>Shiga</td>
<td>Funa-zushi</td>
<td>This is a kind of sushi, called narezushi, which has improved the preservability of Japanese crucian carp (funa) caught in Lake Biwa through natural fermentation of cooked rice. This is the very prototype of the present Japanese sushi. With its unique strong smell and sourness, you will be addicted to it once you get used to eating it.</td>
</tr>
<tr>
<td>Oita</td>
<td>Buri-no-Atsumeshi</td>
<td>Originally, this is a dish prepared for fishermen on board fishing vessels. A bowl of cooked rice with slices of buri (yellowtail) marinated in soy sauce put on top of it, sprinkled with seasoning. You may pour over hot tea or soup stock as you like.</td>
</tr>
</tbody>
</table>

Sense of security and sense of uneasiness on food

| Source: “Consumer Trend Survey in FY2007,” Agriculture, Forestry and Fisheries Finance Corporation |

Fishery products are rich in nutrients, such as minerals, docosahexaenoic acid (DHA), eicosapentaenoic acid (EPA), etc. There is a study result indicating that the more you eat fish, the less risk you have of cardiac infarction.

Unique local dishes using locally produced fish are inherited as local culinary specialties in various districts.

“100 selections of local culinary specialties in rural, mountain and fishing villages” using fishery products (part)

Source: “100 selections of local culinary specialties in rural, mountain and fishing villages,” Ministry of Agriculture, Forestry and Fisheries
(4) Transmitting fish-eating culture --Signs of new movement--

◇ Face-to-face sales are intensified in large-scale mass retailers, too. The Fish Meister system to nurture intermediaries between consumers and producers, and initiatives to transmit attractiveness of fishery products over the internet are implemented.
◇ It is important for the distribution industry not only to meet consumer needs, but also to give consumers new discoveries and impressions and develop new demands by making effective use of their rich knowledge and information on fishery products.

Case: Fresh fish providing a chance to communicate with customers (Tokyo)

The fresh fish section is always attended by a sales assistant. He explains good ways to cook fish and which fish are in season, and how to prepare the fresh fish bought by the customers for sashimi, grill, etc. according to their request.

The number of young housewives buying fresh fish is also increasing. Face-to-face sales of fresh fish activate communication with customers.

Case: Reciter or “Fish” missionaries. “Fish Meister” system started

A private qualification system “Fish Meister” was started in October 2007 to nurture “Fish” reciters or missionaries.

They learn a wide range of knowledge on fishery products.

They are expected to become intermediaries between consumers and producers in the future.

Case: To develop new markets and expand consumption of fishery products (Soma City, Fukushima Prefecture)

Over the internet, they dispatch information on various aspects of fisheries to consumers in and outside of the prefecture, and sell locally favorite fishery products and various fish not available in large quantities.

Interchange with consumers who have bought goods over the internet is deepened.

◇ It is also necessary to promote food education so that people learn the merits of fish-eating culture and the preciousness of foods, and transmit and spread their learning to children.

Case: Karato Fish-eating School (Shimonoseki City, Yamaguchi Prefecture)

At the Karato Market in Shimonoseki City, people learn the flow of fishing to fish distribution and sales, etc., and cook fish available at the market.

Enjoy learning fish-eating.

Students cooking for the presentation of their home-made fish dishes
It is important to eat fish abundant in the waters surrounding Japan in order to improve our self sufficiency rate of fishery products and preserve our resource-rich waters and fish-eating culture.

Examples of menus in season using domestically-produced fish necessary to raise Japan’s self-sufficiency rate of fishery products for human consumption by one percentage point

If each Japanese person eats more fish in respective seasons than ever, Japan’s self-sufficiency rate will increase!

<table>
<thead>
<tr>
<th>Season</th>
<th>Example Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>Katsuo-no-tataki (Sliced bonito or skipjack tuna with baked surface)</td>
</tr>
<tr>
<td>Summer</td>
<td>Surumeika-no-sugatayaki (Japanese common squid grilled whole)</td>
</tr>
<tr>
<td>Autumn</td>
<td>Sanma Shioyaki (Grilled saury sprinkled with salt)</td>
</tr>
<tr>
<td>Winter</td>
<td>Buri Teriyaki (Sliced yellowtail grilled)</td>
</tr>
</tbody>
</table>

One plate monthly in spring
One plate monthly in summer
One plate monthly in autumn
One plate monthly in winter

Self-sufficiency rate 1%UP!


Consumption of locally-produced fishery products would contribute to (1) connecting the “ring” of material circulation, and (2) activating economic activities including Japanese fisheries and distribution.

“Ring” of material circulation accelerated through linkage among fisheries, distribution and fish-eating
Section 2  Let’s take another look at rich waters

(1) Decline in Japan’s production capacity

- Nearly half of the fishery stocks in the waters surrounding Japan are at a low resource level. The area of underwater plant beds and tidelands has decreased. Decrease of fishery workers and their aging are also progressing.
- It is pointed out that environmental changes on a global scale, such as global warming, may have an impact on Japan’s fisheries, too.

**Resources level in Japan’s surrounding waters in FY2007 (Summary)**

<table>
<thead>
<tr>
<th>Main species and stocks</th>
<th>High level</th>
<th>Medium level</th>
<th>Low level</th>
</tr>
</thead>
<tbody>
<tr>
<td>High level Saury (Northwestern Pacific stock), etc.</td>
<td>Medium level Japanese jack mackerel (Pacific and Tsushima warm current stocks), etc.</td>
<td>Low level Chub mackerel (Pacific and Tsushima warm current stocks), Japanese pilchard (Pacific and Tsushima warm current stocks), etc.</td>
<td></td>
</tr>
</tbody>
</table>

Source: “Marine Fisheries Stock Assessment of Japanese Waters,” Fisheries Agency and Fisheries Research Agency

**Secular change in area of underwater plant beds and tidelands**

- Area of underwater plant beds decreased by 30% in 20 years.
- Area of tidelands decreased by 40% in 50 years.

Source: “National Survey on the Natural Environment,” Ministry of the Environment

(2) Cannot depend too much on import

- Against the global increase in fishery product demand in recent years, Japan has suffered what is called “Kaimake” (*Kaimake* refers to a situation where, due to the worldwide increase in the demand for marine products, the international price has risen and it is no longer possible to import the required amount at the conventional price, which has lowered Japan’s share in the international market.). At present, Japan depends on imports for about 40% of fishery products for human consumption, but cannot depend too much on import.

**World supply of fishery products for human consumption and shares by country**

Sources: FAO Food Balance Sheets (except Japan) and “Food Balance Sheets,” Ministry of Agriculture, Forestry and Fisheries (Japan).
Essentially, the waters surrounding Japan are rich waters where a wide variety of fish can be found. There are more than 3,000 species, including northern and southern fish and shellfish, as well as fresh-water types in brackish waters and fresh water lakes.

By making use of the precious environment, various fisheries have developed. The rules (fishery systems) have also developed to use fishery resources permanently and maintain local order.

Our ancestors have preserved the environment, used only the surplus of production in the waters, and transmitted the resources to the next generations. It is necessary to take another look at the value of the rich waters and the wisdom of our ancestors.

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**Various kinds of fishery products available in Japan’s surrounding waters**

[Fish species with the largest catch quantities (2006)]

1. Mackerel: 650,000 tons
2. Japanese anchovy: 420,000 tons
3. Skipjack: 330,000 tons
4. Scallop: 270,000 tons
5. Saury: 240,000 tons

(Total production: 5,740,000 tons)

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**Sources:**

Section 3 Toward the revitalization of Japan’s rich waters

(1) Widespread fishermen’s leadership -- Preserve our sea by ourselves! --

◊ Fishery resources are reproducible permanently through proper management. It is important to promote thorough resource management, such as limitation of fishing seasons and establishment of operating areas, as well as effective use of resources putting more emphasis on quality (profitability) than quantity.
◊ It is also important to intensify efforts to preserve underwater plant beds and tidelands which grow resources, to maintain sound ecosystems, and to develop human resources shouldering the future of the fisheries.
◊ It is important, too, to provide information in a way that is easy to understand, and gain the understanding of the people.

◊ Case: Transmit Hokkai shrimp to the next generations (Notsuke County, Hokkaido)

The Small sailing trawl fishing, called “Utaseamiryo,” has developed so as not to damage eelgrass, the habitat of Hokkai shrimp, with boat screws.

Before opening the fishing season each year, fishermen themselves make a resource evaluation and determine the catches for the year. An income equalization system is also established.

A system to equalize the blessings from the sea is developed to maintain productivity and business management.

◊ Case: Preservation of tidelands (Gamagori City, Aichi Prefecture)

This area has vast tidelands, and short-necked clam fishery is the key industry here.

Fishermen cultivate bottom mud to supply oxygen into the mud. They collect sea lettuce covering the tideland surface.

Biodiversity of tidelands is preserved and their water quality purification function is improved.

◊ Case: Toward securing supporters of future fisheries (Yamaguchi Prefecture)

Giving support not only to those wishing to enter fisheries from other industries, but also to fishermen’s children.

Local community members are united to give guidance and advice.

When new entrants start up their own business, they will be given assistance to lessen their burden of initial investment and are thoroughly supported until they can begin work.
(2) What each person can do -- Awareness reform and behavior expected of people--

◇ Eco-label system is established to show the fishery products taking into consideration the ecosystem and sustainability of resources.
◇ The idea of “Satoumi (home-sea)” is proposed to maintain the high production capacity of the sea, restore the rich waters and nurture traditional culture by making minimum modifications.
◇ Against the citizens’ rising awareness of environmental problems, there is also a growing interest in the citizen-participation program for maintaining underwater plant beds and tidelands.
◇ The way of living paying attention to resources and the environment is important. Each citizen’s awareness reform and behavior are important.

**<Case: Japan’s own eco-label system, “Marine Eco-Label Japan” started>**

In Europe and the U.S., eco-label systems by private certification organizations have been gradually introduced.
In Japan, too, companies having obtained certification on distribution and processing management are selling their products with the eco-label.

In December 2007, Japan’s own eco-label system, reflecting the characteristics of the Japanese fisheries production and resource management, was established. At the end of 2008, products with Marine Eco-Label Japan are expected to be sold.

**<Case: Learning to restore “Satoumi” in tidelands, NPO Banzu Satouminokai (Kisarazu City, Chiba Prefecture)>**

On the Banzu Tideland in Tokyo Bay, a non-profit organization (NPO) was proposed and established by fishermen to communicate the importance of tidelands.

The NPO aims to restore the sea where not only fishermen, but also many citizens come together.

It transmits information actively and arranges learning through practical experience. It leads exchange activities of community residents in one united body.

**<Case: Kanazawa Hakkei – Council for restoring Amamo (eelgrass) beds (Yokohama City, Kanagawa Prefecture)>**

It is aimed at recovering the rich nature in Kanazawa Hakkei through restoration of Amamo and to transmit valuable nature and culture of the sea to future generations.

Participated by various sectors including fishermen, fisheries research institutes, universities, companies, local schools, citizens and NPOs.

In 2004, spawning of broad-mantle squid on grown Amamo was confirmed.
In order to restore rich waters in the future, it is important to enhance the production capacity of the sea by restoring and creating good environments, such as restoring underwater plant beds and tilling tidelands, and to promote the sustainable use of fishery resources. As global warming is becoming a problem, the possibility of underwater plant beds playing a role in carbon fixation is also expected.

It is necessary to steadily carry out fisheries policy reforms in accordance with the New Basic Fisheries Plan, such as intensification of resource management efforts, etc. It is also necessary to positively provide consumers with information on the state of resources and resource management, fish in season, nutritional properties, etc. and to promote sharing of awareness to preserve the rich environment and resources of the sea. Furthermore, it is necessary to expand the programs in which anyone can participate according to his or her role and ability.

If fishermen, distributors and consumers intensify their cooperation and collaboration from the viewpoint of attaching importance to the linkage of woods, rivers and the sea, synergy effects are expected.
Chapter II  Review of Japanese Fisheries since FY2006
Section 1  Supply and demand of fishery products in Japan
(1) Domestic fishery production
a. Fishery and aquaculture production volume and value

In 2006, Japan’s fishery and aquaculture production volume (including fish and seaweed) was 5.74 million tons, almost the same level as that of the previous year. The production value (including fish and seaweed) was also the same level as that of the previous year at 1,606.9 billion yen.

Change in Fishery and Aquaculture Production Volume and Value

Production volume peaked in 1984 at 12.82 million tons
Production value peaked in 1982 at 2,977.2 billion yen

Far sea fishery
Offshore fishery
Coastal fishery
Inland water fishery and aquaculture

Far sea fishery
Offshore fishery
Coastal fishery
Marine aquaculture
Inland water fishery and aquaculture

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

b. Management of fishery resources in Japan’s surrounding waters

For almost half of the fish species or stocks in Japan’s surrounding waters, the levels of fishery resources are low.

Fifty-one resource recovery plans for 76 fish and a multi-species resource recovery plan have been implemented or are being worked out.

There are cases where resource recovery has been confirmed, such as red snow crab (Sea of Japan stock).

To ensure sustainable fisheries and secure the supply of fishery products, it is necessary for fishery parties, prefectural and national governments to unite to implement resource recovery plans solidly.

State of Implementation of Resource Recovery Plans (as of February 29, 2008)

Catches and Resources of Red Snow Crab (Sea of Japan stock)

Source: Fisheries Agency Sources: Fisheries Agency and Fisheries Research Agency
c. State of Japan's surrounding marine environment

◊ The “Guidelines for countermeasures against rocky-shore denudation” were finalized, identifying causes of rocky-shore denudation and summarizing concrete countermeasures. Efforts were made to install seaweed substrates and create underwater plant beds.
◊ Research was conducted into causes of red tide and technologies to prevent or eliminate red tide and dysoxic water mass were developed.
◊ A panel of relevant government agencies on drifting trash examined how to deal with trash sources and dispose of such trash.
◊ To prevent damage to fisheries by giant jellyfish which emerged in coastal waters in the Sea of Japan, the government took advantage of relevant funds authorized under the FY2005 supplementary budget, etc. to support the surveys and provision of information on the emergence of such jellyfish, implementation of control measures on the sea, etc.
◊ Measures were implemented to prevent and mitigate damage to fisheries by longheaded eagle ray, steller sea lions, cucumaria echinata (a kind of sea cucumber), etc.

Sargassum beds recovered from denudation

(Inland water conditions)

◊ Thirteen fish species, including largemouth bass, and four species from four genera of aquatic invertebrates were designated as invasive alien species for prevention or elimination. In Lake Biwa, the elimination of more than 400 tons is implemented each year to preserve the ecosystem.
◊ Damage by common cormorant occurred. In June 2007, the common cormorant was designated as a game species. In December 2007, the “Act on special measures for the prevention of wildlife damage” was enacted to allow the local municipalities autonomously to take measures to prevent and deal with wildlife damage.
◊ Measures were taken to prevent fisheries animal diseases, such as ayu (sweetfish) coldwater disease, koi herpes virus disease, etc.

Catch quantity of major native fish in Lake Biwa and catch quantity of alien fish per set of stationary net in Lake Biwa (southern area)

![Graph showing catch quantity of major native fish in Lake Biwa and catch quantity of alien fish per set of stationary net in Lake Biwa (southern area).](source: Shiga Prefecture)
(2) Fishery product trade
(Fishery product imports)

◇ Japan’s fishery product imports in 2006 decreased by 5.7% in volume from the previous year to 3.15 million tons, and increased by 2.3% in value to 1,707.4 billion yen.

<table>
<thead>
<tr>
<th>Changes in Fishery Product Import Volume and Value by Major Item</th>
<th>(Volume: 1,000 tons; Value: 100 million yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>2003</td>
</tr>
<tr>
<td>Total import volume of fishery products</td>
<td>3,821</td>
</tr>
<tr>
<td>Total import value of fishery products</td>
<td>17,622</td>
</tr>
<tr>
<td>Shrimp</td>
<td>2,974</td>
</tr>
<tr>
<td>Tuna/marlin</td>
<td>2,434</td>
</tr>
<tr>
<td>Salmon/trout</td>
<td>1,046</td>
</tr>
<tr>
<td>Crab</td>
<td>898</td>
</tr>
<tr>
<td>Prepared shrimp</td>
<td>475</td>
</tr>
<tr>
<td>Prepared eel</td>
<td>625</td>
</tr>
<tr>
<td>Cod roe</td>
<td>511</td>
</tr>
<tr>
<td>Squid</td>
<td>460</td>
</tr>
<tr>
<td>Others</td>
<td>8,199</td>
</tr>
</tbody>
</table>

Source: “Trade Statistics,” Ministry of Finance

◇ Japan remained the world’s largest fishery product importer both in volume and value, accounting for 18% ($14.7 billion) of the world’s total fishery product import value and 11% (3.34 million tons) of the world’s total import volume. But the nation’s fishery product imports have been declining in recent years.

◇ China has raised its position as a fishery product exporter in recent years. It was the world’s top exporter both in value ($7.6 billion) and volume (2.54 million tons) in 2005. China was also the world’s largest fishery product importer in terms of volume (3.65 million tons, accounting for 12% of the world total).

(Fishery product exports)

◇ Japan’s fishery product exports in 2006 increased by 26.8% from the previous year in volume to 590,000 tons and by 16.7% in value to 204.1 billion yen. Exports of mackerel, dried sea cucumber, etc. increased substantially. Aiming to attain the export level of one trillion yen a year by 2013 as a national fishery product export goal, the government is implementing measures to expand exports, such as improvement of export environment, transmission of information on Japanese foods and food materials, etc

<table>
<thead>
<tr>
<th>Changes in Fishery Product Export Volume and Value by Major Item</th>
<th>(Volume: 1,000 tons; Value: 100 million yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>2003</td>
</tr>
<tr>
<td>Total export volume of fishery products</td>
<td>307</td>
</tr>
<tr>
<td>Total export value of fishery products</td>
<td>1,365</td>
</tr>
<tr>
<td>Pearl</td>
<td>332</td>
</tr>
<tr>
<td>Salmon/trout</td>
<td>37</td>
</tr>
<tr>
<td>Mackerel</td>
<td>6</td>
</tr>
<tr>
<td>Dried sea cucumber</td>
<td>65</td>
</tr>
<tr>
<td>Alaska Pollack</td>
<td>14</td>
</tr>
<tr>
<td>Prepared scallop ligament</td>
<td>95</td>
</tr>
<tr>
<td>Scallop</td>
<td>91</td>
</tr>
<tr>
<td>Others</td>
<td>790</td>
</tr>
</tbody>
</table>

Source: “Trade Statistics,” Ministry of Finance
(3) Processing and distribution of fishery products

- Production of major processed fishery products in 2006 decreased slightly from the previous year in volume.
- In 2006, the volume of products landed at major Japanese fishing ports was at the same level as that of the previous year. Their average price was 160 yen per kg. Consolidation of local fish markets, releasing of rights to make bids in auctions, and other regionally devised measures are being taken to enhance market functions.
- Trade in fishery products at markets in consumption areas is on the decline in volume and share. Measures are being taken to enhance market functions and maintain product quality.

Changes in Volume of Fishery Products Landed at Major Japanese Fishing Ports

![Graph showing changes in volume of fishery products landed at major Japanese fishing ports from 1996 to 2006.]

Source: “Annual Fishery Product Distribution Statistics,” Ministry of Agriculture, Forestry and Fisheries

<Retail prices of fishery products in Tokyo are low, compared with those in major overseas cities>
Retail prices of fishery products (weighted average of salmon, prawn, canned tuna, tuna and cod roe) in Tokyo are lower than those in six major overseas cities as of November 2006. Salmon and tuna are priced lower than in six major overseas cities, and the price difference of tuna is particularly remarkable.

![Graph showing retail prices of fishery products in Tokyo and six major overseas cities.]

Source: “Survey results of food retail prices in Tokyo and six major overseas cities,” Ministry of Agriculture, Forestry and Fisheries

- Reduced cost of fishery products through rationalization of production and distribution of fishery production equipment

<Case: “Large and medium-sized purse seine fishery” rationalized into mini fleet (Hachinohe City, Aomori Prefecture)> They usually operate in fleets of one purse seiner, two transport vessels and two scout boats. Tentatively they operated in fleets of one scout boat with transport function and one purse seiner.

Substantial cost reduction and improvement in living comfort were realized as a result of reduction in vessel construction cost and the number of crew members.

Fig.: A fleet of two vessels (Usually made up of five vessels)
Securing safety of fishery products and enhancing their labeling

In order to provide consumers with safe and reliable fishery products, fishery product processing plants and landing area markets have introduced the HACCP (Hazard Analysis and Critical Control point) system and other sanitary control systems.

All food and drink for general consumers are labeled under the JAS (Japanese Agricultural Standard) Act. General rules on the names of fishery products were reviewed, taking into consideration the importance of local names conveying the features of respective districts.

Quality Labeling Methods and Their Concrete Examples

**Fresh foods**

<table>
<thead>
<tr>
<th>Name</th>
<th>Quantity</th>
<th>Place of origin</th>
<th>Method of preservation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salted cod roe</td>
<td>1 fish</td>
<td>Pacific Ocean, Russia</td>
<td>Preserve below 10°C</td>
</tr>
</tbody>
</table>

**Processed foods**

<table>
<thead>
<tr>
<th>Name</th>
<th>Quantity</th>
<th>Place of origin</th>
<th>Method of preservation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salted mackerel</td>
<td>1 fish</td>
<td>Atlantic Ocean, USA</td>
<td>Preserve below 10°C</td>
</tr>
</tbody>
</table>

**Imported products**

<table>
<thead>
<tr>
<th>Name</th>
<th>Quantity</th>
<th>Place of origin</th>
<th>Method of preservation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic mackerel</td>
<td>5 fish</td>
<td>Norway</td>
<td>Preserve below 10°C</td>
</tr>
</tbody>
</table>

For improving the distribution base of fishery products and ensuring their hygiene, highly sanitary cargo handling facilities with the HACCP system were established.

Thorough sanitary control and the effective movement of fishery products have contributed to improvement in product quality.

Besides the freight exit of the cargo handling place, a direct sales facility managed by the fishery cooperative was set up. The facility is bustling with shoppers.

**Case: Safe fishery products to consumers (Ishiki Town, Aichi Prefecture)**

For six processed fishery food groups, processed eel, and shavings of dried bonito, it is required to label the place of origin of the raw material in addition to the requirements stated above. For fresh foods, for business use, the same labeling is required.

*If there are two or more places of origin of a raw material, it is required to enter them in the order of the highest to lowest percentage of the raw material. If there are three or more places of origin of a raw material, it is allowable to specify the places of origin ranked third or lower in the weight percentage of the raw material as "Others."
(5) Consumption of fishery products and self-sufficiency rate

◇ In 2006, fishery products supplied for domestic consumption decreased by 4% from the previous year to 9.82 million tons (on an original weight basis). Fishery products for human consumption declined 6% to 7.36 million tons, accounting for some 70% of the total supply for domestic consumption. Per capita annual fishery product supply for human consumption came to 57.6 kg on a gross food basis and to 32.4 kg on a net food basis.
◇ The self-sufficiency rate of fishery products for human consumption in 2006 rose by 2 percentage points from the previous year to 59% (as estimated).

Fishery Product Supply/Demand Situation

Changes in Self-sufficiency Rate of Fishery Products for Human Consumption

◇ In some cases, local fishery products are used for school lunches to promote healthy eating education using the “Food Balance Guide” and school children’s understanding about local eating culture.

Case: Let’s make an “Ohseto Shokudo” (seafood restaurant) in our town. (Saikai City, Nagasaki Prefecture)

13 new menu items using local fresh materials, such as “Nekketsu fish burger” using filefish, are prepared and served.

With the cooperation of local farming families and the fishery cooperative, school children’s gratitude to local people and interest in fish eating are deepened.
Section 2  International developments surrounding Japan's fisheries

(1) Bilateral fishery relations

◇ Japan conducts its fishing operations in the waters off South Korea and China, and vice versa, under its bilateral fishery agreements with the two countries.
◇ Japan conducts its fishing operations based on three intergovernmental agreements with Russia:
  (1) Agreement between the Government of Japan and the Government of the Union of Soviet Socialist Republics Concerning the Mutual Relations in the Field of Fisheries off the Coasts of the Two Countries
  (2) Agreement between the Government of Japan and the Government of the Union of Soviet Socialist Republics on Cooperation in Fishery
  (3) Agreement between the Government of Japan and the Government of the Russian Federation on some matters of cooperation in the field of fishing operations for marine living resources
◇ Japanese fishing vessels operate in the 200-mile zones of the Pacific island countries and African countries under bilateral government-to-government or private-level agreements.

(2) Crackdown on foreign fishing vessels in illegal operations

◇ Japan monitors and cracks down on foreign fishing vessels’ illegal operations in its exclusive economic zone and territorial waters. In 2007, the Fisheries Agency seized 13 foreign fishing vessels, conducted boarding inspections on 81 vessels and confiscated fishing gear from 40 vessels. Recently, foreign fishing vessels’ malicious actions have been prominent. Some foreign fishing vessels have rejected boarding inspections and fled from Japanese patrol boats. Japan has thus been enhancing its monitoring and crackdown activities.

Fisheries Agency's Boarding Inspections and Other Actions

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of boarding inspections</th>
<th>Number of fishing gear confiscation cases</th>
<th>Number of seizures</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>293</td>
<td>67</td>
<td>128</td>
</tr>
<tr>
<td>2004</td>
<td>215</td>
<td>57</td>
<td>40</td>
</tr>
<tr>
<td>2005</td>
<td>148</td>
<td>44</td>
<td>35</td>
</tr>
<tr>
<td>2006</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>13</td>
<td>81</td>
<td></td>
</tr>
</tbody>
</table>

Nationality of Seized Foreign Vessels

<table>
<thead>
<tr>
<th>Year</th>
<th>South Korea</th>
<th>Taiwan</th>
<th>China</th>
<th>Russia</th>
<th>Cambodia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>23</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>35</td>
</tr>
<tr>
<td>2004</td>
<td>14</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>2005</td>
<td>9</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>2006</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>2007</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Fisheries Agency
As for tuna (including bonito), which are highly migratory species, Japan promotes proper resource management through all the five regional fisheries management organizations (RFMOs) including the International Commission for the Conservation of Atlantic Tunas (ICCAT) in accordance with the United Nations Convention for the Law of the Sea.

In order to counter IUU (illegal, unreported and unregulated) fishing activities and operations by countries other than parties to tuna fishing regulation conventions, Japan, through RFMOs, has taken such measures as a ban on imports of tuna other than those produced through justifiable procedures.

Tuna Regional Fisheries Management Organizations and Stock Levels

Source: “FY2006 Present Conditions of World Fishery Resources,” Fisheries Agency and Fisheries Research Agency

At the 27th session of Food and Agriculture Organization of the United Nations (FAO)’s Committee on Fisheries (COFI), an agreement was reached on the development of the technical guidelines for the management of deep sea fisheries, etc.

Current situation of international fisheries cooperation

Japan implements grant aid for fisheries and technical cooperation with other countries through the Japan International Cooperation Agency (JICA).
The Overseas Fishery Cooperation Foundation transfers technologies and know-how to fishery operations of coastal countries.
Japan provides support to the Southeast Asian Fisheries Development Center (SEAFDEC).
Section 3 Fishery business management

(1) Trends of fishery operators

◇ In 2006, the number of operators of sea-water fisheries and aquaculture declined by 3% from the previous year to 121,000. Of these, 94% are family-based coastal fishery operators.

(2) State of fishery business management

◇ In 2006, fishery income per coastal fishery household (coastal fishery households with fishing vessels, marine aquaculture households, and households with small scale stationary nets) was 2.97 million yen. Fishery income is on the declining trend over the long term.
◇ Corporate fishery operators using 10-ton or larger powered fishing vessels continued to suffer losses on fishery operations. They offset these losses with non-fishery and/or non-operating profits. Among the operators using 50-ton or higher level of vessels, the higher the level, the higher the proportion of fuel oil expenses in the total fishery expenditure, and the wider the losses on fishery operations.
◇ They still depend on borrowings for most of their capital spending. They have also suffered short-term cash flow problems.

Changes in Fishery Household Income

<table>
<thead>
<tr>
<th>Year</th>
<th>Average fishery income per coastal fishery household</th>
<th>Coastal fishery household with fishing vessel</th>
<th>Marine aquaculture household</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>299.5</td>
<td>225.7</td>
<td>686.9</td>
</tr>
<tr>
<td>2002</td>
<td>287.1</td>
<td>226.7</td>
<td>602.3</td>
</tr>
<tr>
<td>2003</td>
<td>271.1</td>
<td>215.6</td>
<td>570.8</td>
</tr>
<tr>
<td>2004</td>
<td>282.3</td>
<td>215.3</td>
<td>626.2</td>
</tr>
<tr>
<td>2005</td>
<td>280.1</td>
<td>214.3</td>
<td>611.4</td>
</tr>
<tr>
<td>2006</td>
<td>296.9</td>
<td>246.6</td>
<td>507.6</td>
</tr>
</tbody>
</table>

Source: “Fishery Business Management Survey Report,” Ministry of Agriculture, Forestry and Fisheries
Note: Because of a significant review of the survey system made in the 2006 survey, the survey results in 2006 are not continuous from the previous ones.

(3) Toward stabilization of fishery business management

◇ The “New Management Stabilization Measures” will be introduced in 2008 to mitigate relatively light revenue decreases not covered by the current fishery mutual aid insurance. The new measures are designed to support fishery operators’ business management improvement efforts, including energy saving, and to stabilize their business management.

Image of New Fishery Business Stabilization Measures

- Reserve fund system
  - The reserve fund contributed by fishery operators themselves (managed individually) and the reserve fund financed by the government (collectively managed in pool) will be the funds to cover the decrease in earnings.
  - Contributions by fishery operators are returnable when the term ends.

- Insurance system
  - Insurance premiums contributed by fishery operators themselves (collectively managed in pool) will be the funds to cover the decrease in earnings. Premiums will be subsidized by the national treasury.
  - The contributions (premiums) by fishery operators are not returnable.
(4) State of fishery workers

◇ In 2007, the number of fishery workers declined by 3.8% from the previous year to 204,000. These workers aged further. Those aged 65 or over accounted for 37.4% of fishery workers, up 1.0 percentage point from the previous year.

◇ It is necessary to recruit and train new fishery workers. Efforts are being made to provide job information and on-the-job practical training so as to develop future fishery workers and promote the entry of workers from industries other than fisheries.

Changes in Number of Fishery Workers

![Chart showing changes in number of fishery workers]


◇ In 2006, the number of Japanese workers employed for offshore and far-sea fisheries declined by 30% from five years ago to 23,000.

◇ At the 96th Annual Conference of the International Labour Organization (ILO), the new Work in Fishing Convention was adopted, enabling the introduction of the alternative standards on the equipment of fishing vessels with the consent of both the labor and employer sides.

◇ The number of fishing vessels involved in marine accidents in 2007 stood at 795, down 97 from the previous year.

◇ In February 2008, the Japan Maritime Self-Defense Force’s Destroyer Atago collided with a fishing vessel Seitoku Maru. In addition to such accidents, dangers always exist to fishing vessels. Fishery workers are advised by fisheries cooperatives, etc. to wear life jackets any time they are on the sea.

(5) Fisheries cooperatives

◇ At the end of FY2006, Japan had 2,273 fisheries cooperatives, including 1,267 for coastal districts, 864 for inland water districts and 142 sector-specific cooperatives.

◇ Reflecting the recent deterioration in the environment surrounding the fisheries industry, the fisheries cooperatives' operations leveled off or declined. Three-quarters of fisheries cooperatives posted operating losses.

◇ Efforts are being made to merge fisheries cooperatives in order to enhance their organization and business infrastructure. In nine prefectures, a system of one fisheries cooperative in one prefecture is established. Taking into consideration the increasingly severe business management of fisheries cooperatives, the National Federation of Fisheries Cooperative Associations has developed the “JF (Japan Fisheries cooperative) business management improvement guidelines” to improve the business management of fisheries cooperatives.
Section 4  Development of safe, vigorous fishing villages and demonstration of multiple functions of fisheries industry and fishing villages

(1) Improvement of living environment and enhancement of anti-disaster capacity for fishing villages

- Many fishing villages are located in narrow lands and are essentially vulnerable to disasters. They have lagged behind urban regions in infrastructure development, and their people are aging.
- Efforts are being made by fishing regions to cooperate to enhance anti-disaster capacity under the “Guideline to develop disaster-resistant fishing regions.”

**Aging ratio and ratio of roads unavailable for automobiles in cities and fishing villages**

<table>
<thead>
<tr>
<th></th>
<th>Small cities</th>
<th>Fishing villages</th>
<th>Cities</th>
<th>Fishing villages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ratio of roads unavailable for automobiles</strong></td>
<td>17.5%</td>
<td>23.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aging ratio</strong></td>
<td></td>
<td></td>
<td>19.5%</td>
<td>30.4%</td>
</tr>
</tbody>
</table>

Sources: “Survey on Villages behind Fishing Ports,” Fisheries Agency; “National Census,” “Public Facility Survey,” Ministry of Internal Affairs and Communications

(2) Exploitation of local resources for invigoration of fishing villages

- Measures are implemented to exploit local resources of fishing villages for organizing morning markets and providing fish cuisine to help invigorate these villages.
- Female fishery workers play key roles in invigorating local communities by processing and selling unexploited resources and by providing goods for morning markets.

**<Case: A small but hearty welcome market “Kodansehe Market” to invigorate the community (Saiki City, Oita Prefecture)>**

A morning market is organized to welcome visitors with the local nature, fresh fish and local cuisine. The market is named “Kodansehe (meaning ‘Come again’) Market.”

Attitudes of local community members have also changed. Now they feel worthwhile in communicating with visitors and positively participate in beach cleaning activities, etc.

**<Case: Efforts to spread fish eating --Heart of “Kan Kan Corps” succeeded from generation to generation-- (Matsue City, Shimane Prefecture)>**

A women’s group with a long history said to have been formed centering around women peddlers called “Kan Kan Corps.”

They are actively engaged in labor saving through mechanization, and studies and development of fish cuisine and new products for sale in morning markets, etc. Relation between the women’s group and the local community is close. The heart of the “Kan Kan Corps” is inherited from a long time ago.
(3) Multiple functions of fisheries industry and fishing villages

The fisheries industry and fishing villages have multiple functions in addition to their primary function to supply fishery products. These functions include conservation of natural environments, protection of people’s lives and properties, provision of places for people to live and exchange, and formation and preservation of local communities.

Various roles of fisheries industry and fishing villages

- Provision of places for people to live and exchange
  - Marine recreation
  - Learning through practical experience
- Protection of people’s lives and properties
  - Marine salvage
  - Border patrol
- Development and preservation of local communities
  - Job creation
  - Creating and passing down culture
- Conservation of natural environments
  - Supplementing material recycling
  - Conserving ecosystems

Fisheries are a key industry on isolated islands. These islands are disadvantaged in transportation. The decline of fishery workers and their aging on these islands are faster than on the mainland. Efforts are going on to exploit the isolated-island fisheries revitalization subsidies to add value to fishery products.

(4) Pursuing invigoration of local fisheries

Efforts are going on to promote fishery business management improvement and village development by making effective use of local resources toward the invigoration of local fisheries.

<Emperor’s Cup (Fisheries Division): Awarded to the Nomaike Tuna Culture Cooperative Business Unit, South Satsuma Fisheries Cooperative (Kagoshima Prefecture)>

The Unit has developed its own original techniques to improve the tuna seeding survival rate and tuna meat quality, delivery processing technologies, etc.

It has also brought about economic effects to the local community through employment expansion.

<Emperor’s Cup (Village development Division): Awarded to the Promotion Conference to consider the future of Izari (Tokushima Prefecture)>

With the consolidation of schools in the Izari district faced with fewer children, more aged people and a decrease in population, local residents organized fishery village experience events and realized commercialization of sea oak.

They have made effective use of local resources to develop and revitalize their village.
Fisheries Policy for FY2008  (Executive Summary)

Based on the new basic fisheries plan developed in March 2007, the Government will work to secure the stable supply of fishery products to the people and establish strong fisheries and rich, vigorous fishing villages, the bases for securing such supply, by promoting the restoration and management of fishery resources and by fostering and securing internationally competitive fishing operators through measures such as the restructuring of fisheries using fishing vessels and the introduction of new fishery business management stabilization measures for fishing operators.

I Promoting the restoration and management of low-level fishery resources

1. Promoting surveys and research into fishery resources

The Government will promote evaluations and projections of the impact of global environmental changes, including global warming, on major fish species. In particular, the government will try to elucidate the mechanism of, and develop a model for, the carbon cycle in underwater plant bed ecosystems, and evaluate the impact of global warming on fisheries in Japan's surrounding waters as well as developing future projection technologies. In coastal and deep bay waters, the Government will try to develop new techniques to monitor the impact of global warming on coastal fishing ground environment over a wide area on a continuous basis, and study the global warming impact evaluation and adaptation measures.

Study of the impact evaluation and adaptation measures to global warming on the coastal fishing ground environment

2. Resource management in Japan’s Exclusive Economic Zone, etc.

3 Promoting international resource management in waters, including the high seas
4. Conserving and developing overseas fishing grounds and promoting international cooperation

5. Improving the living environment for aquatic animals and plants in sea and inland waters and promoting aquaculture

For bluefin tuna culture, in order to secure a stable supply of bluefin tuna to consumers, the Government will, among other things, develop technologies for transporting small-sized bluefin tuna caught by purse seiners and caging technologies enabling bluefin tuna culture in waters unused to date due to severe marine weather conditions.

II Fostering and securing internationally competitive fishery operators and developing a vigorous working environment for fisheries

1. Intensifying measures to foster and secure internationally competitive fishery operators

The government will implement projects focusing on the restructuring of fisheries using fishing vessels and promote fishery business management reorganization through the introduction of fishing operation and production systems; prioritizing profitability and the acquisition of energy- and labor-saving alternative vessels, etc. Also, the government will introduce new fishery business management stabilization measures to mitigate the impact of earnings fluctuations on fishery business management, covering the fishery operators systematically undertaking business management reform. To help local fishery operators implement their business management reform projects, the Government will take measures to support part of the loan balance for model projects approved on their business management improvement plans and financed mainly by loans in their introducing equipment, etc.
2. Promoting the rationalization of production, and the distribution and utilization of fishery production equipment

To promote strong fishery business management and the restructuring of fisheries in order to keep fisheries sustainable, even amid soaring global oil prices, the Government will provide low-interest loans for working capital, and support efforts to facilitate guarantees for such loans, etc. to the fishery operators undertaking improvement in efficiency of fuel oil distribution through fisheries cooperatives’ fuel oil supply systems and conversion to energy-saving fishing operations.

3. Appropriate operation of fishing insurance systems

4. Developing a vigorous working environment for fisheries

In order to foster future workers with expertise in fishing and fisheries to support local communities, the Government will promote the cooperation between local fishery high schools, etc. and local fisheries to give students practical education in fishing and processing companies, etc.

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**Urgent measures to cope with soaring fuel oil prices**

Measures to promote the restructuring of small-sized fisheries (Newly introduced)

<table>
<thead>
<tr>
<th>Present situation</th>
<th>Plan for a general conversion to energy-saving fishing operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability worsened greatly due to a rise in fuel oil prices</td>
<td>The reduction in light would result in decreased catches (Decreased by about 20%, according to the studies by the Fisheries Research Agency)</td>
</tr>
<tr>
<td>If only certain fishing vessels implemented the measure to reduce light, they alone would suffer from a decrease in catches.</td>
<td>Government support to mitigate the risk of a decrease in catches</td>
</tr>
<tr>
<td>All vessels go fishing every day</td>
<td>Reduction in the number of operating vessels through a reduced number of fishing vessels</td>
</tr>
<tr>
<td>Gill nets and gill netters crowd together in a narrow fishing ground</td>
<td>Arrangement on individual fishing days for small groups in turn (rotation system)</td>
</tr>
<tr>
<td>Going at full speed directly to fishing grounds to secure a good location</td>
<td>Going to fishing grounds at speed with less fuel consumption</td>
</tr>
<tr>
<td>If necessary, a pooling system will be introduced to share profits among fishery operators under a certain rule</td>
<td></td>
</tr>
</tbody>
</table>

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**Project to foster future workers to support local fisheries, mainly in fishery high schools, etc.**

(Fisheries Agency) ~ Cooperation ~ (Prefecture, Regional center for securing and fostering fishery workers (Coordinator)) ~ Fisheries cooperatives ~ Fishing companies ~ Processing companies, etc.

1. Practice education on site
2. Practical teaching at school
3. Career path
4. Collaborative research
5. Committee for promoting cooperation in fostering human resources

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**Fishery high schools, etc.**
III Developing processing, distribution and consumption measures to secure a stable supply of fishery products
1. Enhancing the sales capacity of fish-landing areas, and improving and upgrading distribution
2. Improving value added through the processing of fishery products
3. Enhancing retailers
4. Securing fishery product imports and developing export strategies positively
5. Promoting the expansion of fishery product consumption and fish-eating education through the development of confidence-based networks linking producers to consumers

IV Developing and diffusing new technologies to improve the future of the fisheries industry
1. Developing and diffusing new technologies to meet workplace needs
2. Promoting the exploitation and utilization of biomass resources
3. Creating, protecting and exploiting intellectual properties

V Comprehensive development of fishing ports, grounds and villages, and demonstration of multiple functions of fisheries industry and fishing villages
1. Integral development of fishing ports and grounds for the creation of powerful production areas
2. Developing safe, vigorous fishing villages
3. Promoting harmony between fisheries and marine recreation in the use of sea waters
4. Demonstration of multiple functions of fisheries industry and fishing villages

VI Reorganizing fisheries industry organizations
1. Management and business reforms at fisheries cooperatives
2. Reorganizing other fisheries-related organizations

VII Other important measures
1. Promoting biodiversity conservation measures

Considering the development of the "Ministry of Agriculture, Forestry and Fisheries' Biodiversity Strategy" and the "Third National Biodiversity Strategy," and in order to contribute to the development of sustainable fishery production compatible with biodiversity conservation, including conservation of the fishing ground environment as the basis for fishery production, the Government will promote measures to conserve seas and oceans, including "satoumi" (community seas), by promoting the preservation and management of underwater plant beds and tidelands, etc. comprehensively.
2. Efforts to promote WTO negotiations
3. Efforts to promote economic cooperation, including Economic Partnership Agreements (EPAs) and Free Trade Agreements (FTAs)
4. Promoting the development and utilization of statistics to meet policy needs

**VIII Efforts to promote measures on fisheries comprehensively and systematically**

1. Building well-organized and easy-to-understand policy structures and securing transparency
2. Developing measures from the perspective of public interest, taking into consideration the viewpoints of consumers and citizens
3. Promoting the demonstration of originality and ingenuity of business operators and fishery production areas
4. The effective and concentrated operation of financial measures
5. Improving reform roadmap control and reform measures, and building a system of promoting measures effectively and efficiently