

**FY2011
Trends in Fisheries**

**FY2012
Fishery Policy**

(White Paper on Fisheries: Summary)

This document is a report on the state of fisheries and the policy enacted during FY2011 in accordance with the provisions of Article 10, Paragraph 1 of the Fisheries Basic Act (Act No. 89 of 2001) as well as the policy to be enacted in FY2012 in accordance with the provisions of Paragraph 2 of said Article.

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Chapter I: [Special Feature] The Great East Japan Earthquake —The Future of Japan's Fishing Industry in Light of Reconstruction

Section 1: Massive damage from the Great East Japan Earthquake and Tsunami

(1) An overview of the damage

- A magnitude 9.0 earthquake struck off the Sanriku coast on March 11, 2011. The earthquake generated a tsunami that caused serious damage to the nation's fishing industry, primarily in the seven prefectures from Hokkaido to Chiba along the Pacific coast.
- The tectonic shift that coincided with the earthquake caused land subsidence in the Tohoku and Kanto regions along the Pacific coast. Fishing ports, markets, and processing plants suffered water damage and flooding.

(2) Damage to the fishing industry

- The damage caused to fishery-related facilities (as of March 5, 2012) has reached 1.2637 trillion yen. The damage in three prefectures, Miyagi, Iwate, and Fukushima, was particularly large, at 668 billion yen, 397.3 billion yen, and 82.4 billion yen, respectively, or 91% of the nationwide total.
- Fishery-related facilities suffered massive damage, including: (1) fishing ports; (2) fishing vessels; (3) aquaculture facilities and products; (4) communal facilities (markets, fueling stations, ice making and refrigeration facilities, salmon hatcheries, seedling production facilities, etc.); and (5) fishery processing plants

Fishery-related damage caused by the Great East Japan Earthquake and Tsunami (as of March 5, 2012)

Total damage: 1.2637 trillion yen (7 affected prefectures: 1.2544 trillion yen)

Major types of damaged property	Nationwide		7 Affected Prefectures	
	Extent of damage	Damage (in billion yen)	Extent of damage	Damage (in billion yen)
Fishing port facilities	319 ports	823.0	319 ports	823.0
Fishing vessels	28,612 vessels	182.2	28,479 vessels	181.2
Aquaculture facilities and products		133.5		125.4
(Aquaculture facilities)		(73.8)		(71.9)
(Aquaculture products)		(59.7)		(53.4)
Communal facilities	1,725 facilities	124.9	1,714 facilities	124.7
Total		1,263.7		1,254.4

*1: Damage was compiled from prefectural reports and are current as of March 5, 2012.

*2: The 7 affected prefectures are Hokkaido, Aomori, Iwate, Miyagi, Fukushima, Ibaraki, and Chiba.

*3: In addition to the damage listed here, there was approximately 160 billion yen in damage to fishery product processing plants and ice making/refrigeration facilities owned by private companies (Source: Hearings with fishery product processors' associations)



Fishing port pier destroyed by the earthquake and tsunami (Ishinomaki City, Miyagi Prefecture)



Fishing vessel swept ashore by the tsunami (Kesenuma City, Miyagi Prefecture)



Fish landing facility damaged by the tsunami (Miyako City, Iwate Prefecture)

- Debris washed into the sea by the tsunami has adversely affected fishery and aquaculture operations in many ways.
- Coastal ecosystems may have been significantly affected by the tsunami and subsidence. Fishery and marine research institutions have joined forces to comprehensively study and analyze the recovery of seaweed beds and tidal flats as well as the impact of hazardous substances on the ecosystem.

Section 2: Recovery and reconstruction efforts in the fishing industry

(1) Emergency response in the wake of the disaster

- The Ministry of Agriculture, Forestry and Fisheries (MAFF) established the MAFF Earthquake Response Headquarters on March 11, immediately following the earthquake.
- The Fisheries Agency's fishery patrol and research vessels worked with the private sector to transport relief supplies to the affected areas as part of MAFF's relief efforts.
- Since the earthquake, fishery-related entities around Japan have provided a variety of support to the affected areas, including the transportation of emergency relief supplies, the supply of fuel oil by fishery organizations, and the cooperation of fishery processors in providing food aid.



The Fisheries Agency's fishery patrol vessels formed a convoy with private boats in order to provide focused assistance to isolated villages around the Oshika Peninsula in Miyagi Prefecture. (Photo: The whale research fleet's flagship, *Nisshinmaru*, loads relief supplies onto a purse seiner's skiff boat.)



Fishery educational institutions from around Japan used their training vessels to deliver supplies to the affected areas. (Photo: National Fisheries University's *Koyomaru*. In addition to transporting relief supplies, the ship's dining hall and baths were provided for disaster victims' use.)

(2) Implementation of full-scale recovery and reconstruction measures

- In addition to early recovery initiatives, full-scale reconstruction efforts using funds from the FY2011 supplementary budget were implemented in accordance with the Fisheries Recovery Master Plan (June 28) and the Basic Disaster Recovery Policy for the Great East Japan Earthquake (July 29). Furthermore, the FY2012 budget includes various items focusing on policies aimed at resuming fishery industry operations.

Comprehensive and integrated reconstruction of various sectors constituting the fishing industry

Response to the nuclear power plant accident

- Strengthen national government's efforts for tackling the accident, including promoting inspections for radioactive materials contained in fish products
- Disseminate food safety information overseas

1. Fishing ports

- Secure the functions necessary for the whole region at an early stage, while sharing functions among fishing ports
- (1) Fishing ports serving as the national production/distribution bases for fish products
- (2) Fishing ports serving as the production/distribution bases for local fishing industry
- (3) Other fishing ports

2. Fishing grounds and resources

- Support removal of debris from fishing grounds in which early resumption of fishing activities should be prioritized
- Continuous research on the fishing ground environment

8. Fishing communities

- Promote disaster-resistant fishing communities while respecting the wishes of local residents
- Secure optimum disaster prevention capabilities according to the circumstances of fishing communities
- Promote implementation of more ecological operations and the creation of a sixth industry

Promote reconstruction of Japan's fisheries as a whole by taking care of various sectors constituting the fishing industry and considering the local wishes

3. Fishing vessels and fisheries management

- Promote modernization and rationalization of fishing vessels and fleets
- Introduce fishing vessels for joint use, and promote joint and collaborative operations
- Ensure supply of fish products through measures to respond to fuel price hikes, etc.

7. Fisheries cooperatives

- Restructure organizations of fisheries cooperatives that support local fisheries
- Ensure the soundness of JF marine banks through capital injections

6. Fishery business management

- Secure employment opportunities for affected fishers through removal of debris, etc.
- Promote coordination between local fishers and private companies

4. Aquaculture and stock enhancement

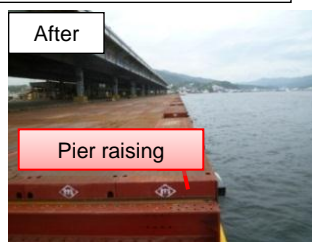
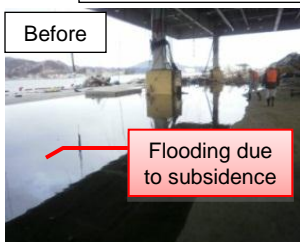
- Promote joint or collaborative operations in order to foster highly productive aquaculture operators
- Reconstruct system for producing and releasing seedlings of salmon, etc.

5. Fishery processing and distribution

- Promote integration of facilities or formation of facility complex according to local wishes
- Support creation of a sixth industry and the improvement of quality and sanitation management
- Restructure landing area markets in a manner consistent with the reconstruction of fishing ports

Reconstruction with Budgeted Projects (Example)

Pier raising
(Kesenuma Fishing Port, Miyagi Prefecture)



Renovation of an ice making facility
(Miyako Fishery Cooperative, Iwate Prefecture)



(3) Recovery and reconstruction efforts in the affected communities

- People in the fishing industry in the affected regions have devoted themselves to the efforts to resume their businesses. Meanwhile, private companies, NPOs (Nonprofit organizations), and consumers have begun to engage in fishery industry reconstruction assistance efforts in the affected areas.
- Example of these include: (1) initiatives in which fishery-related entities stand together to create hubs for regional revitalization; (2) inter-prefectural cooperation among fishery-related entities; (3) support from private companies and NPOs; and (4) resumption of business by connecting producers directly to consumers and support for business expansion.

(1) Initiatives in which fishery-related entities stand together to create hubs for regional revitalization

- Resumption of wakame cultivation in collaborative operation (Taro Town Fishery Cooperative, Iwate Prefecture)
- Initiatives toward revitalizing one of the nation's premier oyster growing areas (JF Miyagi, Ishinomaki Bay Branch)
- Kesennuma Fish Market: Still Number One in Fresh Skipjack Landings (Kesennuma Fishery Cooperative, Miyagi Prefecture)



In Kesennuma, the Prefecture, city and fishery cooperative worked together to prepare for the skipjack landings in mid-June. The first landing was made on June 23 and the port kept its number one spot in fresh skipjack landings for the fifteenth year in a row.

(2) Inter-prefectural cooperation among fishery-related entities

- Assistance from Naruto (Tokushima Prefecture) for Sanriku wakame-producing regions
- Free oyster seeds provided from Akkeshi Town, Hokkaido to Iwate Prefecture
- Introduction of efforts to use fishers' networks to provide vessels to the affected areas (Project Moyai)



Tokushima Prefecture, a wakame-producing region, provided wakame seeds to the affected areas in response to a request from Miyagi Prefecture. Tokushima wakame is now being grown in Kesennuma Bay and other area along the Miyagi coast.

(3) Support from private companies and NPOs

- Project to reinstate small fishing vessels damaged by the disaster (Japan Foundation and others)
- 10 yen per parcel donated to fishery industry reconstruction (Yamato Holdings)
- Funds provided to purchase new boats and fund a fishery scholarship (Suntory Holdings)
- Fund for fishing industry recovery established by 20 companies (Signal of Hope Project)



The Signal of Hope Project was launched with funding from 20 companies to provide swift assistance by donating refrigerated containers to disaster-stricken fish markets.

(4) Resumption of business by connecting producers directly to consumers and support for business expansion

- Regeneration of Sanriku oyster aquaculture with subscription system ("Save Sanriku Oysters")
- Support through the food chain for the restoration of the affected areas (Local Miyagi Food and Reconstruction Project Network).



A project was launched by an internet oyster sales company to assist oyster farmers with consumer-direct delivery using a subscription system. Seeds were provided to oyster farmers.

(4) Progress of recovery and reconstruction

The state of fishery facility recovery efforts is as follows (as of April 18, 2012): The government has been and will be, steadily promoting reconstruction efforts for each of the stated items.

Recovery and reconstruction efforts against damage caused by the Great East Japan Earthquake in the fishery industry

Item	Extent of damage	Progress (%)					Future initiatives
		0	20	40	60	80	
Landings	Landings at major fish markets in Iwate, Miyagi, and Fukushima Prefectures in March 2012 in comparison with March 2010	78% of landing volume (17,000 tons) Iwate: 65% (8,700 tons) Miyagi: 84% (8,700 tons) Fukushima: 0% (0 tons)					[Iwate Prefecture] Kuji, Miyako, Kamaishi, Ofunato [Miyagi Prefecture] Kesenuma, Onagawa, Ishinomaki, Shiogama [Fukushima Prefecture] Onahama (No landing in March 2012) Landings are expected to recover steadily in line with the resumption of fishing.
		84% of landing value (2.2 billion yen) Iwate: 72% (580 million yen) Miyagi: 93% (1.67 billion yen) Fukushima: 0% (0 yen)					
Fishing ports	319 ports were damaged	97% (Fish landings are now possible at 311 fishing ports (parts thereof at least)) Iwate: 100% (108 ports) Miyagi: 96% (137 ports) Fukushima: 70% (7 ports)					Target: by the end of FY 2012 Complete reconstruction of landing piers in 40% of disaster-stricken ports
	Fishing ports requiring emergency construction to remove debris from sea routes and harbors (232)	100% (Debris has been completely removed from 232 fishing ports) Iwate: 100% (88 ports) Miyagi: 100% (106 ports) Fukushima: 100% (7 ports)					Target: by the end of FY2013 Completion of reconstruction in all core ports (for some heavily damaged fishing ports and other fishing ports: by the end of FY 2015)
Fishing vessels	Nearly 29,000 vessels were damaged	70% (8,411 vessels have been restored) Iwate: 3,696 vessels Miyagi: 2,886 vessels Fukushima: 189 vessels					Target: by the end of FY2012 Recovery of 90% of 12,000 vessels, including those whose owners have restored with insurance payouts Target: by the end of FY2013 Restoration of at least 12,000 vessels
Aquaculture facilities	Wakame aquaculture facilities in Iwate Prefecture (Number of facilities before the disaster: 12,000)	About 50% (Iwate/wakame) (Rebuilt aquaculture facilities)					Target: by the end of FY2012 Construction of aquaculture facilities by all owners who wish to resume operations.
	Coho salmon aquaculture facilities in Miyagi Prefecture (Number of facilities before the disaster: 300)	About 70% (Miyagi/coho salmon) (Rebuilt aquaculture facilities)					
	Wakame aquaculture facilities in Miyagi Prefecture (Number of facilities before the disaster: 24,000)	About 60% (Miyagi/wakame) (Rebuilt aquaculture facilities)					
	Nori aquaculture facilities in Miyagi Prefecture (Number of facilities before the disaster: 51,000)	About 40% (Miyagi/nori) (Rebuilt aquaculture facilities)					
Processing and distribution facilities	Damaged local markets in the three affected prefectures: 34	65% (3 affected prefectures) (22 facilities have resumed operations) Iwate: 92% (12 facilities) Miyagi: 100% (9 facilities) Fukushima: 8% (1 facility)					All 22 of the local markets of Iwate and Miyagi Prefecture are scheduled to resume operations by the end of FY2012.
	Damaged fishery processing plants in the three affected prefectures: 831	50% (3 affected prefectures) (417 facilities have resumed operations) Iwate: 56% (125 facilities) Miyagi: 45% (223 facilities) Fukushima: 60% (69 facilities)					Target: by the end of FY2015 Full recovery of all facility operators who wish to resume operations.
Debris	Fishing grounds for set net fishery with operations affected by debris: 958	92% (Debris removal has been completed at 879 fishing grounds for fixed net fishery) Iwate: 97% (123 facilities) Miyagi: 91% (756 facilities) Fukushima: —					The removal of debris from the remaining fishing grounds for set net fishery and aquaculture grounds where work was not completed in FY2011 will be continued in FY2012 and completed by the end of FY2012. Some work may be conducted in FY2013 depending on the distribution of the debris.
	Aquaculture grounds affected by debris: 804	91% (Debris removal has been completed at 732 aquaculture grounds) Iwate: 94% (134 facilities) Miyagi: 91% (596 facilities) Fukushima: 33% (2 facilities)					

Section 3: The impact of the disaster on Japan's fishing industry

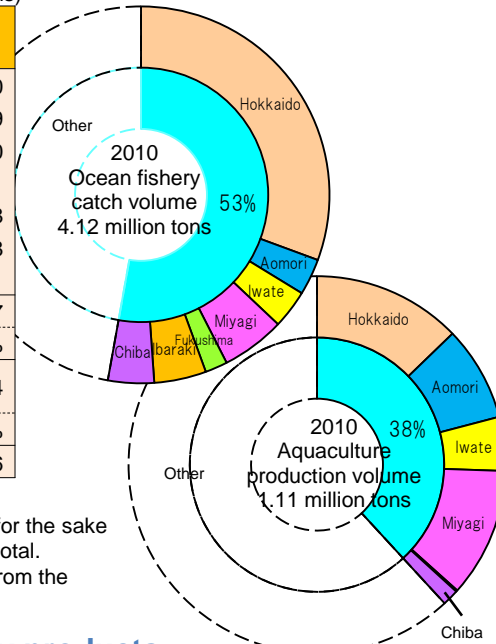
(1) The roles of the affected area's fishing industry

- Fishing and aquaculture from Hokkaido to Chiba Prefecture accounts for 50% of the nationwide total, making this region a major supplier of Japan's seafood products.
- The severely damaged region of the Pacific coast from Aomori Prefecture to Chiba Prefecture is home to several core ports including Hachinohe, Kamaishi, Ofunato, Kesenuma, Onagawa, Ishinomaki, Shiogama, and Choshi. Fishery-related industries, such as local fish markets, fishery processors, distributors, shipbuilders, and fishing gear manufacturers, cluster in the areas around these core ports, and the reciprocity among these industries contributes to regional development.

Share of Japan's fishery and aquaculture production accounted for by producers in the area from Hokkaido to Chiba Prefecture (2010)

(Unit: tons)

	Catch quantities	Aquaculture production quantities	Total
Hokkaido Prefecture	1,261,848	141,922	1,403,770
Aomori Prefecture	128,491	90,478	218,969
Iwate Prefecture	136,416	51,434	187,850
Miyagi Prefecture	224,588	123,323	347,911
Fukushima Prefecture	78,939	1,459	80,398
Ibaraki Prefecture	183,918	x	183,918
Chiba Prefecture	162,634	15,497	178,131
Total, 7 prefectures	2,176,834	424,113	2,600,947
Share of nationwide total	53%	38%	50%
Total, Aomori Prefecture Pacific Coast ~ Chiba Prefecture	897,073	191,821	1,088,894
Share of nationwide total	22%	17%	21%
Nationwide	4,121,038	1,111,338	5,232,376



Source: MAFF, *Annual Statistics on Fishery and Aquaculture Production*

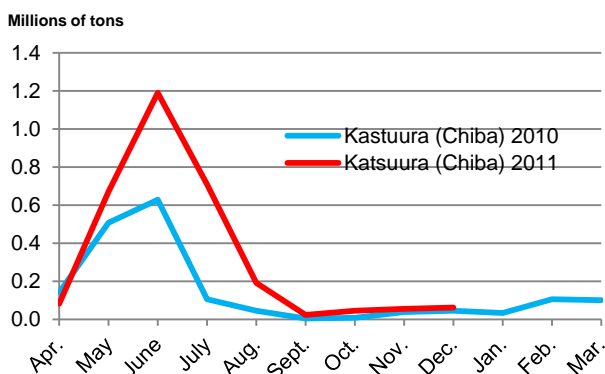
*1: The aquaculture production quantity for Ibaraki Prefecture has been concealed with an "x" for the sake of survey confidentiality. Since these figures are not public, they have not been included in the total.

*2: "Aomori Prefecture Pacific Coast" refers to the municipalities located in the area stretching from the border of Sai Village (Shimokita-gun) and Mutsu City south to the border with Iwate Prefecture.

(2) The impact on the domestic distribution of fish and fishery products

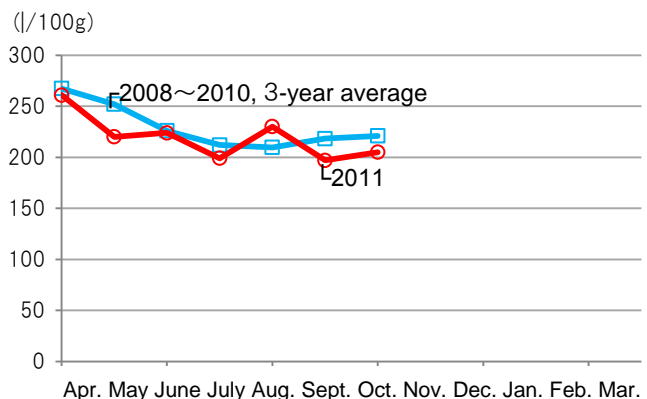
- The seafood and seaweed produced by the fisheries and aquaculture along the Sanriku coast, which account for a major share of the nationwide total, include commercially harvested wakame, abalone and sea urchin, and cultured wakame, oysters, scallops, sea squirts and coho salmon. The supply of these seafood and seaweed has fallen across Japan.
- The core ports in the Sanriku region have been impaired, and many offshore and far-seas fisheries have started to land their catches in ports outside of Sanriku. For example, skipjack pole and line vessels are landing catches in Choshi and Katsuura until the fish market at Kesenuma resumes operations. That being said, the national catch volume of skipjack in 2011 did not change much from those in the previous three years, so the retail prices in the 23 Wards of Tokyo and in Osaka city have not fluctuated much.

Katsuura (Chiba Prefecture) Catch Statistics



Source: Drafted by the Fisheries Agency based on Japan Fisheries Information Center (JAFIC) documents

Skipjack retail price (23 Wards of Tokyo)



Source: Ministry of Internal Affairs and Communications, *Retail Price Survey*

Note: Survey only covers the months of March through October.

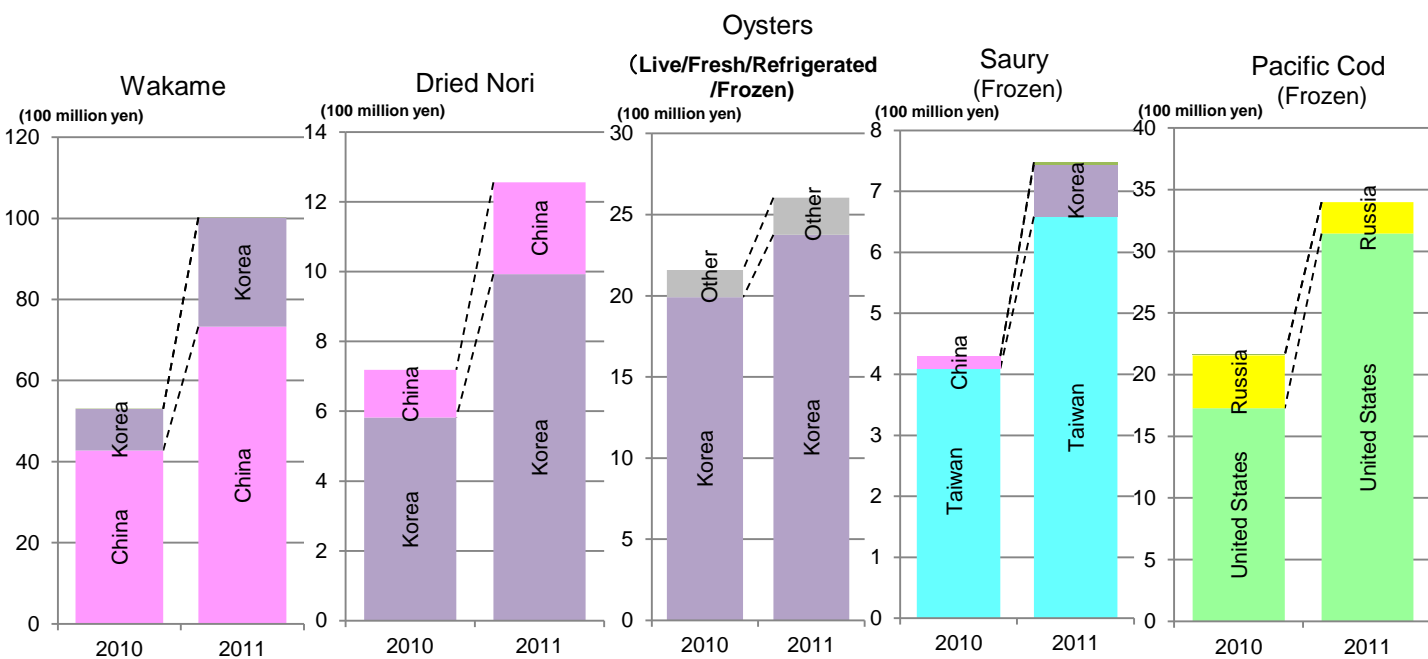
(3) The impact on the fishery processing industry

- The reduced supply of wakame and other items from Sanriku has affected balance of supply and demand of raw materials across Japan. Fishery processors had to procure raw materials from other parts of Japan or imports to satisfy their demand.
- Some disaster-stricken fishery processors have resumed operations by moving their plants to other regions, and others have contracted the manufacturing of their branded products to other companies in order to keep their brands on the market.

(4) Increased imports to offset decreased domestic supplies

- Imports increased for items whose production was cut (wakame, dried nori, oysters etc.) and items whose products in stock were damaged (saury, Pacific cod) by the Great East Japan Earthquake.

Import value and country/region of origin per item (year-on-year: April ~ December)



Source: Ministry of Finance, Trade Statistics

(5) The impact on the supply and demand of production materials in fisheries and aquaculture

- Miyagi Prefecture's oyster growing areas, which provided aquaculture seeds to other growing areas around the country, were damaged. The volume of shipments of oyster seeds to other regions within and outside of Miyagi fell.
- During reconstruction, the demand for nets, ropes, and other production-related gear showed a significant increase, and deliveries were delayed.

○ Industry-University-Government Collaboration Project to Restore Oyster Aquaculture

An industry-university-government collaboration project to mass-produce Miyagi oysters with artificial insemination was launched to assist in the recovery of Miyagi Prefecture's oyster aquaculture. The Miyagi Prefecture Fisheries Technology Institute, Yanmar Co., Ltd., Tohoku University and the Fisheries Research Agency's Tohoku National Fishery Research Institute stood together to produce about 13 million Miyagi oyster seeds.

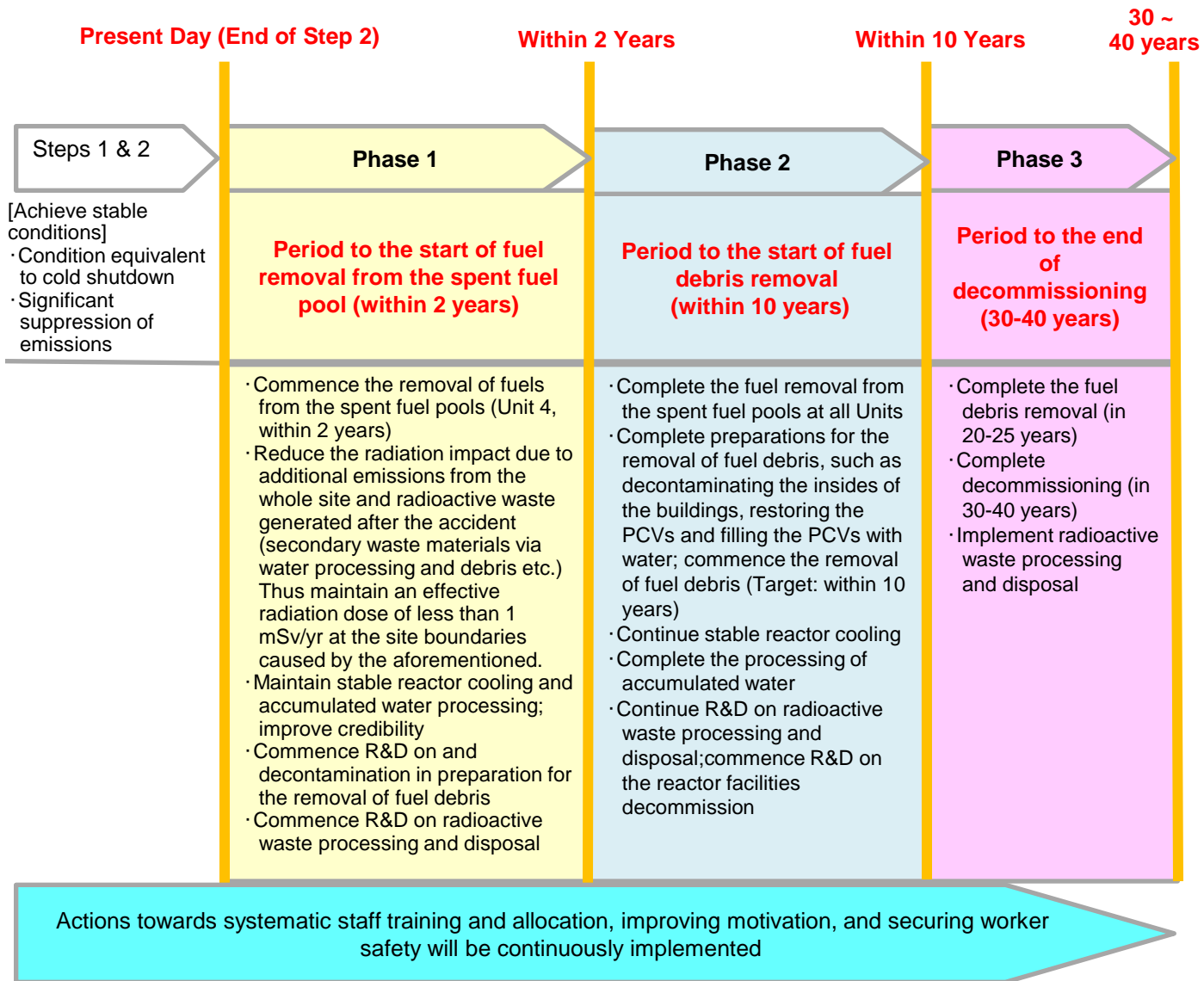


Section 4: Impact of the nuclear power plant accident on the fishing industry and its response

(1) Overview of the accident and efforts towards its containment

- The accident at Tokyo Electric Power's Fukushima Daiichi Nuclear Power Plant resulted in the discharge of contaminated water with high concentrations of radioactive material into the ocean and the dispersal of massive amounts of radioactive substances into the atmosphere.
- Efforts to contain this disaster will continue in accordance with the "Mid- to Long-Term Roadmap towards the Decommissioning of Fukushima Daiichi Nuclear Power Units 1-4, TEPCO."

Mid- to Long-Term Roadmap (Digest Version) (December 21st, 2011)



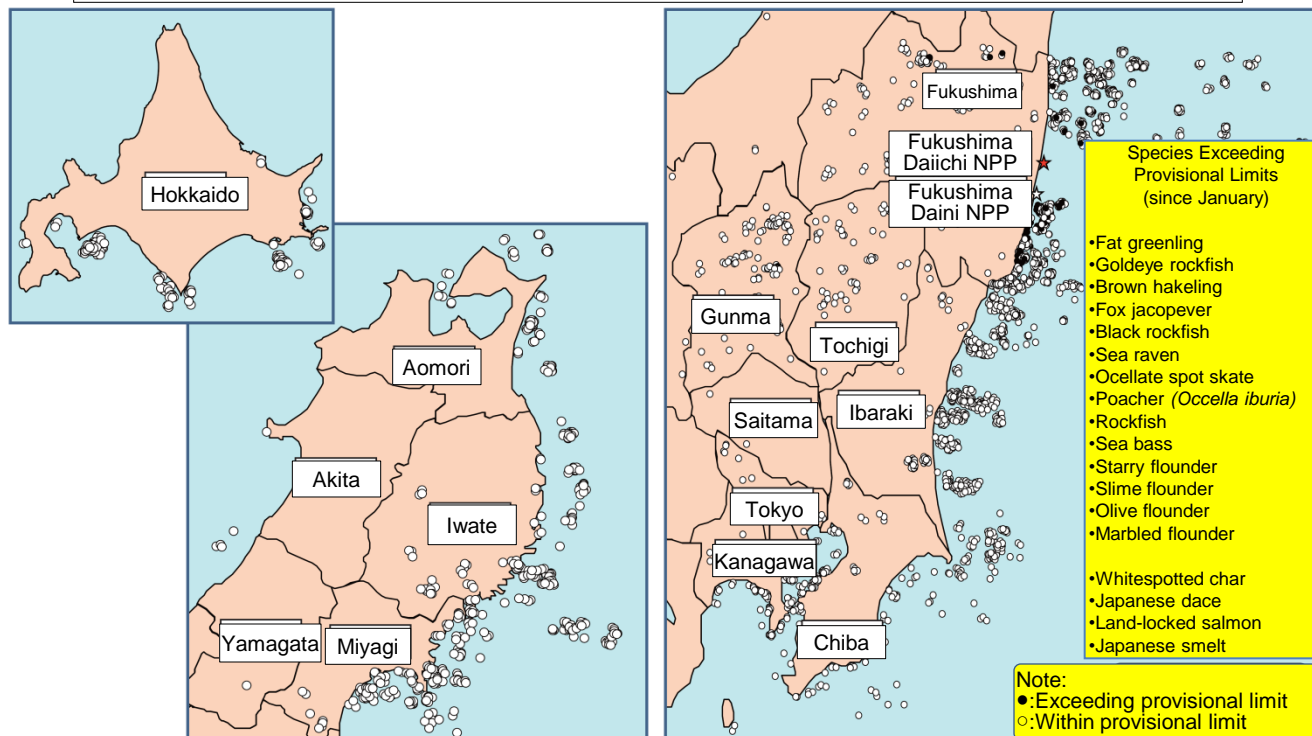
Source: Documents from the GOJ-TEPCO Mid- to Long-Term Countermeasure Meeting

(2) Status of radioactive substances in the oceans, rivers, lakes, and marshes

- The radioactive substances emitted into the atmosphere by the Fukushima Daiichi Nuclear Power Plant (NPP) accident have contaminated seawater and fresh water by various channels, and over time, they will gradually settle into the ocean floor and riverbeds.
- In accordance with the “Comprehensive Radiation Monitoring Plan,” the pertinent agencies will cooperate on monitoring radioactive substances in the the oceans, rivers, lakes, and marshes.
- The Fisheries Agency is working with the prefectures and fishery groups to monitor radioactive substances in fishery products in a well-planned manner.
Regular measurements (as a rule, once a week) are taken at key ports when major coastal species and migratory species are landed. Monitoring in the five prefectures of Fukushima, Miyagi, Ibaraki, Iwate, and Chiba has been improved in light of the new standards for radioactive substance levels which came into force in April 2012.

Monitoring of radioactive substances in fish and fishery products

Sites from which specimens were sampled between January and March 2012



A total of 8,567 specimens were examined between March 24, 2011 and March 31, 2012 under the provisional standards for radioactive substances (500 Becquerel/kg). Of these, 254 (about 3.0%) were found to exceed the standard limit.

(3) Ensuring the safety of fish and fishery products

- To ensure that fish and fishery products exceeding the new standards (enacted on April 1st, 2012) do not enter distribution, shipping and consumption limits have been put in place according to the Act on Special Measures Concerning Nuclear Emergency Preparedness. Based on the radioactive substance monitoring results, voluntary bans may be placed on catching the species in question at the request of the prefectures and the independent discretion of fishers' organizations.

New standards for radioactive substances in food products

Provisional limit on radioactive cesium		New standard on radioactive cesium	
Food category	Regulatory limit (Becquerel/kg)	Food category	Regulatory limit (Becquerel/kg)
Drinking water	200	Drinking water	10
Milk and dairy products	200	Milk	50
Vegetables	500	Baby food	50
Grain		General food	100
Meat, eggs, fish, other			

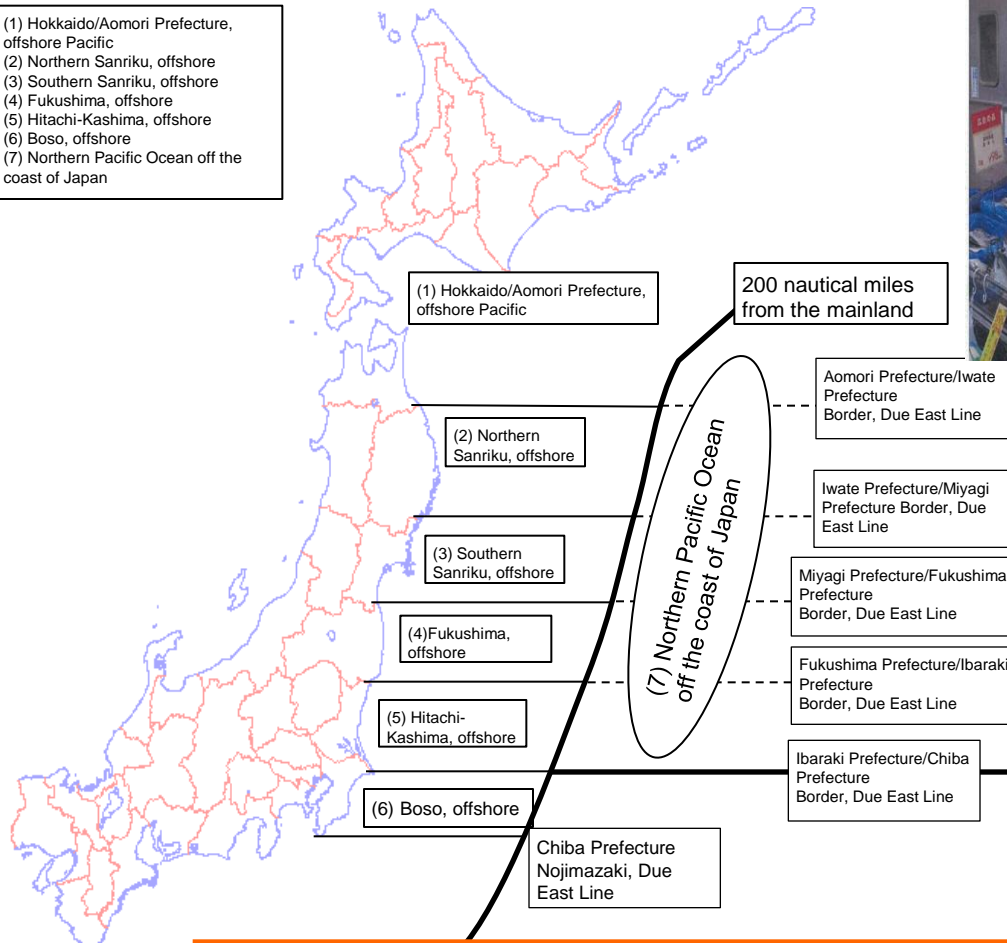
Source: Drafted by the Fisheries Agency based on Ministry of Health, Labor and Welfare documents

(4) Damage caused to fish and fishery products and responses

- Alleviating groundless rumors and other concerns from people inside and outside Japan about the safety of fish and fishery products is an urgent issue in the recovery of the fishing industry from the Great East Japan Earthquake. The Fisheries Agency provides consumers with accurate and easy-to-understand information about the levels of radioactive substances in fish and fishery products.
- Given consumers' increased interest in where raw fish are harvested, the Fisheries Agency has encouraged clearer identification of harvested areas where fish are caught in the Pacific Ocean off the coast of East Japan.
- To respond to other countries' tightened regulations on Japanese foods including fish and fishery products, the Government provides information on its radioactive substance survey results and safety measures to foreign audiences.

Indication of harvested areas for fresh fish (Migratory fish)

- (1) Hokkaido/Aomori Prefecture, offshore Pacific
- (2) Northern Sanriku, offshore
- (3) Southern Sanriku, offshore
- (4) Fukushima, offshore
- (5) Hitachi-Kashima, offshore
- (6) Boso, offshore
- (7) Northern Pacific Ocean off the coast of Japan



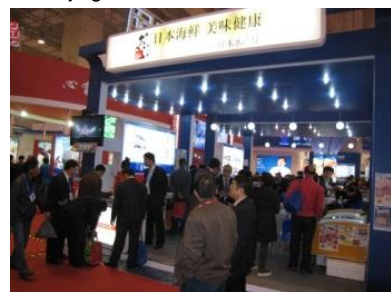
Example of labels in a store

Efforts toward Resuming Fish and Fishery Product Exports to China

To resume exports of locally-produced salmon and scallops, Hokkaido established a system to expedite inspections of fish and fishery products for export. The Hokkaido Federation of Fishery Cooperatives held a meeting with Chinese officials in Dalian in March 2012.



Nagasaki Uoichi resumed exports of fresh fish to Shanghai on May 31st, 2011 (The first case of resumption of food exports to China after the nuclear power plant accident). Nagasaki Prefecture provided comprehensive support in resuming exports, including establishing a system to inspect for radioactive substances. In February 2012, Nagasaki Prefecture Fishery Product Promotion Fairs were held in Shanghai and Beijing.



Section 5: The future of Japan's fishing industry in light of recovery and reconstruction efforts

A variety of initiatives undertaken to rebuild the disaster-stricken fishing industry have served as invaluable insights toward overcoming the myriad issues that Japan's fishing industry faces as a whole. The Government, based on its recognition of the following issues, will continue to provide its full support to fishery reconstruction efforts. It is also vital that the lessons learned from this disaster be put to use in future fishery policy.

(1) Strengthening ties between consumers and fishers

- The people of Japan have expressed a strong interest in the fishing industry, which is the backbone of the economy in the affected areas, and the fishing communities active in the industry. Efforts to build and maintain visible connections between the people and fishers are powerful tools for reinvigorating not only the affected areas, but Japan's fishing industry as a whole.

Rebuilding oyster aquaculture subscription services



The Miyako Bay Oyster Aquaculture Cooperative began a subscription oyster business selling oysters directly to consumers. The photograph shows a reception with the consumers.

Connecting affected fishers and consumers via online mail-order sales



Just one month after the disaster, Sanriku Toretate Ichiba had resumed its business of posting photographs of fresh catches from local fishing vessels on its homepage and selling them directly to consumers. The photograph shows staff filming a fish catch.

(2) Adopting new operating methods and promoting initiatives to supply high quality fish and fishery products

- As stakeholders work toward reconstruction, initiatives to set up joint operations and transition to new, highly profitable systems, such as sharing various facilities and establishing fishery production cooperatives, have emerged.
- To rebuild the fishing industry in the affected areas, it is necessary to accelerate proactive initiatives that respond to consumers' increased focus on safety and reliability by improving sanitation control in distribution and processing facilities, rather than just restoring things to the status quo.
- It is important to provide continuing support to these initiatives and to steadily spread them beyond the affected areas.

Establishing companies in which aquaculturists handle everything from production to processing and sales



Led by a group of aquaculturists, Oh! Guts! LLC—a company handling every step from processing to sales—was established in August 2011.

Expanding the fishery processing industry by utilizing local fishery resources



Abecho Shoten Co., Ltd. has helped to invigorate the local fishing industry by using high quality, locally-caught seafood for processed goods in order to create value-added products and by connecting producers directly to consumers.

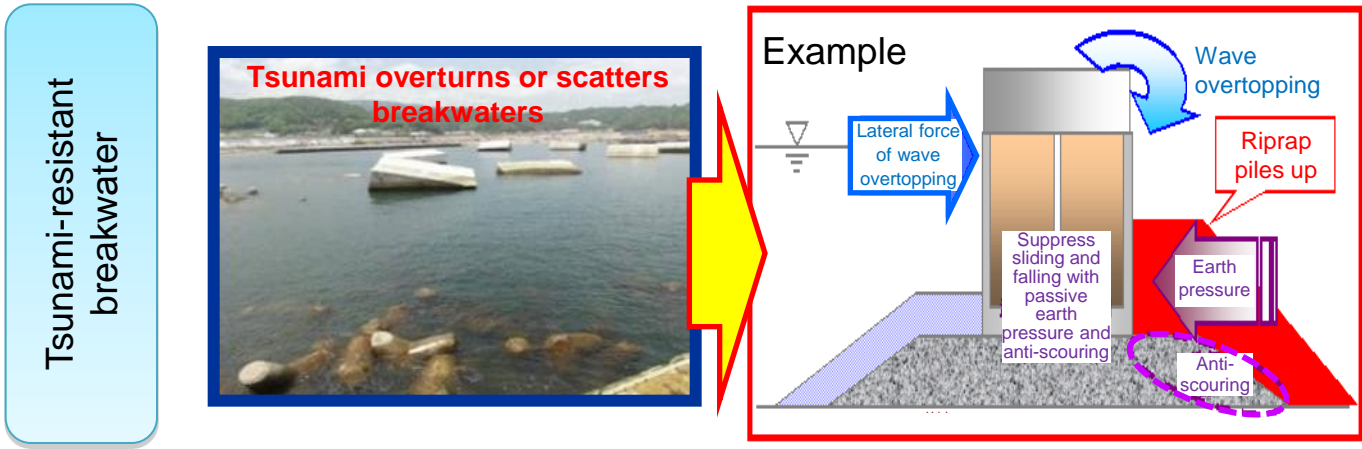


Ono Foods Co., Ltd. has helped resuscitate the local community by resuming its operations and expanding its business to maximize the value of locally-caught, in-season fish. The photograph shows a direct-to-consumer sales event held before the disaster.

(3) Strengthening disaster prevention and promoting disaster mitigation in fishing communities

- As part of the reconstruction effort, initiatives are underway to: (1) reinforce fishing ports and coastal protection facilities so that they can function effectively even in the event of a tsunami; and (2) promote the earthquake proofing of local markets' landing piers so that landings can be resumed as soon as possible after a disaster. Efforts to improve evacuation routes are also underway in order to secure the safety of local residents, workers, and visitors in the event of a disaster.
- The development of "disaster-resistant fishing communities" outside of the affected areas is also being promoted.

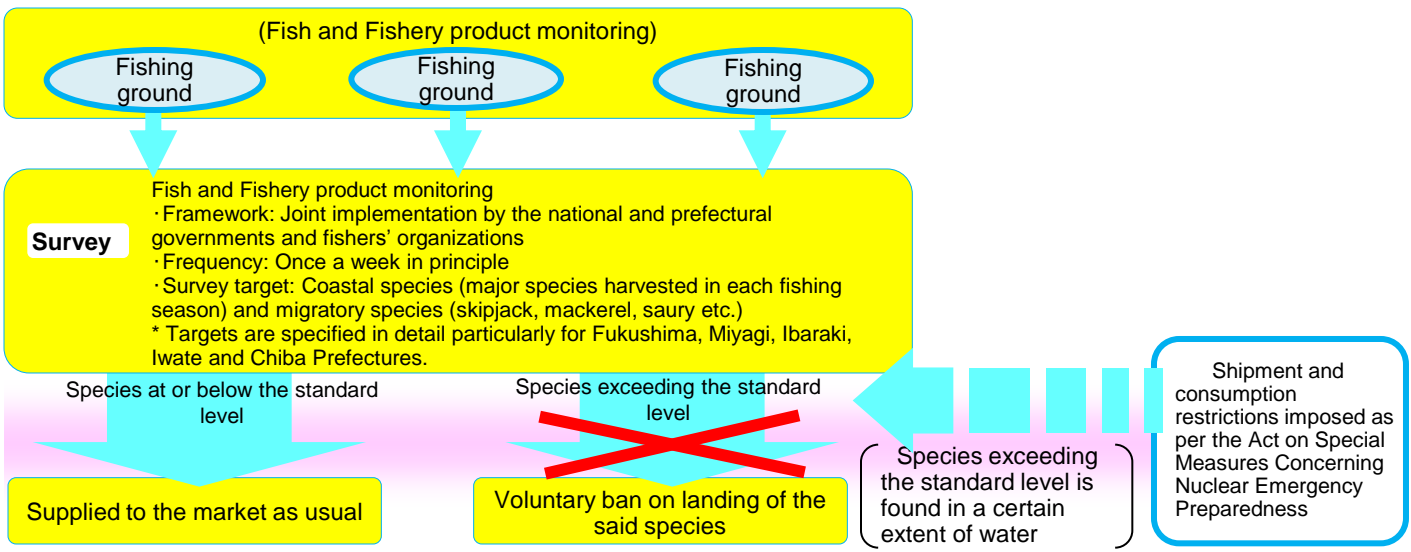
Example of earthquake/tsunami-resistant structures



(4) Ensuring the safety of fish and fishery products against radioactive substances and regaining the trust of consumers

- Ensuring the safety of fish and fishery products in the wake of the TEPCO Fukushima Daiichi nuclear power plant accident is a key issue that Japan's fishing industry must deal with over the long term.
- Monitoring for radioactive substances in major catches depending on the species, season, habitat, and migratory route has been and will be strengthened through cooperation among the national government, prefectures, and related organizations. Based on the radioactive substance monitoring results, voluntary bans may be placed on catching certain species at the request of the prefectures and the independent discretion of fishers' organizations, so as to prevent the shipment of fish and fishery products containing radioactive substances in excess of the standard level.
- Shipping and consumption limits have been put in place for products exceeding the standard level according to the Act on Special Measures Concerning Nuclear Emergency Preparedness.
- It is important to promote accurate labeling, actively release monitoring results, and work to alleviate consumer concerns.
- To respond to countries and regions who continue to maintain stringent regulations on Japanese foods including fish and fishery products in the wake of the TEPCO Fukushima Daiichi nuclear power plant accident, the Government needs to take every opportunity to persuade them to act objectively based on scientific evidence.

Ban on distribution of fish and fishery products found to exceed the standard level by the fishery product monitoring



* This is an illustration of the basic policy. Some fishers' groups may make their own decisions about the radiation levels subject to voluntary bans.

Introduction: The New Basic Plan for Fisheries

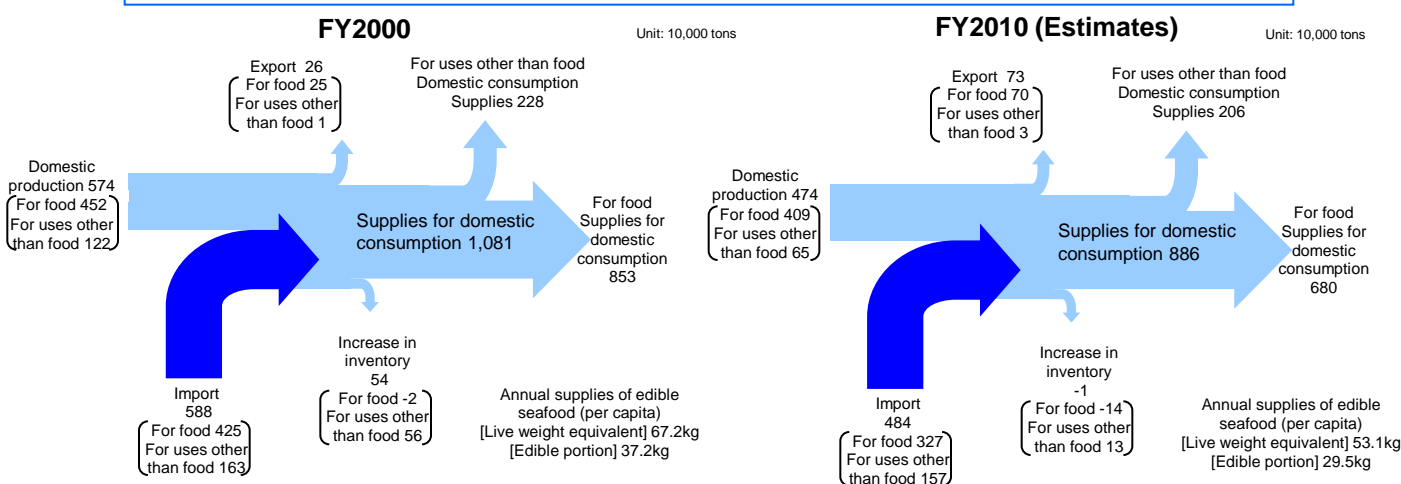
- The New Basic Plan for Fisheries formulated in March 2012 defines recovery from the Great East Japan Earthquake as its top priority. It also calls for: (a) the full utilization of fishery resources primarily from the waters surrounding Japan, positioning resource management/fishery income compensation measures as a core policy; (b) the promotion of measures, including the creation of sixth industries and the improvement of sanitation control, in order to enhance processing, distribution, and consumption; and (c) the development of safe fishing communities.
- The Plan sets the self-sufficiency rate of fish and fishery products for human consumption in 2022 at 70%.

Section 1: Trends in fish and fishery product consumption, supply, and demand

(1) Trends in fish and fishery product supply and demand

- The supply of fish and fishery product for domestic human consumption in FY2010 fell 20% compared to FY2000.

Changes in the structure of production and consumption of fish and fishery products



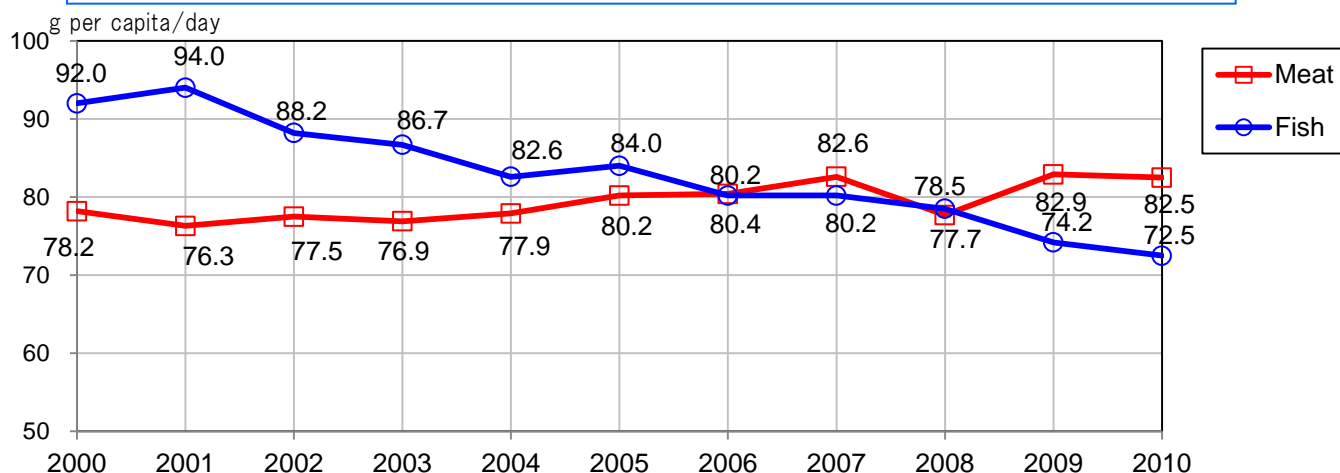
Source: MAFF, *Food Supply and Demand* (FY2000); FY2010 Fisheries Agency survey

(2) Trends in fish and fishery product consumption

(Expanding gap in the levels of meat and fish and fishery product consumption)

- Daily fish and fishery product consumption per capita continues to decline. In 2006, meat consumption surpassed fish consumption for the first time. The gap between meat and fish consumption grew in 2009 and 2010.

Daily levels of meat and fish consumption per capita

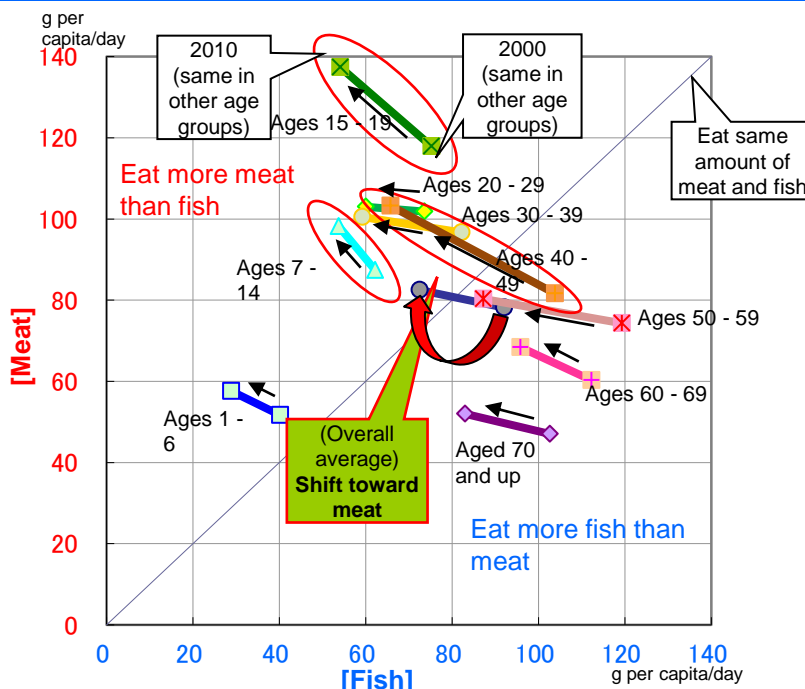


Source: Ministry of Health, Labor and Welfare, *National Nutrition Survey* (2000-2002); *National Health and Nutrition Examination Survey* (2003-2010)

(Trends in meat and fish consumption by age group)

- Looking at the daily levels of meat and fish consumption per capita by age group, fish consumption has declined and meat consumption has increased in all groups between 2000 and 2010. This trend is particularly noticeable in the 7 ~ 14, 15 ~ 19 and 40 ~ 49 age groups.

Changes in fish and meat consumption levels by age group



Source: Ministry of Health, Labor and Welfare, *National Nutrition Survey (2000)*; *National Health and Nutrition Examination Survey (2010)*

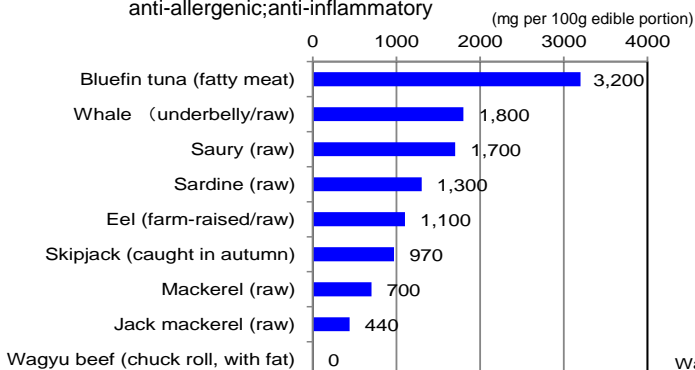
(Fish and fishery products sustain healthy dietary habits of Japanese people; measures to boost fish consumption are needed)

- Fish and Fishery products contain various functional ingredients such as DHA and EPA. They are also rich in protein and low in calories.
- Fish and Fishery products are an important part of a healthy diet for Japanese people. It is important for producers, processors, distributors, retailers, and restaurateurs to work cooperatively on initiatives to expand their consumption.

Functional ingredients in fish and fishery products

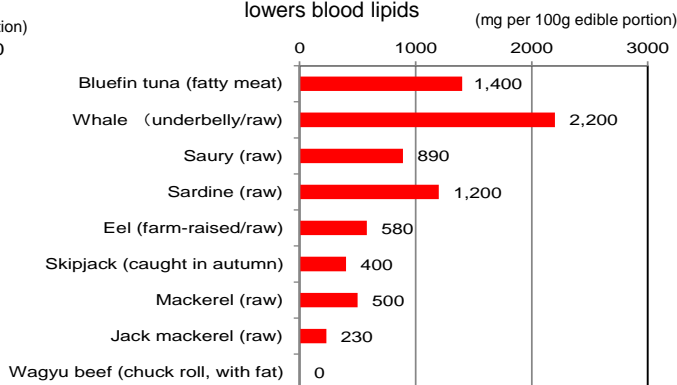
DHA (Docosahexaenoic acid)

Develops and maintains brain and nerve tissue functions;
anti-allergenic; anti-inflammatory



EPA (Eicosapentaenoic acid)

Prevents thrombosis and vasoconstriction;
lowers blood lipids



Source: Standard Tables of Food Composition in Japan, 2010

Comparison of Nutrient Composition (per 100g)

	Energy	Water	Protein	Lipids	Minerals		Vitamins			Fatty acids		
					Calcium	Iron	Vitamin D	Vitamin K	Vitamin B1	Folic acid	EPA	DHA
(Unit)	kcal	g	g	g	mg	mg	µg	µg	mg	µg	mg	mg
Chum salmon, raw	133	72.3	22.3	4.1	14	0.5	32	0	0.15	20	210	400
Pork (large) / Shoulder loin / with fat; raw	253	62.6	17.1	19.2	4	0.6	0.3	2	0.63	2	0	11

Source: Standard Tables of Food Composition in Japan, 2010

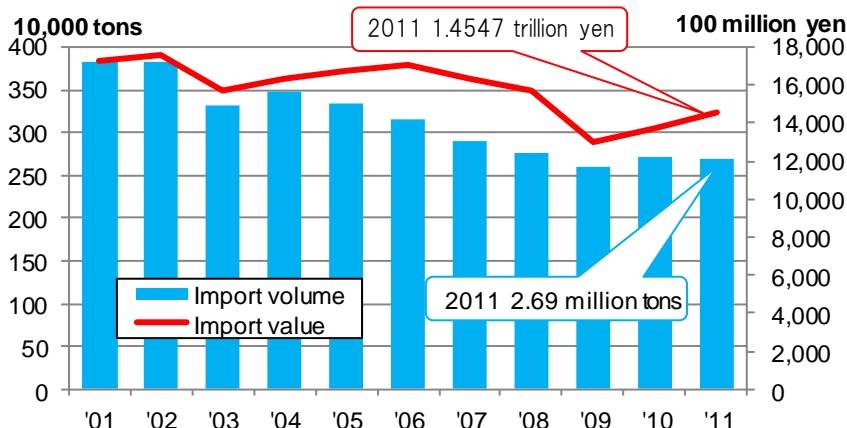
Note: The types of fresh fish and fresh meat purchased most often (salmon and pork) according to the Ministry of Internal Affairs and Communications' *Household Budget Survey (FY2011)* were selected as examples of commonly purchased foods

(3) Trends in fish and fishery product imports and exports

(Trends in Japan's fish and fishery product imports)

- Imports of some fish and fishery products rose in 2011 to offset the decreased domestic supply due to the Great East Japan Earthquake. However, the overall volume (2.69 million tons) was about the same as the previous year's level. Import value rose 6% to 1.4547 trillion yen.

Trends in fish and fishery product import volume and value

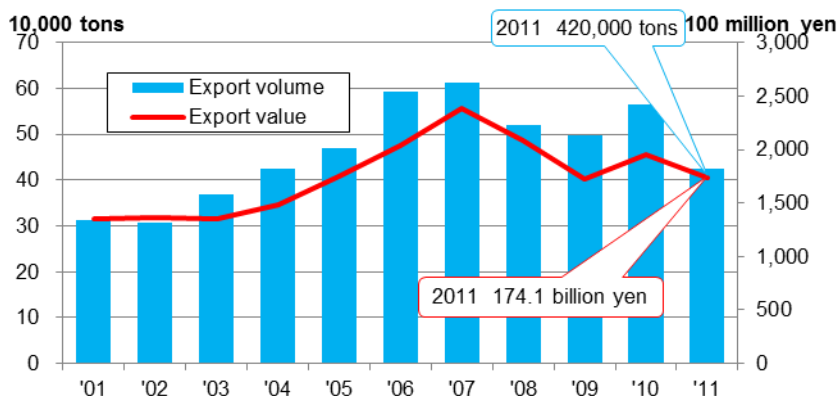


Source: Ministry of Finance, Trade Statistics

(Trends in Japan's fish and fishery product exports)

- Due to export restrictions stemming from the nuclear power plant accident and the high-valued yen, fish and fishery product exports in 2011 fell 25% from the previous year to 420,000 tons, and export value fell 11% from the previous year to 174.1 billion yen.

Trends in fish and fishery product export volume and value

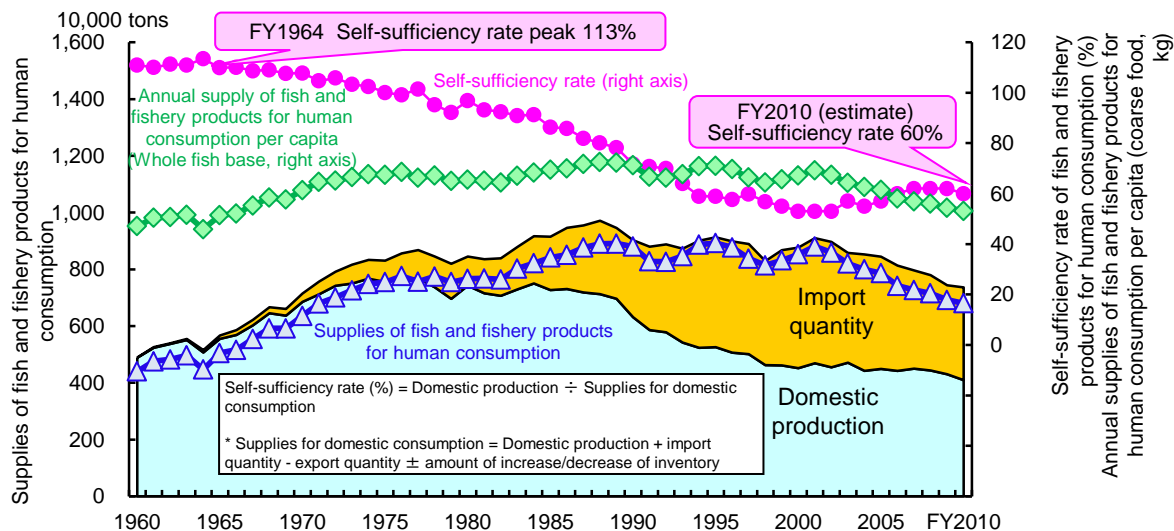


Source: Ministry of Finance, Trade Statistics

(4) Japan's self-sufficiency rate of fish and fishery products for human consumption

- The self-sufficiency rate of fish and fishery products for human consumption has remained relatively unchanged in recent years, with the rate in FY2010 standing at 60%.

Self-sufficiency rates of fish and fishery products for human consumption



Source: MAFF, Food Supply and Demand; FY2010 Fisheries Agency survey

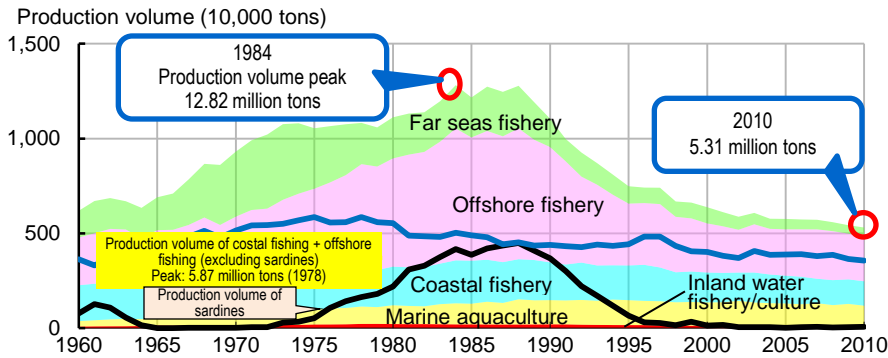
Section 2: Trends in Japan's fishing industry

(1) Trends in fisheries and aquaculture

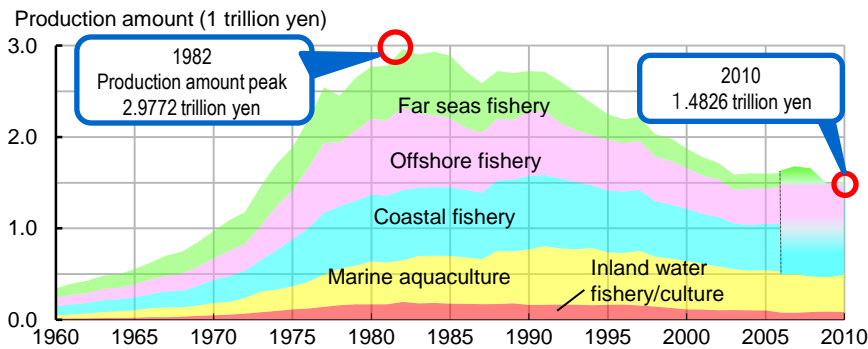
(Domestic fishery and aquaculture production)

- In 2010, domestic fishery and aquaculture production fell 2.2% from the previous year to 5.31 million tons. Production value increased 0.8% from the previous year to 1.4826 trillion yen in line with the increase in price of cultured red sea bream and oysters.

Fishery and aquaculture production volume and value



		2010 (1,000 tons)
Production volume	Total	5,312
	Marine	5,232
	Fishery	4,121
	Far seas fishery	480
	Offshore fishery	2,355
Coastal fishery	1,286	
Aquaculture	1,111	
Inland water	Inland water	79
	Fishery	40
	Aquaculture	39



		2010 (10 million yen)
Production amount	Total	14,826
	Marine	13,995
	Fishery	9,711
	Far seas fishery	...
	Offshore fishery	...
Coastal fishery	...	
Aquaculture	4,284	
Inland water	Inland water	830
	Fishery	228
	Aquaculture	602

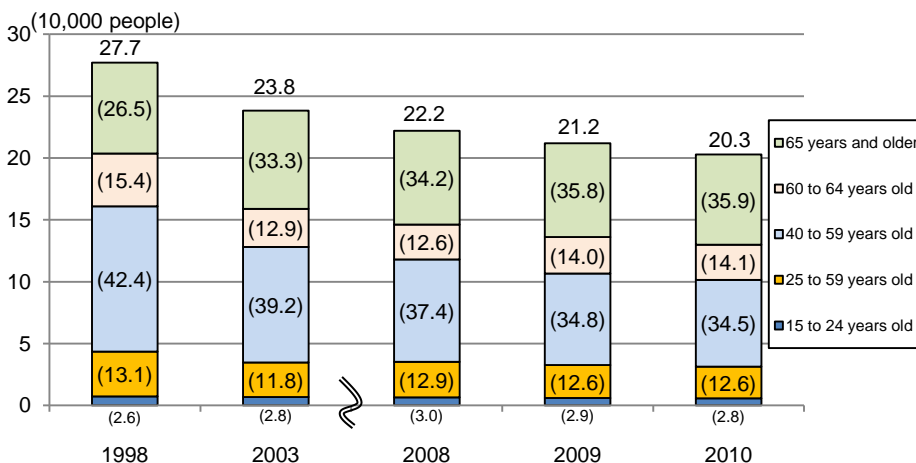
Source: MAFF, *Annual Statistics on Fishery and Aquaculture Production*

Note: From 2007 onwards, figures of the fishery and aquaculture production categories of "Far seas fishery," "Offshore fishery," and "Coastal fishery" are estimates.

(Trends in fishery workers and promotion of new recruits)

- There were 203 thousand fishery workers in 2010 (-4.2% year-on-year), 35.9% of whom were aged 65 or older (+0.1% year-on-year).
- 1,867 new recruits were added in 2010. In order to secure new recruits and successors, the Government provides long-term training and other support both on-site and at fishery employment consultation events.

Trends in numbers of fishery workers



Source: MAFF, *Census of Fisheries* (through FY2008) and *Report on the Survey of Fishing Industry Employment Trends* (FY2009 onwards)

*1: "Fishery workers" refer to persons aged 15 or older engaged in fishery operations at sea for at least 30 days in the past year.

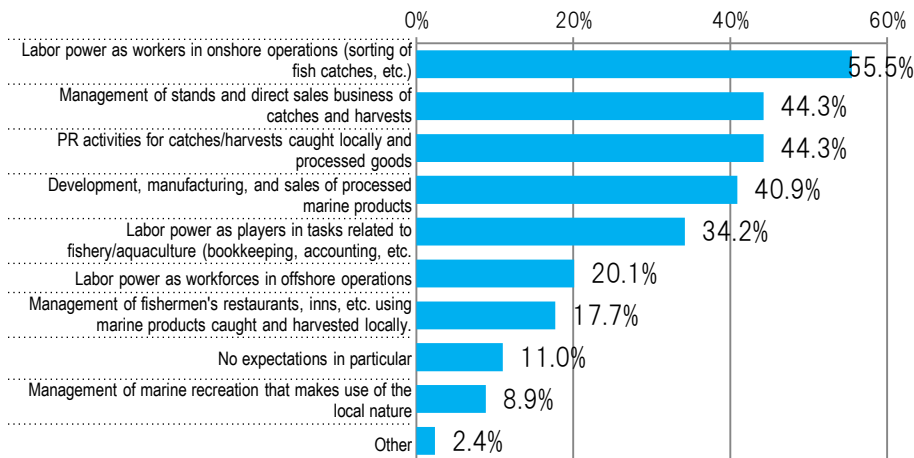
*2: The figures in parentheses are percentages of the total number of fishery workers.

*3: Figures for 2003 and 2008 are not consecutive.

Women's activities in the fishing industry and fishing communities

Women in fishing communities play particularly important roles in fishery-related operations on land and fishery processing plants. In order to revitalize fishery, aquaculture and fishing communities, women's initiatives which make use of their characteristics are hoped for in undertaking sixth industry in their fishing communities.

Women's activities hoped for the revitalization of fishing, aquaculture and fishing communities (based on multiple responses)



(Activities of fishery cooperative women's divisions)



Women process locally-caught amberstripe scad and flying fish for sale to schools on and off the island for use in school lunches (Hachiojima Fishery Cooperative Women's Division)

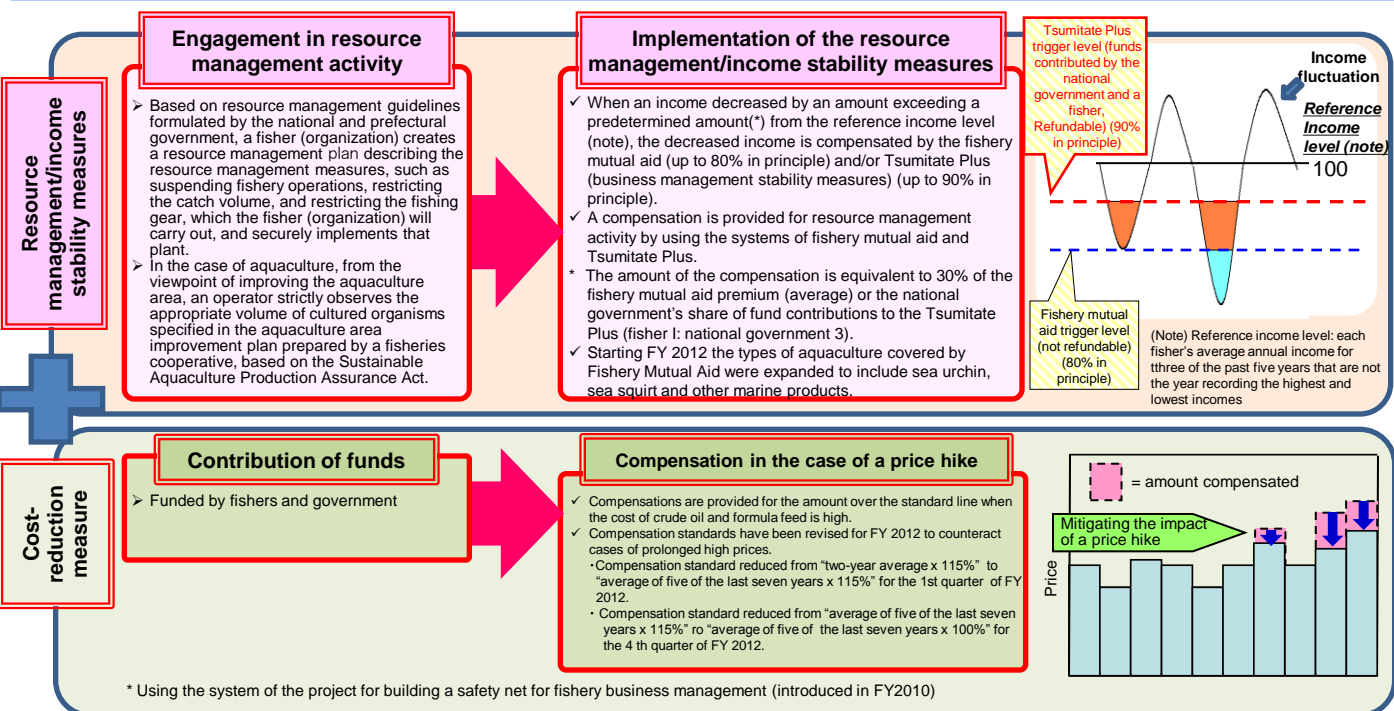
Source: MAFF, *Opinion Survey Concerning Food, Agriculture, Farming Communities, Fisheries and Fishery Products* (conducted January and February 2012)
 Note: This survey targeted 500 MAFF Information Monitors who were persons engaged in fishery and aquaculture. Response rate: 83.6% (418 respondents).

(2) Development related to business management of fisheries and aquaculture

(Comprehensive measures for compensation of the fishers' loss of incomes)

- To ensure a steady supply of fishery products to the people, it is important to sustain fishing industry operators that effectively use Japan's rich fishery resources while properly managing them.
- For this reason, starting in April 2011, the Government implemented and is steadily promoting its "Resource Management/Fishery Income Compensation Measures," a comprehensive income compensation system combining: (a) resource management and income stabilization measures (utilizing Fishery Mutual Aid); and (b) cost reduction measures to mitigate the rising prices of fuel and formula feed (Project to Create a Safety Net for Fishing Businesses).
- Given the upward trend of fuel prices, the Government eased the condition for application of the cost reduction measures (starting FY2012) to improve assistance in the event that fuel and formula feed prices remain high for the long term.

Outline of the resource management/fishery income compensation measures



* Using the system of the project for building a safety net for fishery business management (introduced in FY2010)

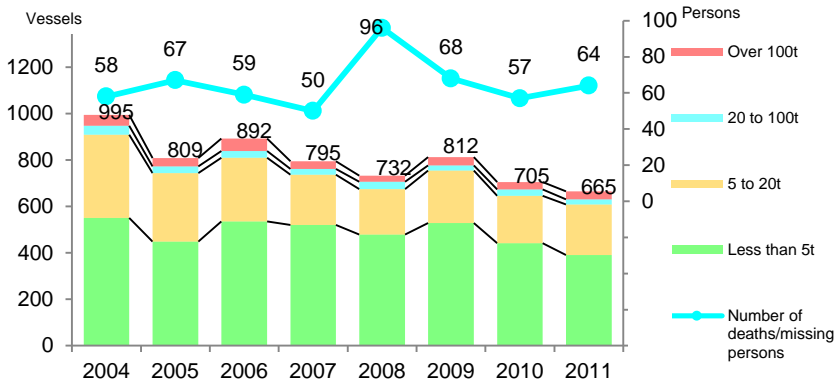
(3) Ensuring the safety of fishing operations

(Marine accident statistics)

- There were 665 fishing vessels involved in marine accidents in 2011. The total number of deceased and missing persons was 64.
- In 2011, 61 persons lost their lives or went missing by falling overboard in instances that were not marine accidents.

Number of fishing vessels involved in marine accidents and number of dead and missing persons

Source: Japan Coast Guard
 Note: Excludes marine accidents due to heavy snowfall in the Sanin region (2 vessels in 2010; 215 vessels in 2011)

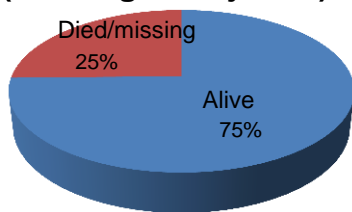


(Safety measures in fisheries)

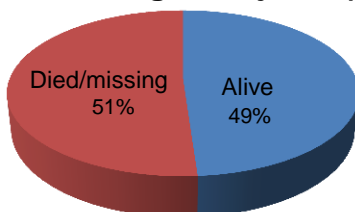
- In an effort to enhance safety in fishing operation, the Government is promoting the development of fishing vessel restructuring technologies (safety improvement measures) by a private organization. Support is also being provided for efforts to promote the usage of life jackets given their effectiveness in increasing the survival rates of persons who fall overboard.

Survival rate of persons who fall overboard from fishing vessels (2011)

(Wearing a life jacket)



(Not wearing a life jacket)



Source: Japan Coast Guard

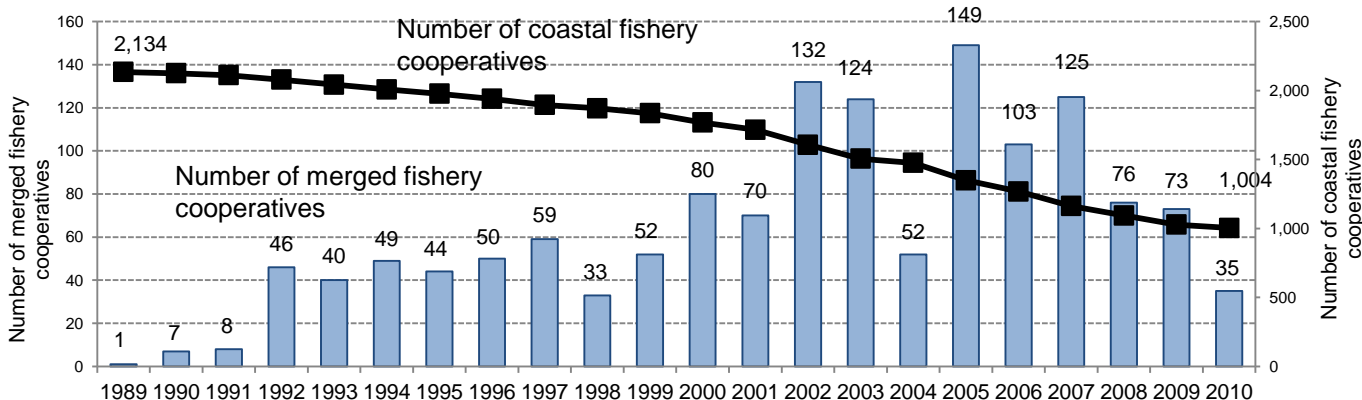


Campaign on life jacket usage promotion (workshop in session)

(4) Trends in fishery cooperatives

- It will continue to be important for fishery cooperatives to respond to the various needs of fishers and to strengthen organizational structures and improve business management efficiency to that end. Given this, the Prefectural governments are promoting the merger of fishery cooperatives.
- In FY2008, the Government established the Fishery Cooperative Management Reform Support Fund, which allows for the borrowing of funds to offset losses, to provide support to fishery cooperatives engaged in the development and implementation of management improvement plans, and since then has offered reduced interest rates among other measures.

Fishery cooperatives in coastal regions



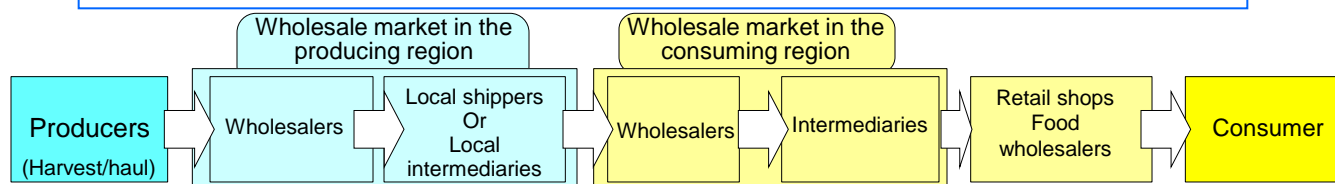
Source: Fisheries Agency, Annual Report on Fishery Cooperatives

5) Trends in fish and fishery product distribution and processing

(The status of fish and fishery product distribution)

- Most fishery products are sorted and loaded in wholesale fishery markets near the ports where they were landed, after which they are shipped to wholesale markets at the point of consumption. Products typically reach consumers after passing through two wholesale markets.
- Most wholesale fishery markets have small trade volumes and poor pricing power. Therefore, it is crucial to merge markets and concentrate facilities in order to enhance market function, invigorate trade and increase the income of fishers.

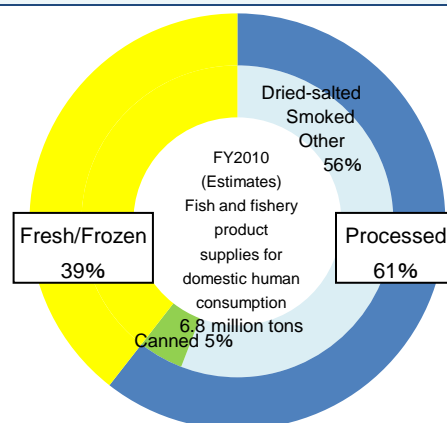
General distribution channel for fish and fishery products



(Current status of the fishery processing industry)

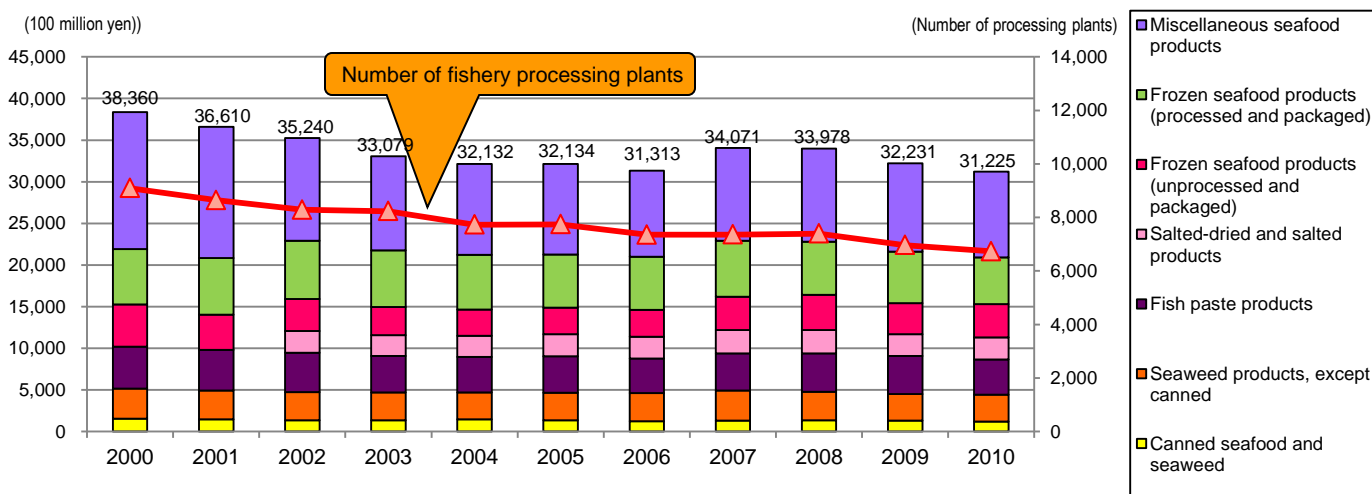
- The value of shipments in the fishery processing industry in 2010 was 3.1225 trillion yen. This accounts for 12.9% of the total value of shipments in the food manufacturing industry.
- 61% of fish and fishery products for domestic human consumption is shipped to processors. The fishery processing industry holds an important position in the domestic fish and fishery product supply chain.
- The fishery processing industry is an invaluable core industry for fishers as well as fishing communities. 90% of the fishery processing plants are located in seaside municipalities.

Fish and fishery products for domestic human consumption by type



Source: Fisheries Agency survey

Number of fishery processing plants and value of shipments



Source: Ministry of Economy, Trade and Industry, *Industry Statistics*

*1: "Salted-dried and salted product manufacturing" is a category that was added in 2002. Before 2002, it was included in "Miscellaneous seafood product manufacturing".

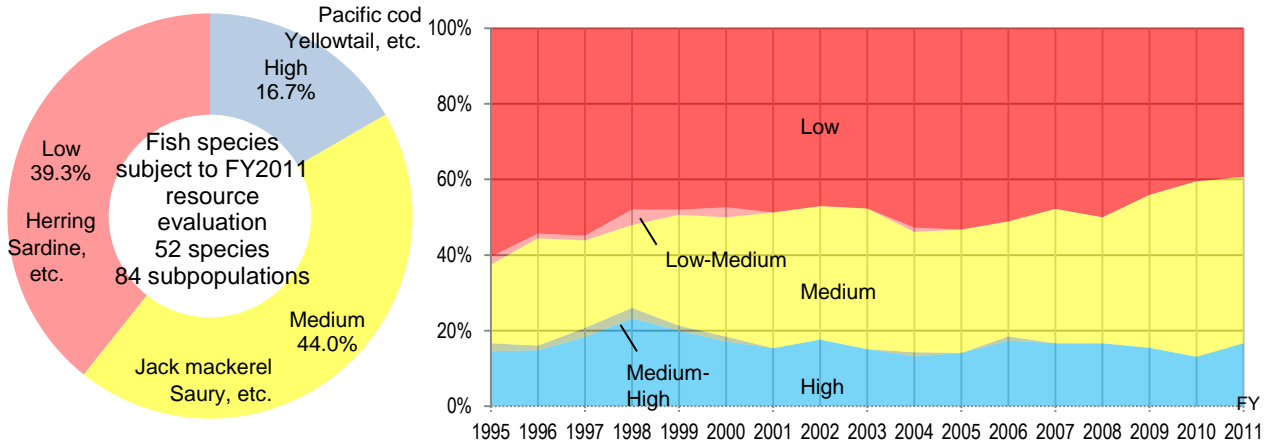
*2: Neither the number of plants nor the value of shipments include enterprises with less than three employees.

Section 3: Trends in Japan's fishery resources and fishing grounds

(1) Fishery resources in waters surrounding Japan

- According to the FY2011 assessment for the state of fishery resources in waters surrounding Japan, approximately 40% of the evaluated stocks (33 stocks out of 84 stocks [52 species]) were at the low level.
- In recent years, the percentage of low level stocks has fallen, while that for medium level stocks has risen.

State and level of fishery resources in waters surrounding Japan (FY2011)



Source: Fisheries Agency and the National Fishery Research Institute, *Assessment of Fishery Resources in Japan's Surrounding Waters*

○ Signs of recovery in Japanese sardines

Japanese sardine is known for long term, repeated large fluctuations in their stock size. The Japanese sardine catch volume reached 4.5 million tons in 1988, but fell steadily thereafter, hitting a bottom of approximately 28,000 tons in 2005.

There are two stocks of Japanese sardines in waters surrounding Japan, the Pacific stock and the Tsushima Warm Current stock. The Fishery Research Agency's latest assessment indicates that both stocks are increasing. At its peak (1987), the harvest from the Pacific stock was 3 million tons, and this same stock has recently shown a clear increase in the number of individuals born in 2010.

To ensure the full-scale recovery of the Japanese sardine, it is important to take appropriate measures, especially securing a sufficient quantity of spawning stocks by avoiding overfishing of the growing population.



Japanese sardine
(Scientific name: *Sardinops melanostictus*)

(2) Implementation of resource management frameworks

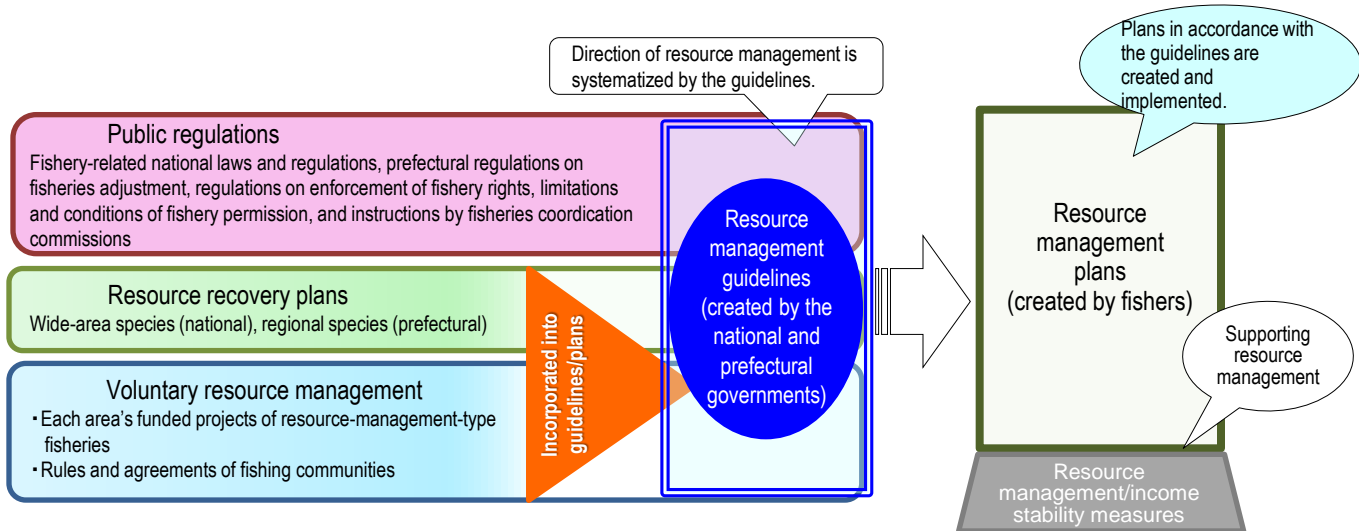
(Public regulations and voluntary resource management by fishers)

- Around Japan, there is a diverse array of fishing practices for each target fish species. This is why the Government imposes various public regulations based on the characteristics of each species and type of fishing practice, such as fishing rights awarded by prefectural governors, national and prefectural fishing permits, and the Total Allowable Catch (TAC) system, as part of its fishery resources management policy.
- In addition to public regulation, Japan's fishery resources management includes voluntary resource management measures, such as temporary fishing bans and fish length restrictions, implemented by fishers.

(New resource management system: Resource Management Policies / Resource Management Plans)

- In 2011, a new system was introduced in which fishery organizations drafted Resource Management Plans based on the Resource Management Policies formulated at the national and prefectural levels.
- This new systems covers coastal, offshore, and far seas fishing operations, and by March 31, 2012, more than 1,400 Resource Management Plans had been drawn up and implemented.
- Under this new resource management system, the Government promotes nationwide resource management together with agencies, research institutions, and fishers.

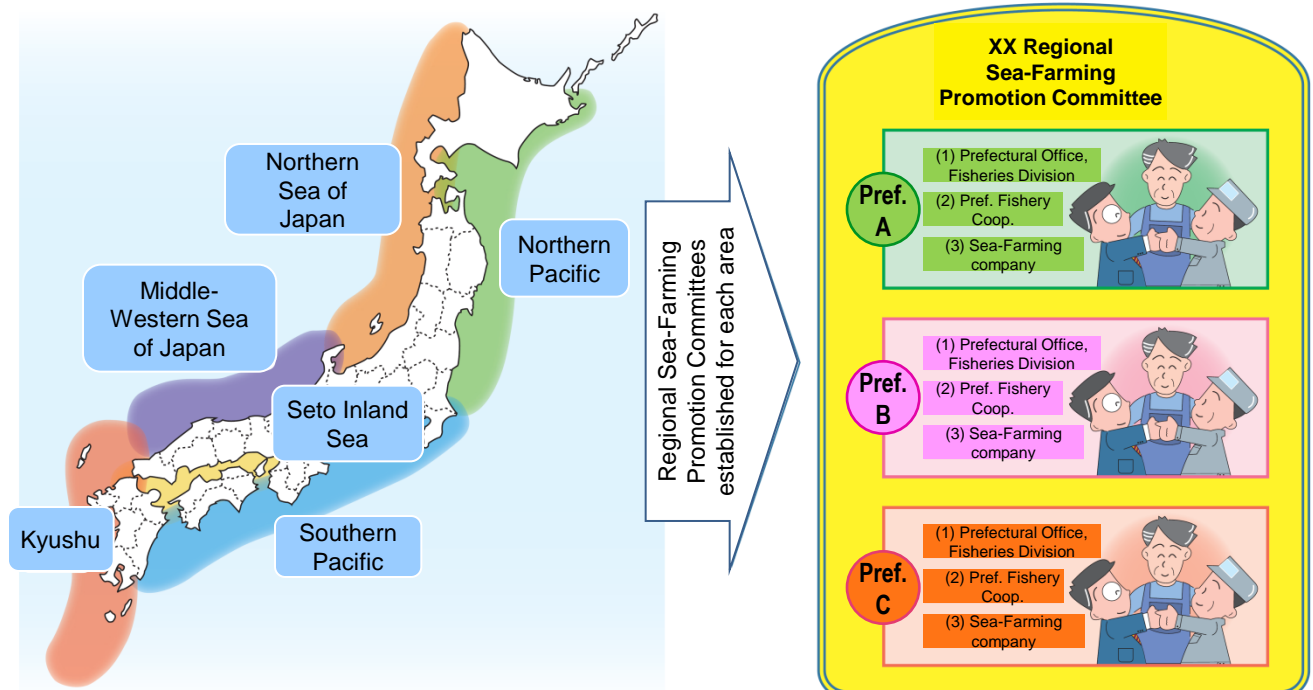
New resource management system based on Resource Management Policies and Resource Management Plans



(Promoting the development of resources through seedling release)

- At the prefectural level, approximately 80 species of sea creatures, including scallops, sea urchins, abalone, prawns, flounder, red sea bream, and salmon, are now subject to seedling release.
- It is important for the prefectures to work together to ensure the effective production and release of seedlings. In 2011, six Regional Sea-Farming Promotion Committees were established throughout Japan as part of a new system for promoting sea-farming.

Waters Administered by Each Regional Sea-Farming Promotion Committee



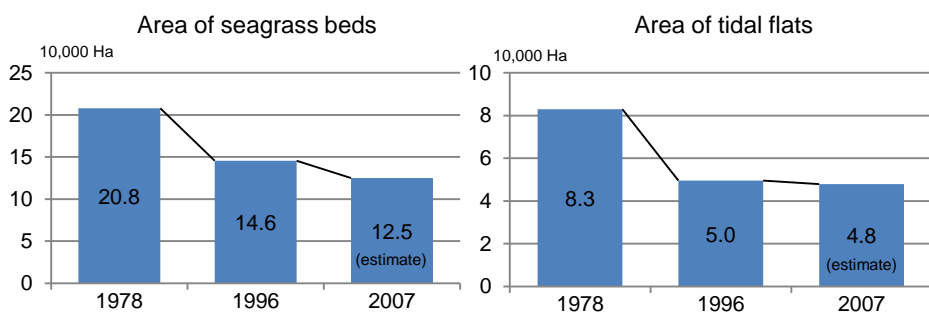
(3) Fishery enforcement to ensure compliance with resource management rules

- Shore reef living resources such as abalone, sea cucumbers, etc. are subject to common fishery rights, which are licensed to fisheries cooperatives, and fishery operators themselves preserve and manage the resources. However, these resources include many that are valuable, and are comparatively easy to catch using simple diving equipments. There have been many incidents of leisure customers catching there resources as well as criminal organizations carrying out fish poaching as a source of funds.
- In addition, violations of regulations (such as for the operating periods, zones) by fishers for fisheries upset the order of fishery resource management, and thus it is necessary to prevent and control such violations.
- To enforce the above issues, authorized fisheries supervisors from the Fisheries Agency and authorized fisheries supervising officers from prefectural governments are carrying out activities in coordination with relevant organizations such as the Japan Coast Guard and prefectural governments. In addition, fishers themselves are taking charge of patrolling their fishing grounds.

(4) Aquatic environment that nurtures fishery resources

- Seagrass beds are important as nursing grounds for young fish and egg-laying of aquatic animals. However, the area of seagrass beds is decreasing significantly due to the development of coastal areas and “sea desertification.”
- Tidal flats are important not only as places where various kinds of organisms can be grown, but as buffer zones that suppress sudden changes in the concentration of nutrient salts that flow in from land areas. However, the area of tidelands is decreasing due to land reclamations.
- The national government has created guidelines that include approaches and measures to counteract sea desertification and the dissipation of tidal flats, and is promoting their popularization as well as support for conservation activities of seagrass beds and tidal flats by fishers and local residents.

Trends in the area of seaweed beds and tidal flats



Source: Ministry of the Environment, *National Survey on the Natural Environment* and survey by the Fisheries Agency (2007)

Conservation activities for seagrass beds, tidal flats, etc. by fishers and local residents



Tillage work of tidal flats using a tractor in 1998

(5) Damage to fisheries by wildlife and harmful organisms

- With regard to fisheries operations in the waters surrounding Japan, there has been feeding damage to fish catches, delay of work, damage to fishing equipment caused by wildlife and harmful organisms such as Steller's sea lions, seals, longheaded eagle rays, sea squirts and large jellyfish.
- The national and prefectural governments are implementing measures such as provision of information to fishers and surveys related to the state of occurrence of harmful organisms, as well as extermination and clearing of harmful organisms.

Locations of occurrence of fishery damage and related details

Name of wildlife/harmful organism	Region of occurrence	Details of damage
Large jellyfish	Sea of Japan side, Sanriku coast	Started appearing in vast quantities in 2002, causing damage such as breakage of fish nets and degradation of catches, etc.
Longheaded eagle rays	Sea of Ariake, Seto Inland Sea	Feeding damage to clams and fan-mussels
Steller's sea lions	Hokkaido, Aomori Prefecture	Damage to fishing equipment and feeding damage to catches
Seals	Hokkaido	Damage to fishing equipment and feeding damage to catches
Sea squirts	Hokkaido, Aomori Prefecture	Damage to scallop aquaculture

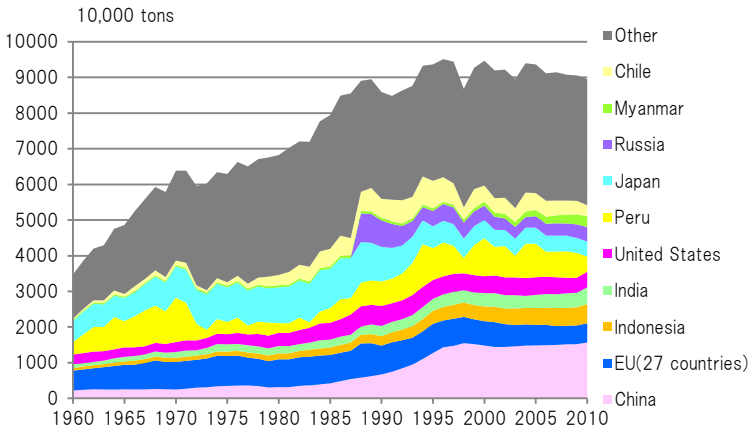
Source: Fisheries Agency survey

Section 4: International affairs surrounding the fishing industry

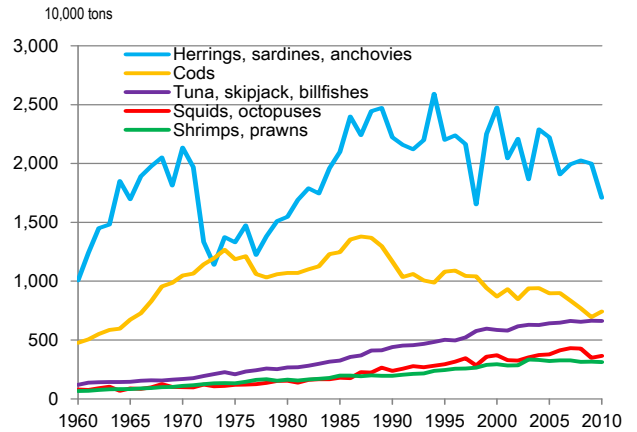
(1) State of world fisheries and aquaculture production

- The global fishery production volume peaked after the second half of the 1980s. In 2010, production volume was 89.52 million tons. By country, China has the highest volume, accounting for 17.5% worldwide. By fish species, production volume of herrings, sardines and anchovies is the largest, accounting for 18.8% of the overall volume.
- Global aquaculture production continues to increase, centering on China. In 2010, the production volume was 78.94 million tons. By country, China has the highest volume, accounting for 60.6% worldwide. By fish species, carps represent the highest volume, making up 30.7% of the total.

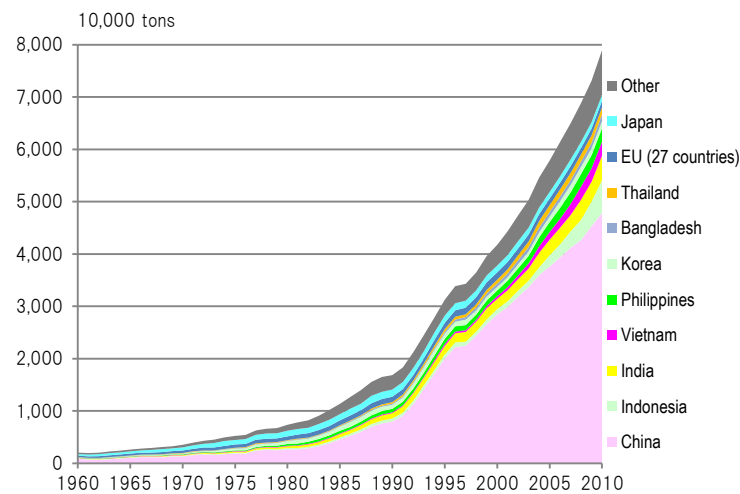
Trends in global fishery production (by country)



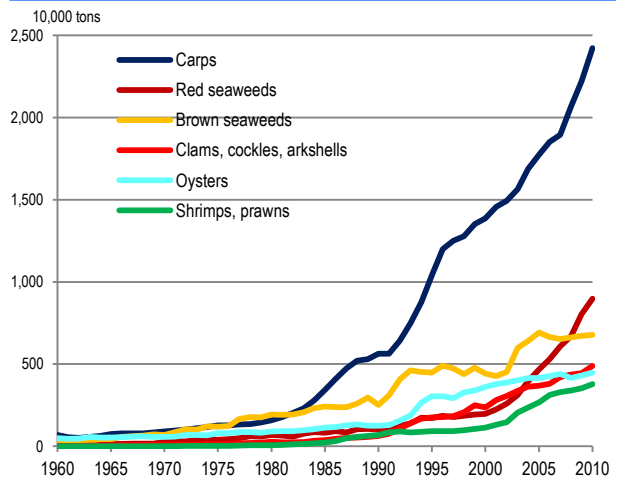
Trends in global fishery production (by fish species)



Trends in global aquaculture production (by country)



Trends in global aquaculture production (by fish species)

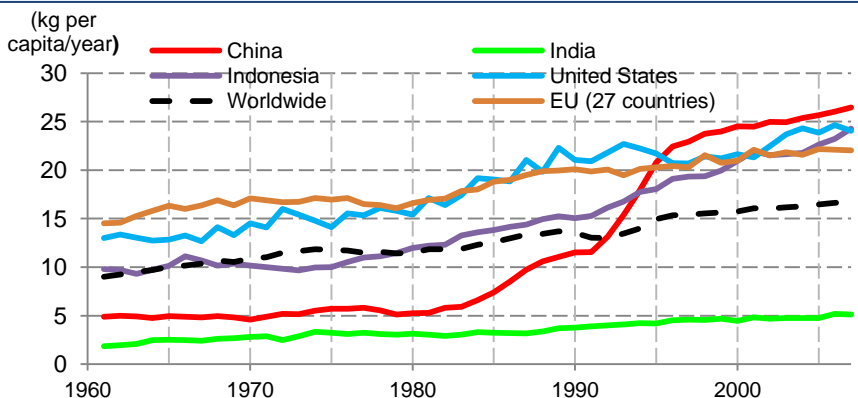


Source: FAO, *Fishstat (Aquaculture production)* (for countries other than Japan) and MAFF, *Statistics on Fishery and Aquaculture Production (Japan)*

(2) Status of world fish and fishery product consumption

- Due to the prevalence of healthy diets in advanced nations and improved dietary standards in developing countries, the global consumption of fish and fishery products continues to increase. The annual global consumption of fish and fishery products per capita has increased seven-fold over the last 50 years.

Trends in the annual global supply of fish and fishery products for human consumption by country (per capita)

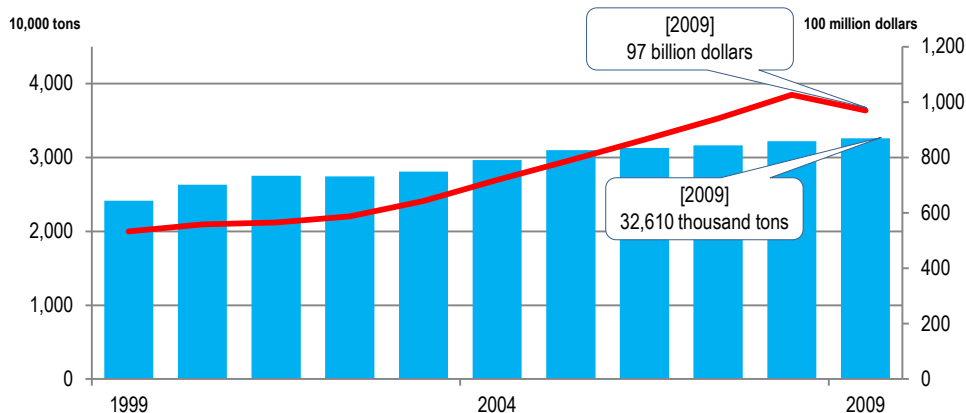


Source: FAO *Food Balance Sheets*

3) Status of international fish and fishery product trade

- As global demand continues to expand, the global trade of fish and fishery products has been increasing both in terms of quantity and value. The global import trade volume in 2009 of fish and fishery products reached its highest-ever level, at 32.61 million tons.

Trends in import trade quantity/value of fish and fishery products worldwide



Source: FAO Fishstat (Commodities Production and Trade)

4) Japan's relations in international fisheries

(Bilateral and multilateral fishery relations)

- Japan has concluded bilateral fishery agreements with Korea, China, and Russia allowing for mutual fishing within each country. In addition, Japan has also secured operations for Japanese fishing vessels based on private contracts and intergovernmental agreements concluded with various island countries in the South Pacific as well as African countries.
- Japan is promoting international fishery resources management through regional fisheries management organizations as well as bilateral negotiations with Korea, China, and Russia.

(Regulation of foreign fishing vessels)

- Illegal fishing operations by foreign fishing vessels in Japan's exclusive economic zone hinder the effective use of fishing grounds by Japanese fishers as well as their efforts toward fishery resource management in Japanese waters.
- In 2011, the Fisheries Agency seized 12 foreign fishing vessels, conducted 115 on-board inspections, and confiscated 28 pieces of fishing equipment that were installed illegally.
- The Fisheries Agency is strengthening monitoring and enforcement in collaboration with relevant agencies such as the Japan Coast Guard.

○ Aiming for sustainable utilization of whale resources

Whales are "blessing of the sea" that have been used as a food resource in various parts of the world since ancient times. In the near future, as aggravation of a global food shortage is anticipated due to an increasing population, it is important to effectively use whale resources as food in a sustainable way.

Japan accepted a moratorium on commercial whaling by the International Whaling Commission (IWC), and has halted commercial whaling of whale species under the jurisdiction of the IWC since 1987.

Also, in order to collect scientific data oriented toward resumption of commercial whaling, Japan has been carrying out research on whale resources employing lethal methods in the Antarctic Ocean and the Northwest Pacific.

Although in recent years, harassment by an anti-whaling organization in relation to the research in the Antarctic Ocean has become an issue, the research programs are conducted based on a legitimate right that is stipulated in Article 8 of the International Convention for the Regulation of Whaling. Japan will take necessary measures against the issue in cooperation with relevant Agencies and Ministries, and will continue conducting research takes of whales.



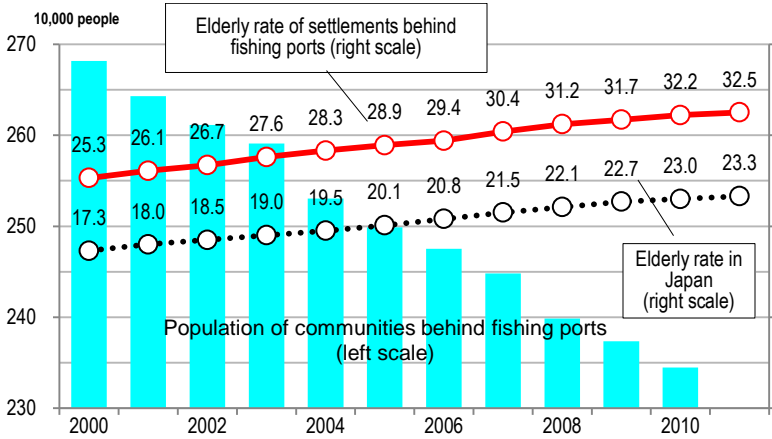
A Japanese sighting and sampling vessel engaged in surveys with whale take in the Antarctic Ocean

Section 5: Development of vigorous fishing communities

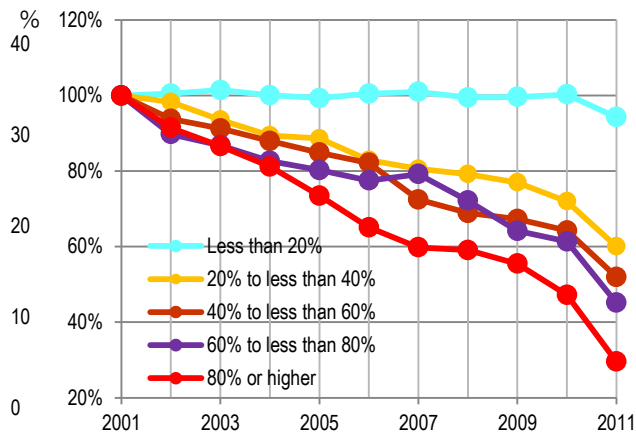
(1) Current state of fishing communities

- There are 6,298 fishing communities in the coastal regions of Japan. Japanese fishing communities are located all over the coastal regions in Japan, including geographically disadvantaged areas such as the outlands, isolated islands and peninsulas.
- Many fishing communities are faced with disadvantages in terms of living and the location of many industries other than the fishery, and population aging and decline are also progressing.
- The fishing industry and fishing communities exhibit multiple functions, such as conservation of the natural environment, security of the lives and assets of citizens and provision of a “place” for cultural and rural exchange. Maintaining and strengthening these functions into the future is an important issue for Japan as an oceanic state.

Trends in the population and elderly rate of communities behind fishing ports



Trends in population by fishery household rate of communities behind fishing ports



Source: Population trend and elderly rate of communities behind fishing ports are based on a survey conducted by the Fisheries Agency. Elderly rate of the entire nation is based on Ministry of Internal Affairs and Communications, *Population Census* for 2000 and 2005, and *Population Estimate* for other years.
 Note: In 2011, surveys could not be conducted in Iwate Prefecture, Miyagi Prefecture, and Fukushima Prefecture due to the impact of the Great East Japan Earthquake and thus, the results regarding the elderly rate of communities behind fishing ports excludes these three prefectures. For the population of communities behind fishing ports, the graph is left blank.

Source: Survey by Fisheries Agency
 Note: In 2011, surveys could not be conducted in Iwate Prefecture, Miyagi Prefecture, and Fukushima Prefecture due to the impact of the Great East Japan Earthquake and thus, the results regarding the elderly rate of communities behind fishing ports excludes these three prefectures.

Multiple functions of the fishing industry/fishing communities

Place of residence, place for cultural and rural exchange

- Maritime recreation
- Experience-based learning

Security of the life and assets of citizens

- Marine salvage
- Border patrol

Fishing Industry/fishing villages
 Stable supply of fish and fishery products
 [Fundamental function]

Formation/maintenance of local societies

- Job creation
- Creation/succession of culture

Conservation of the natural environment

- Supplementing material circulation
- Conservation of ecosystems

(2) Upgrading of the roles and functions of fishing ports

(Current state of fishing ports)

- There are 2,914 fishing ports in Japan.
- At each fishing port, roles are divided according to its scope of use and the configuration of the local fishing industry, and the function of stable supply of marine products is exhibited in the overall region based on cooperation.
- The national government and local public entities are promoting efforts toward upgrading the functions of fishing harbors.

Functions of various fishing ports



(New long-term plan for development of fishing ports and fishing grounds)

- In the new long-term plan for development of fishing ports and fishing grounds that was formulated in March 2012, priorities over the next five years consist of: (a) promotion of a safe region that is resistant to disasters; (b) promotion of a powerful fishing industry that can support stable supply and internationalization of marine products; and (c) promotion of the development of a marine environment that aims for abundant ecosystems. The amount of projects and results to aim for are clearly stated in this plan.

(3) Revitalization of fisheries and fishing communities that make use of local resources

- To enable revitalization of fisheries and fishing communities, it is important to make use of local resources such as fresh fish and fishery products from fishing communities, the outstanding natural environment, traditional cultures, and to increase their attractiveness.
- Fishery cooperatives throughout Japan are making efforts toward revitalizing fishing communities by making use of local resources.
- In order to increase the vitality of fishing communities and ensure employment and income for fishers, activities toward development of sixth industry that utilizes local resources need to be further promoted.

State of activities toward revitalization of fishing communities

	Number of fishery cooperatives (or number of facilities)	Number of participants (1,000 people) (or users)
Activities to promote fish consumption	271	1,042
Fishery experience	200	121
Efforts toward revitalization of activities other than fishery experience, promotion of fish consumption	62	103
Marine product stands run by fishery cooperatives	298	12,476

Source: MAFF, *Census of Fisheries* (2008)

Prize Winners at the 2011 Agriculture, Forestry and Fisheries Festival (Related to Fisheries)

Emperor's Cup

Onna Village Fishery Cooperative Green Caviar Group (Representative: Munekazu Mekarū) Onna Village, Kunigami District, Okinawa Prefecture

The cooperative has been working on aquaculture techniques since 1994 and has established production techniques that enable production of green caviar with good growth and uniform length. They have succeeded in expanding consumption by tourists and locals, as well as broadening sales routes throughout the entire nation. Green caviar has grown to become a special product with the third highest production volume and production amount (FY2009) among aquaculture in Okinawa Prefecture.



Prime Minister's Award

Nagasaki Kamaboko, Ltd. (Representative: Kazumasa Takasaki) Nagasaki City, Nagasaki Prefecture

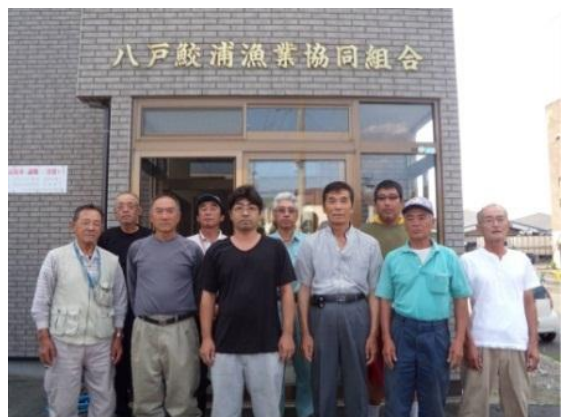
Taking a hint from “shrimp toast,”* which is a traditional home-style dish in Nagasaki, Nagasaki Kamaboko Ltd. has developed frozen food that consists of using minced jack mackerel instead of shrimp and rolling it into a roll shape using bread. They are well-received among young people, as it is possible to enjoy them in the form of fast food. *A dish where minced shrimp is wrapped between two slices of bread and fried in oil.



Agriculture, Forestry and Fisheries of Japan Promotion Association Chairman's Award

Hachinohe Sameura Fishery Cooperative Small Vessel Committee (Representative: Yukio Torishima) Hachinohe City, Aomori Prefecture

Since 1998, the cooperative has introduced a “flounder dragging fishing method” where large flounders can be caught and kept alive on the vessel. In addition to contributing toward resource management by releasing small fish back into the water, the cooperative has been landing live shipments of large fish that can be sold at high prices, and thus increasing their income from the fishery.



Taking into account the harsh current state surrounding fisheries in Japan, (such as the enormous damage caused by the Great East Japan Earthquake, the downturn of the state of resources, and the sharp rise in the price of fuel), and in order to realize the basic principles of the Fisheries Basic Act, (which are “to secure a stable supply of fish and fishery products” and “sound development of fisheries”), the new Basic Plan for Fisheries will comprehensively and systematically promote the following priorities: (1) recovery from the Great East Japan Earthquake, (2) strengthening of fishery resource management under a new management system, (3) realization of business management stability of motivated fishery operators, (4) establishment of a dynamic production structure based on diverse development of fisheries, business, (5) strengthening of safety measures for vessel fishery, (6) stable supply of safe fish and fishery products based on continued development of the processing/distribution industries and expanded consumption, (7) development of safe and vibrant fishing communities, (8) enhancement of technological development and investigative research that supports fisheries, and (9) reorganization and development of fisheries-related organizations will be promoted comprehensively and systematically.

Outline of the “Basic Plan for Fisheries”

I. Basic principle on fishery-related policies

1 Recovery from the Great East Japan Earthquake

- Regions that underwent catastrophic damage due to the Great East Japan Earthquake have an important position in Japan's fisheries
- Full-scale approaches to recover are promoted.

2 Full use of fishery resources based on resource management and sea farming

- As the fishery resources around Japan should be thoroughly utilized, it is indispensable to make efforts toward securing stable development of fisheries management and sustained use of fishery resources based on resource management/fisheries income compensation measures, introduced in FY2011, and to maintain and strengthen self-sufficiency of fish and fishery products.

3 Supply of fish and fishery products that respond to consumers' interest such as “safety and reliability” and “quality,” and expanded consumption based on promoting dietary education

- Consumption of fish and fishery products has declined due to lifestyle changes such as growing preference for easy to eat food.
- At the same time, consumers have a high interest in “safety/reliability” and “quality.”
- To expand consumption of fish and fishery products, it is important to shift to an appropriate production/distribution system, promote food education, construct “face-to-face relationships” between consumers and producers, and make efforts towards strengthening trust.

4 Development of safe and vibrant fishing communities

- It is important to realize fishing regions where people can settle down with hope, by making use of the excellent characteristics of fishing communities, such as landscape, products and festivals.
- In addition to enhancing development of safe fishing ports and communities that are functional and resistant against disasters, the government promote activities oriented toward exhibiting the multiple functions of fisheries and fishing villages.

2. Fishery-related policies that should be established comprehensively and systematically

1 Recovery from the Great East Japan Earthquake

- Steady implementation of measures oriented toward realizing recovery
- Overcome the impacts of the nuclear accident
- Guidelines for fishery recovery that were indicated in the “Basic Guidelines for Reconstruction in response to the Great East Japan Earthquake” and “Fishery Recovery Master Plan,” are reoriented in the basic plan.

2 Strengthening of fishery resource management under a new resource management system

- Strengthening of fishery resource management in Japan's exclusive economic zones
- Promotion of global resource management
- Enhancement of investigative research related to fishery resources
- Securing sustainable aquaculture with little burden on the environment
- Securing the development of fisheries under the coexistence of a variety of marine life

3 Realization of business management stability of motivated fishery operators

- Securing fishery business management based on resource management/fishery income compensation measures (subscription rate of 90% as the target 10 years from now)
 - Appropriate management of the fisheries insurance system
- #### 4 Establishment of a dynamic production structure based on diverse development of fisheries business
- Strengthening of the foundation of fisheries business management oriented toward cultivating a management body with internationally competitive strength
 - Promotion of the development of the sixth industry
 - Precise implementation of business support measures such as finance and credit guarantee
 - Securing new recruits, cultivating human resources, and promoting participation by women

5 Strengthening of safety measures for vessel fishery

6 Stable supply of safe fish and fishery products based on continued development of the processing/distribution industries and expanded consumption

- Enhancement of information dissemination to consumers
- Promotion of fish consumption
- Promotion of quality/hygiene control measures for distribution of fish and fishery products
- Construction of diverse distribution routes
- Increased added value based on fish processing and expansion of sales channels
- Ensuring an appropriate balance between supply and demand by fulfilling processing/distribution functions
- Promotion of exports of fish and fishery products

7 Development of safe and vibrant fishing communities

- Strengthening of disaster-prevention functions and disaster-mitigation measures of fishing ports and fishing communities
- Conservation and strengthening of fishing port functions that serve as the foundation of stable supply of fish and fishery products
- Utilization of local resources and exhibition of the multiple functions of fisheries/fishing communities

8 Enhancement of technological development and investigative research that supports fisheries

9 Reorganization and development of fisheries-related organizations

3. Targets for self-sufficiency rate of fish and fishery products for human consumption

<<Concept behind targets for self-sufficiency rate>>

- In order to make the best of fishery resources around Japan, targets for production/consumption volume that are anticipated as being feasible were established, taking recent trends into consideration, and the ratio that are obtained if such target volumes are achieved were set as the targets for the self-sufficiency rate.

○ Fish (for human consumption)				○ Fish (overall)				○ Seaweed			
	2010	Trend for 2022	Target for 2022		2010	Trend for 2022	Target for 2022		2010	Trend for 2022	Target for 2022
Production volume	409	384	449	Production volume	474	440	515	Production volume	53	47	53
Consumption volume	680 (29.5kg/person per year)	509 (23.3kg/person per year)	646 (29.5kg/person per year)	Consumption volume	886	716	853	Consumption volume	76 (1.0kg/person per year)	65 (0.8kg/person per year)	73 (1.0kg/person per year)
Self-sufficiency rate	60%	—	70%	Self-sufficiency rate	54%	-	60%	Self-sufficiency rate	70%	-	73%

*Unit for production volume and consumption value is 10,000 tons

I Recovery from the Great East Japan Earthquake and Tsunami

In recovery from the Great East Japan Earthquake to reopen businesses as soon as possible, taking into account the diverse characteristics of fisheries that are operating in the affected regions, necessary support will actively be implemented in terms of human resources, budgeting, and know-how. In addition, efforts toward full-scale recovery will be promoted to integrally rebuild fisheries together with related sectors such as distribution and processing and regenerate the region as a new supply source for food.

1 Steady implementation of measures oriented toward realizing recovery

2 Overcome the impacts of the nuclear accident at the TEPCO Fukushima Daiichi nuclear plant

- Supply of safe fish and fishery products and dispelling of rumors by conducting thorough radioactive material surveys of fish and fishery products
- Support oriented towards restarting fishing operations
- Compensation for fishery operators who were victims of the TEPCO Fukushima Daiichi nuclear plant accident

II Strengthening of fishery resource management under a new resource management system

- 1 Strengthening of resource management in Japan's exclusive economic zones
- 2 Promotion of global resource management
- 3 Enhancement of investigative research related to fishery resources
- 4 Establishment of continuous aquaculture with little environmental burdens
- 5 Ensuring development of fisheries based on coexistence of a variety of marine life

III Realization of business management stabilization of motivated fishery operators

- 1 Ensuring stabilization of fisheries business management based on resource management income compensation measures in the fishing industry
- 2 Appropriate management of the fisheries insurance system

IV Establishing a vibrant production structure based on diverse development of fisheries business

- 1 Strengthening of the constitution of fisheries business management oriented towards the cultivation of a management body with internationally competitive strength

Through the Concentrated Project on Fisheries Reform Promotion, fisheries with high yieldability will be cultivated. Promotion activities will include, the introduction of an operational framework focusing on yieldability of fishery vessels, acquisition of energy-saving and labor-saving substitution vessels, collaboration in production activities, and consolidation of management.

Overview of Project on Measures to Secure Vessel Fishery and the New Recruits

Improved yieldability of vessel fishery, etc.

- Efforts that improve the yieldability of vessel fishery will be supported, such as by introducing advanced quality control methods and high-performance vessels

Formulation of a plan that incorporates fish catches to products and shipment, and where the local region acts as one body

Based on the plan, support will be provided to fishery operators conducting verification work on improved yieldability with 3 years as the upper limit for support for necessary expenditures (charter fees, fuel charges, materials cost, etc.)

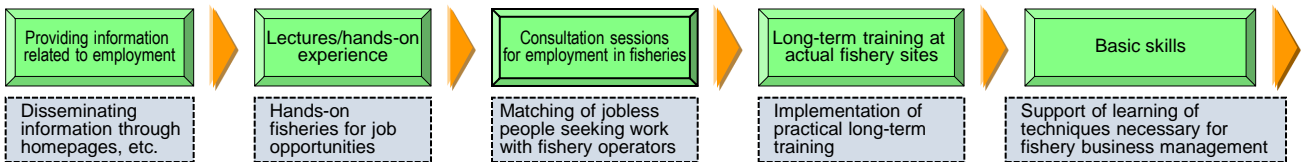
Improved yieldability

Support of scrapping of vessels, etc. based on a resource management plan

- Promotion of approaches for fishery operators to take the initiative to scrap vessels.

Securing human resources in the fishing industry

- Providing comprehensive support so that even people with no experience can work in fisheries



Fostering of persons engaged in the coastal fishing industry who forge the future

- Training on fisheries techniques, administration and business management.
- Support of youth/women's group activities

Securing safe operations

- Acquisition of accident-prevention measures and self-resuscitation measures by fishery operators
- Improvement of safety operation techniques for fishing vessel crew

2 Promotion of the sixth industry

In addition to providing support for processing and sales activities conducted by fishery operators and fishery cooperatives, support will be provided for facilities development and production area activities that make efforts toward developing the sixth industry of fisheries.

Overview of Funds for Creating Strong Fisheries

Support for strengthening fisheries in production areas

Strengthening of fisheries in production areas through the development of the sixth industry

Production area council
(Fishery operator organizations, municipalities)

Plan for strengthening fisheries in production areas

Plan for strengthening fisheries in production areas by increasing income, expanding resources in neighboring areas and developing the sixth industry of fisheries.

Guidance, advice to efficiently promote the development of the sixth industry

(Soft projects)
Review committees, marketing, technology training classes.



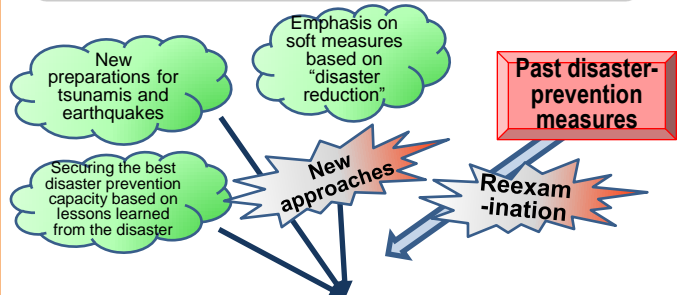
(Hard projects)
Processing/treatment facilities, landing facilities, freezing/refrigeration facilities, fueling facilities.

Formation of fishing villages where fisheries can survive and increased income for fishery operators through the development of the sixth industry in fishing villages

Ensuring sound development of the fishing industry and stable supply of fish and fishery products

Support for disaster-prevention measures in fishing ports

New disaster prevention/disaster reduction measures in fishing villages

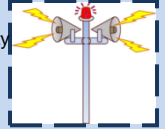


(Major support measures)

Tsunami wreckage prevention fence



Community radio systems



[Items related to tsunami evacuation]



Tsunami evacuation facilities



Creation of hazard maps



Creation of evacuation manuals

Development of fishing ports that are resistant against disasters

3 Implementation of fishery business support measures such as finance and credit guarantee

4 Securing the new recruits, cultivating human resources, and promoting participation by women

V Strengthening of safety measures for vessel fishery

Providing thorough guidance on wearing life jackets to fishery operators and raising their safety awareness will be promoted.

VI Stable supply of safe fish and fishery products based on continued development of the processing/distribution industries and expanded consumption

1 Enhancement of information provision to consumers

2 Promotion of fish consumption

3 Promotion of quality/hygiene control measures for distribution of fish and fishery products

4 Construction of diverse distribution routes

5 Increased added value based on fish processing and expansion of sales channels

6 Ensuring an appropriate balance between supply and demand by exhibiting processing/distribution functions

7 Promotion of exports of fish and fishery products

8 Securing of imports of fish and fishery products

VII Development of safe and vibrant fishing villages

Based on the Third Long-Term Plan for Development of Fishing Ports and Fishing Grounds, and taking into consideration of Basic Plan for Fisheries, strategic development of a fishery infrastructure will be promoted. In doing so, approaches will be made while taking heed of the following: (1) promotion of approaches to synergistically increase the effects of strengthening policy linkage; (2) promotion of approaches that correspond to the roles of the national and local governments; (3) further promotion of centralization and focus on measures for implementing efficient and effective business; (4) effective use of existing stock; (5) promotion of approaches oriented toward constructing a recycling-oriented society;

(6) use of private funds and energy; (7) ensuring transparency and rigorous administration of business evaluations; and (8) appropriate implementation of cost reduction and quality assurance of public works projects.

Overview of fisheries infrastructure development projects

○Taking into consideration of the Great East Japan Earth quake, the Third Long-Term Plan for Development of Fishing Ports has been established. This plan places a priority on recovery of marine resources and hygiene management of fishing ports that serve as a distribution base, and will promote the reinforcement of safety measures for fishing ports against earthquakes and tsunamis.

Development of fishing ports as distribution bases

- Safety/reliability of fish and fishery products
- Hygiene control measures for hub fishing ports that are linked to approaches for export promotion



- Hygiene control measures for fishing ports that serve as distribution hubs, such as specified type III fishing ports
- Strengthening of distribution and processing functions



Fishing ports that serve as distribution hubs

Goods disposal sites with hygiene management

Development of marine environment

- Approximately 40% of fishery resources evaluated are at low level
- Decline in seagrass beds/tidal flats



- Development of frontier fishing grounds
- Preservation/creation of seagrass beds and tidelands, and wide-area development of fishing grounds



Preservation and creation of seagrass beds

Large-scale upwelling fishing grounds

Safety measures for fishing ports

- Aging of fishing port facilities
- Preparations against storm surges/ tidal waves caused by low pressure, and earthquake/tsunami disasters



- Measures for extending the life of fishing port facilities
- Safety measures for fishing ports in response to storm surges/tidal waves and earthquake/tsunamis



Measures against aging

Safety/disaster prevention measures for fishing ports

- 1 Strengthening of disaster-prevention functions and disaster-mitigation measures of fishing ports and fishing villages
- 2 Conservation and strengthening of fishing port functions that serve as the foundation of stable supply of fish and fishery products
- 3 Utilization of local resources and exhibition of the multiple functions of fisheries/fishing villages

VIII Enhancement of technological development and investigative research that supports fisheries

- 1 Development and popularization of new technology that paves the way for the future of fisheries
- 2 Steady implementation of basic surveys and research such as marine environment monitoring.

IX Reorganization and development of fisheries-related organizations

- 1 Reorganization of fisheries-related organizations.
- 2 Securing the business infrastructure of fisheries insurance organizations

X Other important measures

- 1 Approaches toward WTO negotiations.
- 2 Promotion of the creation and use of statistics that support policy needs

XI Necessary items for comprehensively and systematically promoting fisheries-related measures

- 1 Expansion of measures based on the experience of the Great East Japan Earthquake
- 2 Efficient promotion of measures based on coordination with relevant Ministries.
- 3 Expansion of measures from a public perspective based on the needs of consumers and the public
- 4 Promotion of the exhibition of independence, originality and ingenuity of business operators and production regions
- 5 Efficient and focused administration of fiscal measures