MAFF
Ministry of Agriculture, Forestry and Fisheries
Close to Your Daily Life
The duties of the Ministry of Agriculture, Forestry and Fisheries (MAFF) are close to people’s lives.

This brochure provides an overview of our various policies regarding food, agriculture, forestry, fisheries, communities and the environment, which are intimately connected to people’s existences.

MAFF’s mission is to hand down “food” as the basis of human life and a secure “environment” to future generations. We make our utmost efforts to always directly address people’s expectations and propose and implement visionary policies.

Ministry of Agriculture, Forestry and Fisheries (MAFF) Vision Statement
For a National Stable Food Supply

Over the medium to long term, there is concern about a global tight food supply due to rising demand for food spurred by an increase in world population and economic growth in developing countries as well as the impact of climate change on food production. It is necessary for Japan to promote initiatives for securing a stable food supply.

Global Demand for Food
Expected to Increase 60%

World population, which stood at around 6.1 billion in 2000, is expected to increase to approximately 9.6 billion* by 2050. Economic growth in developing countries and accompanying changes in dietary patterns are expected to drive increased global demand for food, with rising demand for meat and for feed grains needed for livestock production. Therefore, global food demand is forecast to rise 60%, from 4.5 billion tons in 2000 to approximately 6.9 billion tons in 2050.

* United Nations World Population Prospects 2012 (medium-range projection)

Three Pillars for Stable Food Supply

Amid concerns about a global medium- to long-term tight food supply, Japan is trying to ensure a stable food supply to citizens by increasing domestic agricultural production as a base and appropriately combining it with imports and stockpiling.

Japan’s Food Self-Sufficiency Ratio Trending Downward

The food self-sufficiency ratio indicates the degree to which domestic food consumption is covered by domestic production. Japan’s food self-sufficiency ratio is trending downward over the long term due to such factors as changes in dietary patterns. To secure a stable food supply, efforts must be made to raise the food self-sufficiency ratio. Various measures are implemented to attain the targets of raising the food self-sufficiency ratio to 45% on a calorie basis and to 73% on a production value basis in fiscal 2025.

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“Strengths of Agriculture, Forestry and Fisheries” Can be Estimated by the Food Self-Sufficiency Potential Index

When trying to indicate food production potential, the food self-sufficiency ratio has certain limitations such as not reflecting the potential of farmland being used for cultivating flowers and other non-food crops. In contrast, the Food Self-Sufficiency Potential Index can indicate “how much food can be produced by domestic production alone.” In other words, this index enables the estimation of “national strengths of agriculture, forestry and fisheries.”

Concept of Food Self-Sufficiency Potential

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Examples of Meal Menu (mainly produce potatoes)

Potato-centered meals can supply 2,736 kcal per person each day (fiscal 2014)

Examples of a meal menu are as shown below.

<table>
<thead>
<tr>
<th>Meal Menu</th>
<th>Calories per Person (Fiscal 2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 bowl of mixed rice, 2 dishes of pickled vegetables</td>
<td>1,528 kcal</td>
</tr>
<tr>
<td>2 baked sweet potatoes, 1 dish of floury potatoes, 1 grilled fish fillet</td>
<td>2,800 kcal</td>
</tr>
<tr>
<td>1 bowl of mixed rice, 2 dishes of pickled vegetables, 1 grilled fish fillet</td>
<td>2,736 kcal</td>
</tr>
</tbody>
</table>

Source: MAFF

Food Self-Sufficiency Potential in a Declining Trend

Production centered on potatoes would provide necessary calories (2,146 kcal) for daily living. However, production centered on rice, wheat and soybeans, which is close to the contemporary dietary pattern, does not provide sufficient calories. There is a declining trend in the food self-sufficiency potential, and it is necessary to maintain and increase this potential.
Linking Plentiful Healthy “Food” with the Future

There is growing interest in Japanese food along with the registry of “Washoku, traditional dietary cultures of the Japanese” as an Intangible Cultural Heritage of Humanity of UNESCO. Activities for handing down this Japanese dietary culture to future generations have started in earnest while various measures are implemented to boost consumption of domestic agricultural, forestry and fishery products and foods.

“Washoku” Represents the Food Culture of the Japanese Respect for Nature

“Washoku” is not simply one cuisine genre, but rather a unique food culture treasured by the Japanese that respects the seasonal abundance of nature, links families, relatives and communities through food and has advanced in a diverse manner in each region.

Features of “Washoku”

- Deep ties to New Year’s and other regular annual events
- Emphasis on the beauty of nature and changing of the seasons in the presentation
- Various fresh ingredients and respect for their natural flavors
- Nutritional well-balanced and healthy diets

Efforts to Link “Washoku” with the Future

“Washoku” is registered as an Intangible Cultural Heritage of Humanity by UNESCO and is an asset shared by all of humankind. As Japan is the mother country of “Washoku,” Japan must ensure the protection and preservation of “Washoku” long into the future.

Accordingly, on the registration of “Washoku” with UNESCO, MAFF is cooperating closely with the Washoku Association of Japan, the only non-governmental organization (NGO) having a responsibility for protection and preservation in order to hand down “Washoku” to future generations through public-private cooperation.

Promoting Consumption of Domestic Food Products through Food Action Nippon

Food Action Nippon is an initiative for promoting consumption of domestic agricultural, forestry and fishery products for the purpose of handing down an abundance of food to future generations. As part of this initiative, consumers, companies, organizations and the government are working together in conducting a national campaign including the use of a logo for boosting consumption of domestic agricultural, forestry and fishery products.

Learn and Think about Food through “Shokuiku” (Food Education)

MAFF promotes the practice of Japanese dietary patterns that have outstanding nutritional balance and feature the staple rice with the combination of various side dishes. The Japanese dietary pattern is a dietary habit that involves eating the staple rice along with a combination of various side dishes such as fish, meat, milk and dairy products, vegetables, seaweed, beans, fruit and tea. This Japanese dietary pattern uses agricultural, forestry and fishery products produced in various regions of Japan and is healthy and offers excellent nutritional balance. The practice of this Japanese dietary pattern is expected to raise the food self-sufficiency ratio and lead to preserving Japan’s valuable food culture.

Agriculture, Forestry and Fishery Experiential Activities (Educational Farms)

MAFF proactively provides opportunities for agriculture, forestry and fishery experiential activities, which include educational farms, to enhance people’s understanding of food and agriculture, forestry and fisheries.

Food Action Nippon Award

This award pays tribute to companies and organizations that contribute to boosting consumption of domestic agricultural, forestry and fishery products through efforts such as developing new products that tap advantage of the balances and characteristics of Japanese food ingredients and undertaking activities for protection and succession of Japanese food cultures.

Eating for Support!

This is an initiative for supporting the reconstruction of devastated areas via the revitalization of production regions by actively consuming agricultural, forestry and fishery products and processed foods from regions struck by the Great East Japan Earthquake as well as the surrounding regions.

Hospitality through Japanese Food

In collaboration with companies and organizations in tourism-related industries, we aim to boost consumption of domestic agricultural, forestry and fishery products by using regional food ingredients and conveying the appeal of Japanese food to consumers.
Ensuring Food Safety and Consumer Confidence

Ensuring Food “Safety” from the Perspective of Consumers

In order to improve food safety and to ensure a stable supply of safe food, MAFF conducts risk management throughout the food chain from production to consumption. In order to secure consumer confidence in food, MAFF disseminates accurate information about risk management and food labeling.

Risk Management Based on Sound Science

To ensure a stable supply of safe food, MAFF conducts risk management based on sound science consistent with an internationally agreed framework and the principle of “prevention is better than cure.”

Specifically, MAFF prioritizes chemical and microbiological hazards and investigates the occurrence of those hazards in foods. As necessary, MAFF elaborates and implements measures for prevention/reduction of chemical/microbiological hazards in foods.

For production materials such as agricultural chemicals, fertilizers, feedstuffs and veterinary medicines, MAFF registers and approves only those materials for which safety has been confirmed, and provides guidance for proper usage and handling.

Plant quarantine

To prevent pests from being introduced into Japan with plants, quarantine officials carry out import inspections at seaports and airports throughout Japan.

Animal quarantine

The Animal Quarantine Service prevents the introduction of infectious diseases by conducting inspections of animals and animal products imported from overseas.

Aquatic animal quarantine

Aquatic animals such as fish are required to be provided with an inspection certificate to confirm their health condition and prevent the introduction of infectious diseases.

Supporting and Spreading Safety Management Activities

MAFF supports process management activities1,2 carried out by farmers and food industry business operators to ensure the progression of initiatives for assuring and improving safety at the production stage as well as at the food processing and distribution stages. MAFF also spreads and provides education on initiatives for traceability to ensure prompt collection in the event of an accident.

Traceability

Food traceability means being able to follow the movement of food. In other words, this involves preparing and keeping records when each business operator handles food. If any problems occur in the food products, this mechanism enables to promptly and quickly establish the causes of the problem and collect products.

Food labeling is one important type of information for consumers to choose products, so ensuring proper labeling is extremely crucial. For this reason, MAFF implements on-site inspections based on the results of monitoring conducted in response to reports about improper labeling that are received through the food labeling emergency call 110 and other means.

Communicating Appropriate Information to Consumers

The Food Communication Project (FCP) is an initiative under which food business operators and related business operators, consumers and government collaborate for gaining consumers’ trust in “food.”

The food chain leading up to the delivery of food on the dining table is long and complex, making it difficult to gain trust in food through the efforts of one food business operator alone. Therefore, with the collaboration of relevant parties, the action points of food business operators are summarized as the “Shared Points of Food Companies’ Activities,” and this is being used to promote the “visualization” of the entire food chain.

“Visualization” of Food Safety and Other Initiatives

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Japan Agricultural Standards (JAS) System

Products bearing the JAS mark pass a certain level of quality and characteristics. The JAS mark can be useful to consumers in choosing which goods to buy, and to enterprises in undertaking transactions of goods.
Increasing Higher Value-Added Agricultural, Forestry and Fishery Products

Raising “Value” through the Collaboration of Primary, Secondary, and Tertiary Industries

To maintain the functions of regional communities and realize bustling communities, it is essential to raise the incomes of persons involved in agriculture, forestry and fisheries and assure their employment. Therefore, together with promoting the sixth industrialization of the agriculture, forestry and fishery sectors, it is necessary to strengthen cooperation among the nursing care, medical, tourism and other sectors expected to grow in the future while working to achieve greater value added for agricultural, forestry and fishery products.

Integration of Primary, Secondary and Tertiary Industries to Realize Sixth Industrialization (1 x 2 x 3 = 6)

Realizing the sixth industrialization is an initiative for the comprehensive and integrated promotion of agriculture, forestry and fisheries as a primary industry; food processing as a secondary industry; and food retailing as a tertiary industry. This aims at creating new added value leveraging the abundant local resources of rural communities such as agriculture, forestry and fishery products and biomass. MAFF promotes initiatives for the sixth industrialization by providing various assistance and financing as well as by utilizing investments from the Agriculture, forestry and fisheries Fund corporation for Innovation, Value-chain and Expansion Japan (A-FIVE).

● Building a Value Chain Based on Customer Needs

Based on consumer and market needs and processing needs, switch to products suitable for processing and improve production methods to raise the quality of products, etc.

Based on consumer and market needs, introduce new processing technologies to improve product quality, introduce HACCP and other measures for manufacturing products safely and securely, etc.

Based on consumer and market needs, accelerate sales channels (supermarkets, JA direct sales locations, roadside stations, etc.)

The GI mark helps differentiate the products.

Enabled producers to protect their own brands without legal expenses. All producers in a region can use Geographical Indication as a regional common property.

● Benefits of Geographical Indication (GI) Protection System

The government provides an “endorsement” of quality of products.

Register Geographical indication as well as producing area and quality standard.

Only those products with guaranteed quality are introduced to markets. The GI mark helps differentiate the products.

The reaction against illicit use is made by the government.

Producing can use Geographical Indication by taking part in registered groups.

Along with the depopulation of rural areas and the aging of people engaged in agriculture, crucial issues are to spur the motivation and maintain the health of elderly persons in agricultural fields and promote the employment of the physically disabled.

Persons with Disabilities Engaged in Work through Agriculture

Kyujin Farm Memuro Co., Ltd. (Memuro Town, Hokkaido)

This company secures year-round work by producing and undertaking primary processing of potatoes, pumpkins and red beets and employs persons with disabilities with wages that exceed minimum wages. In cooperation with other companies, it sells its primary processed products as ingredients for daily dishes and other items and also establishes stable sales routes.

Creating Smiles with New Care Foods

“The Smile Care Foods’ program identifies new areas that not only include food for people with difficulty chewing and swallowing but also food that helps prevent ischemia.” The "New to choose Smile Care Foods for the elderly or patients" has been created as a simplified chart for use when purchasing these foods.

Rising Need for Medicinal Plants

Due to factors such as rising needs at healthcare locations, domestic demand for medicinal plants (herbal medicines) is expected to expand. There is also rising interest for domestic production of medicinal plants that can be grown in abandoned and cultivated land and that can lead to the revitalization of hilly and mountainous areas. Accordingly, MAFF is promoting projects linking with the Ministry of Health, Labour and Welfare and other related organizations and is supporting the production of medicinal plants by exchanging and sharing demand and supply information.

Regional Brands Are Intellectual Property

In Japan, there are many regional brand products which have obtained high quality and reputation as a result of unique production methods and natural characteristics such as regional climate and soil conditions. The Act for Protection of Names of Specific Agricultural, Forestry and Fishery Products and Foodstuffs (Geographical Indication (GI) Act) protects the names of such products as intellectual property.
Further Spreading the Appeal of Japanese Food to the World

MAFF has been making such efforts as promoting sales led by ministers, transmitting information via overseas media, organizing Japanese-food related events and improving the export environment in order to convey accurate information to the world about the appeal of Japanese food and food culture while proactively expanding exports of Japanese food.

Japanese Food as the World’s Most Popular Cuisine

The 2013 registration of “Washoku, traditional dietary cultures of the Japanese” as an Intangible Cultural Heritage of Humanity of UNESCO has triggered a large worldwide Japanese food boom. In a survey by the Japan External Trade Organization (JETRO), Japanese dishes ranked top in the category of “favorite foreign cuisine.” It is estimated that the number of Japanese restaurants in overseas countries has reached approximately 85,000 (as of July 2015), a 60% increase from the previous survey (January 2013).

To expand exports of Japanese food we are promoting sales led by ministers, conveying information through overseas media and holding Japanese-food related events featuring leading chefs as part of efforts to communicate the appeal of Japanese food and food culture to the world.

Sales Led by Ministers

Receptions at Japanese embassies and consulates in each country, trade shows and exhibitions are attended by the Prime Minister, the Minister of Ministry of Agriculture, Forestry and Fisheries and other ministers who introduce the appeal of Japanese food.

Overseas Exhibitions

Events and exhibitions held overseas under the theme “Japan’s Food Culture and Tourism” to introduce Japanese food and traditional crafts and to sell products.

Washoku Cuisine Competition

With the aim of discovering talented chefs capable of conveying the magnificence of Japanese food in cuisines around the world, foreign chefs are invited to Japan to participate in a food competition where they compete in Washoku skills.

World Food Market Expected to Double by 2020

Although Japan’s food market is shrinking, the world food market is forecast to double from 340 trillion yen (2009) to 680 trillion yen (2020) due to an expansion of consumer markets and an increase in the affluent class, mainly in newly emerging countries. The Asian market, including China and India, especially is projected to expand sharply with an approximately threefold increase. Taking this opportunity, how food exports can be increased is a key point for further development of Japan’s agriculture, forestry and fisheries.

Aim for Exports of 1 Trillion Yen through the From x By x In Strategy

The “FBI Strategy” was formulated as an initiative for responding to this demand and raising Japan’s presence in world food markets. This strategy aims at promoting the spread of Japan’s food culture and improving the food export structure of the whole country. The strategy also aims at integrally undertaking three activities, namely, promotion of the use of Japanese food as ingredients of world cuisines (Made in Japan), overseas expansion of Japanese food culture and food industries (Made By Japan) and promotion of the export of Japanese agricultural, forestry and fishery products and foods (Made In Japan). The FBI strategy derives its name from the first letters of “From,” “By” and “In.”

Under this strategy, MAFF aims to raise the export value of agricultural, forestry and fishery products and foods from 611.7 billion yen in 2014 to 1 trillion yen in 2020.
Developing Global Markets

Nationale Export Promotion

To achieve the goal of raising the export value of Japan’s agricultural, forestry and fishery products and foods to 1 trillion yen in 2020, MAFF formulated the “Export promotion strategy of agricultural, forestry and fishery products and foods” (export strategy) and newly established the “Export Strategy Execution Committee” to boost the exports of the whole country. Within the committee, task forces set up for each priority product (fishery products, rice and rice processed products, forestry products, flowers, vegetables and fruit, beef and tea) discuss responses to their respective issues. At the same time, efforts are made to expand exports through export bodies set up for each priority product.

Response to Import Restrictions

MAFF provides information such as inspection results on radioactivity levels in food while requesting import controls based on sound science to the countries which restrict importation of food from Japan. Direct lobbying efforts such as utilizing summit meetings and foreign visits by cabinet members are also encouraged.

Developing “Food Value Chains”

In order to accelerate strategic participation in global markets, MAFF is supporting the development of “Global Food Value Chains” through international cooperation by public sectors and overseas investments by private sectors. Developing food value chains is defined as adding values at each stage from producers to consumers and enhancing linkage through chains. It can be achieved by introduction of irrigation facilities, processing technologies and cold chains. It contributes to the promotion of overseas business of Japanese private companies which have advanced technologies concerning food processing and low-temperature transport, exports of Japanese foods and the development of agriculture and food-related industries in developing countries. It can be achieved by introduction of irrigation facilities, processing technologies and cold chains.

Encouraging People to “Visit,” “Eat” and “Buy”

MAFF is also promoting initiatives for increasing the number of tourists to Japan and to link their “desire to eat real Japanese dishes in Japan with an expansion of exports of agricultural, forestry and fishery products and foods.

In working toward promoting an increase in tourists to Japan, MAFF is establishing the “Hospitality of Food” structure that will encourage people to “Visit” Japan and “Eat” and “Buy” Japanese food. We also promote tourism in rural areas to give tourists an opportunity to experience both the genuine home cooking and traditional foods and местные мероприятия in rural areas. Accordingly, we contribute to the revitalization of local communities and expand employment.

Creating Rural Landscape and Local Cuisine System (tentative name)

With the public and private sectors working together, MAFF is creating a rural landscape and local cuisine system (tentative name) that links local foods to the appeal and stories of landscapes for the purpose of spurring the desire of overseas tourists to visit Japan while also communicating the appeal of Japanese food and food culture.

Responses to Multilingual Needs and Various Customs

MAFF is promoting responses to multilingualization at restaurants such as preparing foreign-language menus in addition to responding to needs for vegetarian and Halal dishes. We are also creating emblems indicating restaurants that actively welcome foreign tourists as well as disseminating information in collaboration with restaurant websites.

Improving the Environment for Sales of Souvenir Gifts

To make it easier for foreign tourists to purchase regional agricultural products and foods, MAFF promotes tax exemptions on purchases at roadside stations and farmers markets. We are also working to ensure smoother animal and plant quarantine inspections when tourists take out from Japan souvenir gifts such as agricultural and livestock products.

Revitalization of Regional Communities Utilizing Globally Important Agricultural Heritage Systems (GIAHS)

GIAHS is an initiative under which the Food and Agriculture Organization of the United Nations (FAO) designates remarkable agricultural land use systems (including forestry and fisheries) and landscapes which are rich in globally significant biological diversity evolving from the co-adaptation of the community with its environment and its needs and aspirations for sustainable development. They have an intricate relationship with their territory, cultural or agricultural landscape or biophysical and wider social environment. In Japan’s designated regions, efforts are being made to revitalize rural areas by promoting the branding of agricultural products that utilize regional characteristics and promoting green tourism.

Designated Regions in Japan (As of October 2015)

<table>
<thead>
<tr>
<th>Region</th>
<th>Agricultural System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sado region, Niigata Prefecture</td>
<td>Sado’s Satoysama in harmony with crested ibis</td>
</tr>
<tr>
<td>Nikko region, Tochigi Prefecture</td>
<td>Nikko’s Satoysama and Satoyama</td>
</tr>
<tr>
<td>Kakegawa peripheral region, Shizuoka Prefecture</td>
<td>Traditional tea-grass integrated system in Shizuoka (local name: Chagusaba)</td>
</tr>
<tr>
<td>Aso region, Kumamoto Prefecture</td>
<td>Managing Aso Grasslands for Sustainable Agriculture</td>
</tr>
<tr>
<td>Kunisaki Peninsula Usa region, Oita Prefecture</td>
<td>Kunisaki Peninsula Usa Integrated Forestry, Agriculture and Fisheries System</td>
</tr>
</tbody>
</table>

Minister of Ministry of Agriculture, Forestry and Fishery in talks with the Turkish Minister of Food, Agriculture and Livestock It contributes to the promotion of overseas business of Japanese private companies which have advanced technologies concerning food processing and low-temperature transport, exports of Japanese foods and the development of agriculture and food-related industries in developing countries.
To ensure progressive agriculture amid economic and social changes, which include a declining population and the advance of globalization and information communications technology (ICT), it is essential to increase the number of motivated and competent farmers who can respond to consumer needs with originality and ingenuity free from the traditional mindset as well as by making decisions independently.

Increasing Motivated and Competent Farmers

Promoting the incorporation of agricultural management entities is an effective means of increasing the number of business-minded farmers. This approach offers numerous benefits: sophisticated business management, securing stable employment, facilitating business succession, improving creditworthiness and expanding employment opportunities in agriculture.

Although, the number of incorporated management entities has doubled over the past 10 years, our target is increasing this number fourfold to 50,000 entities during the next 10 years. Efforts are being made to improve the support system for incorporation through providing a consultation service as well as the enrichment of agricultural management practices.

Incorporation of Agricultural Management Entities and Enrichment of Management Practices

- **Main benefits of incorporation of agricultural management entities**
  - Sophisticate business management
  - Separate household finances from business and clarify composition of finances
  - Secure human resources
  - Create attractive workplaces for excellent human resources by improving work environment
  - Facilitate business succession
  - Realize sustainable business through corporation management
  - Improve creditworthiness
  - Improve creditworthiness from sales destinations and financial institutions
  - Secure investment and financing sources
  - Make available government financing and investments

Initiatives for Advanced Incorporated Entities

The Furukawa Farm Group in Hyogo Prefecture has built a new management model for the sixth industrialization as a corporate group undertaking agricultural production (primary industry), processing (secondary industry) and service (tertiary industry). Group founder Kazuaki Sekimoto established the Furukawa Farm Group in 1999 to undertake dairy farming. In 1972 he reorganized the group as Furukawa Farm Group Ltd. Based on the idea that incorporating agricultural management and expanding the scope of and diversifying management was the most effective means of establishing agriculture as an independent business. Subsequently, he progressed with combining and diversifying operations that included the establishment of Green HF/AIO (grass feed for learning (1992)) and Milk Town (manufacture and sale of milk and dairy products (1996)). To coordinate overall operations within the group, he established the Green West Corporation in 1995. In 2003 Mr. Sekimoto established Hone no Umi (Oyster Cove) for undertaking large-scale customized production of oyster seedlings on an expansive area of land reclaimed by drainage. As a result of building a framework enabling the continuation of management with the sixth industrialization, Mr. Sekimoto has created a venue that currently employs a total of more than 300 regular and part-time staff as a source of employment for the local region.

Encouraging New Farmers

The average age of persons engaged in agriculture is around 66. By age bracket, the population of farmers is conspicuously unbalanced, with persons aged 60 and above accounting for around 75% of farmers while persons aged 40 and below make up just about 10% of all farmers. In view of this situation, efforts must be made to increase young farmers to ensure the sustainable development of agriculture. However, during the start-up phase of agricultural management, besides unstable operations, farmers face a number of issues that include obtaining necessary farming technologies and management know-how and securing essential funds. Accordingly, efforts are being made to secure new farmers through the implementation of a variety of measures: providing income support during training and immediately after commencing operations, supporting farmers employed by agricultural corporations, holding seminars for obtaining farming technologies and management know-how and offering interest-free loans.

Promoting Active Roles for Women Farmers

Women farmers account for nearly half of persons engaged in farming and play a crucial role in the advancement of agricultural management and in developing the sixth industrialization. Agriculture could be developed further if work environments that enable women to perform their capabilities even more are improved. Therefore, MAFF will comprehensively support the creation of environments in which women can fully show their capabilities, including by expanding opportunities for women farmers to play active roles.

**Examples of Product Development Incorporating the Ideas of Women Farmers**

- **Nougyou-Joshi Project**
  - Promoting the incorporation of agricultural management entities is an effective means of increasing the number of business-minded farmers. This approach offers numerous benefits: sophisticated business management, securing stable employment, facilitating business succession, improving creditworthiness and expanding employment opportunities in agriculture.

- **Starting as Farmers in Gifu Prefecture**
  - The unbalanced age composition will improve assuming that the number of young farmers who remain farmers doubles as a result of the increase of new farmers from younger age groups.
Establishing a Strong Agricultural Structure

A strong agricultural structure must be established to make agriculture a progressive industry amid the ongoing aging of farmers and expansion in abandoned cultivated land. Strengthening the Agricultural Infrastructure

For Dramatically Raising Productivity

Improvement of the agricultural infrastructure is also important for concentration and intensification of farmland for core farmers and for realizing highly profitable agriculture. For this reason, MAFF promotes farmland consolidation of rice paddy fields into large plots in collaboration with Farmland Banks. Also, efforts are promoted to improve farmland conditions (for multipurpose use) that enable conversion into dry fields by enhancing drainage capacity and to develop new agricultural irrigation and drainage systems that realize labor-saving water management.

Farmland Consolidation for Business-Minded Farmers

The current age composition of farmers is conspicuously unbalanced and under these circumstances there are concerns of a sharp rise in the number of farmers retiring as well as a surge in abandoned cultivated land within five and 10 years. Amid this situation, to ensure the sustainable development of agriculture, it is necessary to establish an agricultural structure whereby efficient and stable agricultural management undertakes a major portion of production. Therefore, it is essential to improve environments in which farmers who take on challenges with good business sense and independent decision-making can play leading roles. Comprehensive efforts are being made to concentrate and intensify farmland for business-minded farmers, aiming to increase the ratio of farmland used by business-minded farmers from the current 50% to 80% over the next 10 years.

Farmland Consolidation by Public Corporations for Farmland Consolidation to Core Farmers through Renting and Subleasing (Farmland Banks)

To accelerate the farmland consolidation for business-minded farmers, a public corporation for farmland consolidation (Farmland Banks) was established in each prefecture in 2014. The Farmland Banks rent agricultural land from the land lender (person wishing to rent out the land) and lease land to farmers after consolidation that enables ease of use (sublease). Executing this scheme requires discussion among farmers within the region to facilitate the farmland consolidation for business-minded farmers toward solving problems concerning farmland and people in the local region, namely the shortage of business-minded farmers and expansion of abandoned cultivated land, while also having ongoing discussions to create a blueprint for the future of villages and regions (people and farmland plan). Initiatives for solving problems concerning farmland and people through Farmland Banks are getting underway in various regions, such as the example in Wakasa Town, Fukui Prefecture.

State of Devastated Agricultural Land (objective survey and estimate by municipalities)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total area of devastated agricultural land</th>
<th>Devastated agricultural land classified as A category</th>
<th>Area of devastated agricultural land classified as B category</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>27,316 km²</td>
<td>13,286 km²</td>
<td>14,030 km²</td>
</tr>
</tbody>
</table>

Note: “Devastated agricultural land” is defined as agricultural land currently not provided for cultivation and that has been devastated due to the abandonment of agriculture and on which the cultivation of crops under normal agricultural operations is objectively deemed impossible.

Make into aggregated and easy-to-use agricultural land for persons wishing to rent out the land.

Land lender

Land

Farmland Bank

Land

Land borrower

Corporate farms

Large-scale family farms

Company

Example of Farmland Consolidation (Wakasa Town, Fukui Prefecture)

In Wakasa Town, Fukui Prefecture, there were discussions with coordination from regional promotion officials with expertise in local circumstances for regions where sustaining farmland was difficult due to the aging of farmers. Accordingly efforts were made to consolidate farmland for nearby farmers with the Farmland Bank acting as an intermediary.

Trends in the Number of Sudden Accidents on Actual Facilities

Tendency toward frequent sudden accidents such as pipeline ruptures

Measures for Disaster Prevention and Mitigation in Rural Areas

Irrigation facilities have been built nationwide, such as irrigation channels, reservoirs and dams that supply necessary water for agriculture along with drainage canals and pump stations that drain rainwater. In recent years, however, these facilities can no longer fulfill their intended functions due to a tendency for disasters such as earthquakes and torrential rains to be more violent, while the deterioration of the facilities is progressing due to aging. Accordingly, efforts are being made to promote measures that make agricultural irrigation and drainage systems quake resistant, extend the lives of these facilities and prevent flood damage in rural areas.

New Agricultural Irrigation and Drainage Systems (Model)

Introduce pipelines and ICT to build new agricultural irrigation and drainage systems that achieve labor-saving water management and respond to the diverse water usage of farmers while accelerating farmland consolidation.

Extending the Life of Facilities and Improving Resilience against Natural Disasters

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Agricultural and Livestock Products Indispensable in Japanese Food Culture

In Japan, a variety of agricultural and livestock products are produced in accordance with the conditions and circumstances of each region. Regarding the main agricultural products such as rice, vegetables, fruits and livestock products indispensable in Japanese food culture, various support measures are being implemented for expanding production and consumption.

**Full Utilization of Paddy Fields with Crops Demanded**

Per capita rice consumption has decreased by nearly half during the past 50 years due to the aging of society, the declining population and changing dietary patterns. This trend is estimated to continue. On the other hand, besides producing rice, paddy fields also have multifunctional roles that include preventing flooding and soil erosion and stabilizing the water volume of rivers. This is why paddy fields must be maintained in the future. Accordingly, efforts are being made toward the full utilization of paddy fields by shifting production away from rice as a staple food to crops such as rice for feed, wheat and soybeans.

**Boosting Consumption of the Important Staple “Rice”**

Various support measures are being implemented to maintain and raise consumption of rice, which is an indispensable and important staple food of the Japanese people. These include promoting the school lunch program for children, who are the future generation of consumers, and promoting stable transactions of industrial-use rice for home-meal replacement and eating-out, which account for approximately one-third of consumption of rice as a staple.

**Vegetables, Fruits and Flowers**

**Vegetables**

In recent years the purchase of fresh vegetables has declined. On the other hand, there has been an increase in purchases of processed vegetables such as for salads and demand for processing and/or industrial-use vegetables now accounts for around 60% of total demand for vegetables.

Meanwhile, within processing and/or industrial-use demand, the share of domestically produced vegetables has declined to around 70% due to a rise in imported vegetables. Therefore, MAFF provides support such as for the introduction of new technologies for production of processing and/or industrial-use vegetables toward raising the share of domestically produced vegetables.

**Fruit**

Fruit cultivation is labor intensive with numerous operations requiring advanced technologies. Therefore, realizing labor-saving operations and reducing working hours are important issues. Efforts are being made to develop and introduce new cultivation technologies and expand the scale of operations. To boost demand for fruit, initiatives are being promoted to develop varieties that meet customer needs and to introduce these in production regions as well as to develop fruit processed products.

**Flowering Plants**

Various initiatives are being implemented to promote the flowering plants’ industry and flower culture. These include establishing a stable production and supply structure for flowers, increasing the usable life of plants, streamlining distribution, promoting exports, utilizing flowers for public facilities and community development, and undertaking flower nurturing activities.

Additionally, a supply structure is being established for domestically produced flowers that will be used for decorations at the Tokyo Olympics and Paralympics both inside and outside of venues as well as for victory bouquets.

**Provisioning Safe and Good-Quality Domestic Livestock Products**

Such important livestock products as milk, dairy products, beef, pork, chicken and hen eggs are sources of protein and calcium. To deliver safe and good-quality domestic livestock products to consumers, support is being provided for the economic stability of livestock farmers and for raising their productivity.

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*Flowering plants include such ornamental plants as cut flowers, potted flowers, flowering trees, bulbous plants, flower bed seedlings, grass and ground-covering plants.*

*Photograph provided by NARO Institute of Fruit Tree Science*

*Regional flower nursery activities*
To make agriculture a progressive industry, it is necessary to fully utilize the resources and potential of rural areas through technological innovation. For this purpose, efforts are being aimed at expanding the scale of agricultural operations and realizing labor-saving and low-cost operations by introducing cutting-edge technologies from interdisciplinary fields such as robots and information communications technology (ICT).

**Opening the Way to the Future through Cutting-Edge Technologies**

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Smart agriculture involves using robot technologies to improve soil productivity, plant seeds, weed and harvest as well as to record farmwork using cloud systems. This new type of agriculture is now moving closer to reality. Smart agriculture utilizes leading-edge technologies such as robot technologies and ICT to enable ultra-labor-saving and high-quality production. MAFF undertakes initiatives including the research and development and on-site introduction of leading-edge technologies to realize smart agriculture.

**Features of Smart Agriculture**

- Realize ultra-labor-saving and large-scale production (GPS automated driving systems, etc.)
- Provide security and confidence to consumers (cloud systems, etc.)
- Maximize the potential of crops (detailed and precise agricultural operations)
- Release farmers from heavy labor and dangerous work (wearable robots, weeding robots, etc.)
- Realize farmer-friendly agriculture (assist devices for agricultural machinery, data compilation of know-how, etc.)
- Maximize the potential of crops (Detailed and precise agricultural operations)

**Utilization of Robot Technologies**

To realize on-site labor-saving operations in the agricultural, forestry and fisheries and food industries, MAFF promotes the introduction of robot technologies in collaboration with the robot and other industries. That includes the automation of work using GPS* automated driving systems and the mechanization and automation of heavy human work. These technologies are based on the "Japan’s Robot Strategy," decided at meetings of the Headquarters for Japan’s Economic Revitalization.

*GPS: Global positioning system

**Utilization of ICT**

The sophistication and efficiency of production systems through accumulated data analysis using ICT is expected to also enable efficient operation in extensive fields. Progress is also being made in research enabling "craftsmanship" to be put into a database and manuals that allow even people with little experience to use sophisticated technologies. This could bring hopes for the smooth succession of technologies to younger generations and for an increase in new farmers.

**Next-Generation Greenhouse Horticulture**

Greenhouse horticulture is indispensable for stable supplies and production of vegetables and other agricultural products. However, many of these products require warming in winter, making it essential to break away from reliance on fossil fuels from the perspective of cost reductions and global warming. For this reason, MAFF promotes the establishment of next-generation greenhouse horticulture bases that consolidate facilities for large-scale operations and perform advanced environmental control through the use of ICT. These facilities undertake total operations from production to preparation and shipment while reducing costs through the use of local energy such as woody biomass. Besides breaking away from reliance on fossil fuels, it is expected to raise the income of producers and create jobs locally.
Japanese agriculture, forestry and fisheries and rural areas are engaged in a variety of work: conservation of national land, protection of water resources, preservation of the natural environment, creation of landscapes and the passing down of culture as well as serving as the base of food industry. The multifunctional roles of agriculture, forestry and fisheries and rural areas are valuable assets for the country and should be maintained and used to their full potential.

**Living with and Fully Utilizing Nature**

**Conservation of National Land and Prevention of Disasters**

- **Forests**: Have functions to prevent landslides by developing tree roots running underground and to adjust the flow rate of rivers by absorbing rainwater in soil generated through the accumulation of fallen leaves. The restoration of degraded forests will improve these functions.

- **Paddy fields**: Have functions to prevent floods and submergence in surrounding areas by temporarily storing rainwater. Water stored in paddy fields permeates soil and gradually becomes groundwater, and helps ensure stable river flows.

- **Seacoasts**: There are about 6,300 fishery settlements and about 160,000 fishing vessels in service at coastal areas in Japan. They form a network which fulfills various functions such as providing sea rescue and disaster relief, environmental monitoring and border patrol, with the aim of protecting individuals and community safety.

**Nurturing of Natural Riches and Diverse Life Forms**

- **Forests in Japan**: Provide habitats for wildlife, including about 200 species of birds, about 700 species of trees and about 2,000 species of shrubs and grass.

- **Seaweed beds**: Covered with marine algae supply oxygen to water and provide fish with a place for spawning and nursery.

- **Tidelands**: Provide habitats for various life organisms, including shellfish and lugworms. These organisms have functions to break down nutrients brought by rivers, including nitrogen and phosphorus, and to purify seawater.

**Estimated Value of the Multifunctional Roles of Japanese Agriculture, Forestry and Fisheries**

- Agriculture: Approx. 8 trillion yen
- Forestry: Approx. 70 trillion yen
- Fisheries and fishing community: Approx. 11 trillion yen

Source: Science Council of Japan

* Evaluations were made for those parts of the roles evaluable in monetary value.

**Other Functions**

- Creation of beautiful landscapes
- Inheritance of traditional culture
- Nurturing of a rich spirit through environmental education and experiential learning
- Promotion of health by providing opportunities to have contact with nature through leisure and sports activities
- Avoidance of the temperature rise in summer in surrounding urban areas by paddy fields

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Making Use of the Cyclical Function of Nature

Biodiversity refers to the fact that there is a variety of life on earth and that this life coexists and is connected through diverse environments. It could be said that agriculture, forestry and fisheries are activities that utilize the cyclical function relating to diverse types of life in the natural world. Our continued endeavors help to create unique natural environments that include regional land, forests and coastal seas, along with providing a nurturing environment for diverse types of flora and fauna.

Efforts to Protect Rural Resources by Communities

Farmland and agricultural waterways, which are important rural resources developed by and managed through community collaborative activities, play various important roles such as food production, flood prevention and providing habitats for diversified ecosystems. However, it is becoming increasingly difficult to manage and maintain such rural resources due to aging in rural areas. MAFF supports efforts by rural communities with the participation of a wide variety of farmers and other people in order to protect these rural resources.

Coexistence and Exchanges between Urban and Rural Areas

Rural resources such as abundant nature, food and culture attract the attention of urban residents. Making effective use of these rural resources through locally conceived, creative ways, in the form of green tourism, education for children and health maintenance for the elderly leads to revitalization of, and increased income and employment for, rural communities.

Discover Countryside Treasures in Japan

To really draw out the potential of rural communities and realize strong agriculture, forestry and fisheries as well as beautiful, vibrant rural areas, MAFF is conducting a campaign encouraging people to discover countryside treasures in Japan by selecting the best examples of efforts aimed at regional revitalization and income enhancement and disseminating these countrywide.

Measures against Damage Caused by Wildlife

In recent years, damage to crops and so forth by wildlife such as deer and bears has been escalating. In addition to directly damaging crops, the damage caused by wildlife reduces farmers’ motivation and increases abandoned uncultivated land, which in turn leads to further damage by wildlife as part of a vicious cycle. In response, MAFF supports activities by rural communities to prevent damage that include the installation of fences to prevent wildlife from entering, the capture of wildlife and other activities to repel wildlife. We also support the improvement of meat processing facilities on the back of rising demand toward the utilization of captured wildlife for human consumption.

Rural Areas (Satochi-Satoyama)

Rice paddies do more than just produce rice; they nurture frogs and loaches as well as storks that feed on these living creatures. For this reason, it is important to develop rice paddies in a way that is kind to biodiversity such as through sustainable agriculture and establishing fish passages.

Forests

A myriad of living creatures inhabit and grow in forests. Appropriate thinning brings more light to a forest and enables many plants to grow close to the ground.

Coastal Sea (Satoumi) and Oceanic Areas

Seaweed beds and tidelands in coastal sea areas are growing and egg-laying sites for a diverse array of living creatures are purifying wastewater and other land-based pollution. Conservation activities such as cleanups as well as creation of seaweed beds and tidelands are critical.
**Environment and Energy Policy**

**Toward the Creation of a Sustainable Society**

Amid rising interest in the environment and energy, agricultural programs are conducted nationwide with a shift in focus to environmental and energy-related measures. Efforts are also being made to create a recycling-oriented society that include the reduction of food loss and waste and the utilization of resources in rural areas.

**Concerns over the Impact of Climate Change**

As adaptation to climate change, in which the impact on agriculture, forestry and fisheries is a concern, MAFF is taking a number of steps: a focused response relating to irrigated rice and fruit trees, pests, weeds and natural disasters, which have a significant social impact; utilization of opportunities stemming from climate change such as a shift to subtropical fruit trees; and promotion of research and development. We also promote the shift to energy-saving greenhouse horticulture using heat pumps and woody biomass and the extension of energy-saving farm machinery in order to reduce greenhouse gas emissions.

**Existing Effects of Climate Change**

[Image of climate change effects]

**Agriculture Applying the Cyclical Function of Nature**

MAFF promotes eco-friendly agriculture nationwide. This refers to sustainable agriculture applying the cyclical function of nature, paying attention to a harmonious balance with productivity and contributing to the reduction of environmental burden due to the use of chemical fertilizers and pesticides. In recent years, we also support farming that is highly effective in mitigation of global warming and conserving biodiversity.

**Farming Effective in Curbing Global Warming and Conserving Biodiversity**

Green manure cropping and using compost on fields have the effect to increase the carbon stock in the soil, which leads to the mitigation of global warming. In addition, a diverse array of living creatures are free to grow since organic farming does not use chemical fertilizer or agricultural chemicals.

**Recycling of Food Waste**

Close to 19 million tons of food waste is generated per annum in food production, food distribution and the food service industry in Japan. By recycling food waste as feedstuff and fertilizer, MAFF aims to both reduce waste disposal and create a recycling-oriented society with minimal environmental burden.

**Taking Back Waste**

“Food loss” refers to discarded food even though it is still edible. A total of 6,420,000 tons of food loss is generated every year in Japan. It is equal to the amount of fish and seafood supplied for consumption in Japan. In order to reduce this food loss, the “NO-FOODLOSS PROJECT” is conducted as a national campaign to minimize food loss through private and public sector collaboration with “Let’s take back waste!” as its slogan.

**Promoting the Introduction of Renewable Energy**

Rural areas, which make up a large part of Japan, possess an abundance of resources such as water and land and have high potential for renewable energy use. Moreover, the Feed-in Tariff scheme provides the opportunity for significant business profit when generating renewable energy and the possibility of new income. For that reason, MAFF is promoting initiatives to contribute to the development of regional agriculture, forestry and fisheries in conjunction with the introduction of renewable energy while properly coordinating utilization of land.
Utilization of Forest Resources in the Suitable Period

Japan’s forest resources, which were planted after World War II, have reached a suitable period for utilization. It is important to engage in the cyclic use of forest resources and make forestry a progressive industry.

Increasing Forest Resources

◆ Increase in Planted Forests Mainly
Japan’s land area covered by forests remains approximately 25 million hectares in recent years. On the other hand, the volume of forest stock continues to increase steadily, standing at 4.9 billion cubic meters (as of 2012), which is roughly double that of the 1975-1984 period. In particular, the increase in volume of planted forests is remarkable.

◆ Aging Forests with At Least 50 Years Growth Increasing Annually
Looking at the area of planted forests by age class, although many require thinning, the number of planted forests of an age class (at least 50 years) in which the resources are suitable for utilization is increasing yearly.

Making Forestry a Progressive Industry Based on the Cyclic Use of Forest Resources

In order to promote the cyclic use of forest resources that have entered a period of full-scale use and contribute to a progressive forestry industry, MAFF is trying to promote new demand for timber, creating a stable and efficient supply system for domestic forest resources in accordance with consumer needs, and maintaining and improving the multifunctional roles of forests through forest improvement and conservation by way of thinning and other means.

Incredible Potential in Wood Use

◆ Timber as an Energy-Saving Material
The figure on the right shows carbon emissions during production for wood products (air dried lumber, kiln dried lumber, plywood, particle board) as well as steel, aluminum, concrete and other materials. Wood products generate an extremely low volume of carbon compared with materials such as steel and concrete. This means that wood products contribute significantly to curb the mitigation of global warming.

◆ Supply of Domestic Logs for Plywood Materials GrowingSignificantly
In recent years, the improvement of processing techniques has enabled the effective use of small-diameter logs such as ones from forest thinning. Accordingly, domestic firer is increasingly used as plywood materials.

◆ Growing Use of Wooden Public Buildings
Since the development of new wooden building materials such as fire-preventive glued laminated timber, the use of wood products is increasingly promoted in large-scale facilities that previously used different materials, including commercial facilities and public facilities such as schools.

Development and Introduction of New Timber Products

CLT (Cross Laminated Timber) refers to thick-type panels made from laminated boards that are glued together, alternating the direction of their fibers for each layer. This provides the benefits of exceptional thermal insulation, energy-saving effects and earthquake resistance in addition to short construction time at building sites owing to the simple workmanship. It is hoped that CLT will open the path to a shift to wood in urban architecture based on domestic wood.
Aiming for the Revitalization of Japan’s Fisheries

Global consumption of fishery products is rising annually primarily on the back of an increasing population and economic growth in developing countries. Amid these circumstances, a variety of initiatives have been started to revitalize Japan’s fisheries and transform into a progressive industry by drawing out the potential of Japan’s fisheries.

Promoting Export and Domestic Consumption of Fishery Products

Japan’s fishery products have a high valuation in international markets. The export value of fishery products accounts for roughly 40% of total export value of agricultural, forestry and fishery products and foods. Japan aims to boost annual export value of fishery products to 350 billion yen in 2020, up from 170 billion yen in 2012. To achieve this aim, efforts are being made to improve export circumstances, which includes that the Fisheries Agency has started HACCP* authorization of fishery processing facilities required for exports of fishery products to the EU.

In addition, projects such as “Fast Fish” are being undertaken within Japan to increase fish consumption. Global consumption of fishery products is rising annually primarily on the back of an increasing population and economic growth in developing countries. In addition, efforts are being made to support inspections and monitoring of foreign fishing vessels by fishermen and to provide relief following damage to fishing equipment caused by foreign fishing vessels.

Sustainable Use through Proper Fishing Resources Management

In order to ensure the sustainable use of living aquatic resources, it is important to prevent excessive fishing and deterioration in fisheries environments as well as maintain and increase resources. Japan conducts fishing resources management that combines a variety of techniques depending on the characteristics of the fisheries industry.

MAFF conducts voluntary management in the waters surrounding Japan, particularly the suspension of fishing, in conjunction with fishermen and in line with the fishing license system and formal regulations such as the Total Allowable Catch (TAC) system. Efforts are also being made to recover the function of seaweed beds and tidelands necessary for seed release and to nurture fish.

Regarding international initiatives, we actively participate in regional fisheries management organizations (RFMOs) and take a leadership role in promoting fishing resources management together with the countries concerned.

Fisheries Revitalization Plan

The fisheries revitalization plan is an initiative aimed at raising fishery income based on the identification of a vision and tackling challenges in each fishing community. This is key for “true revitalization” by fishing communities. The objective is to increase fishery income by 10% or higher over a period of five years by implementing a variety of initiatives toward this goal around the country.

Initiatives to increase income

● Increase income of fishermen (by 10% or higher over 5 years)
● Collaboration with other industries (restaurant business, tourism, etc.)

Initiatives to minimize costs

● Ties with other industries such as tourism

Formulate and implement concrete solutions befitting the actual condition of each fishing community.

Protecting Fishery Resources from Illegal Fishing by Foreign Fishing Vessels

Illegal fishing by foreign fishing vessels hinders the effective use of fishing areas by Japan’s fishermen and has a negative impact on efforts for resources management. In order to protect the order of operations and fisheries resources in Japan’s surrounding waters, the Fisheries Agency is strengthening monitoring and enforcement. In addition, efforts are being made to support inspections and monitoring of foreign fishing vessels by fishermen and to provide relief following damage to fishing equipment caused by foreign fishing vessels.

Number of Fishing Patrol Vessels (as of April 2015)

<table>
<thead>
<tr>
<th>Vessels</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government ships (ships owned by the Fisheries Agency)</td>
<td>7</td>
</tr>
<tr>
<td>Chartered ships (private ships)</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
</tr>
</tbody>
</table>

Results of Inspections (cases, 2014)

<table>
<thead>
<tr>
<th>Type of Inspection</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-board inspections</td>
<td>81</td>
</tr>
<tr>
<td>Seizure of fishing equipment used in poaching</td>
<td>20</td>
</tr>
<tr>
<td>Seizure of vessel</td>
<td>14 (South Korea 7, China 5, Taiwan 2)</td>
</tr>
</tbody>
</table>
Organization of MAFF (As of October 2015)