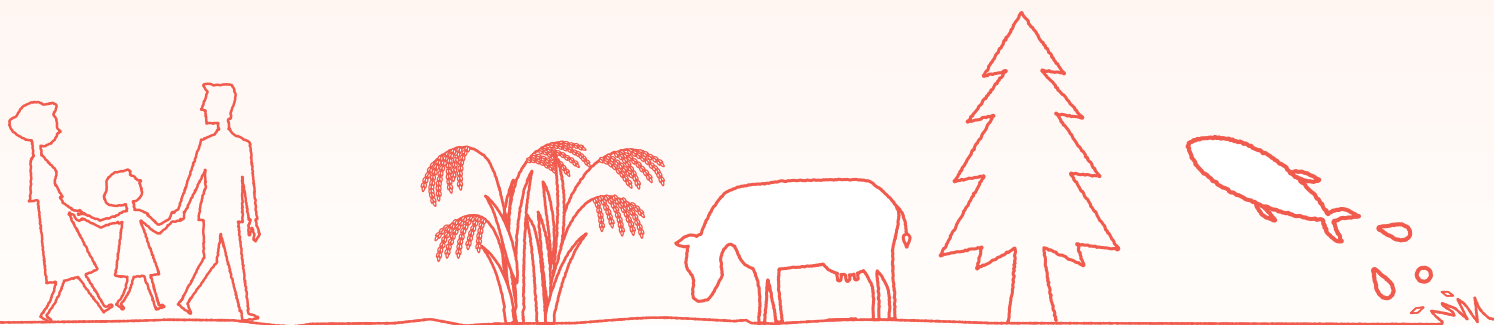


MAFF

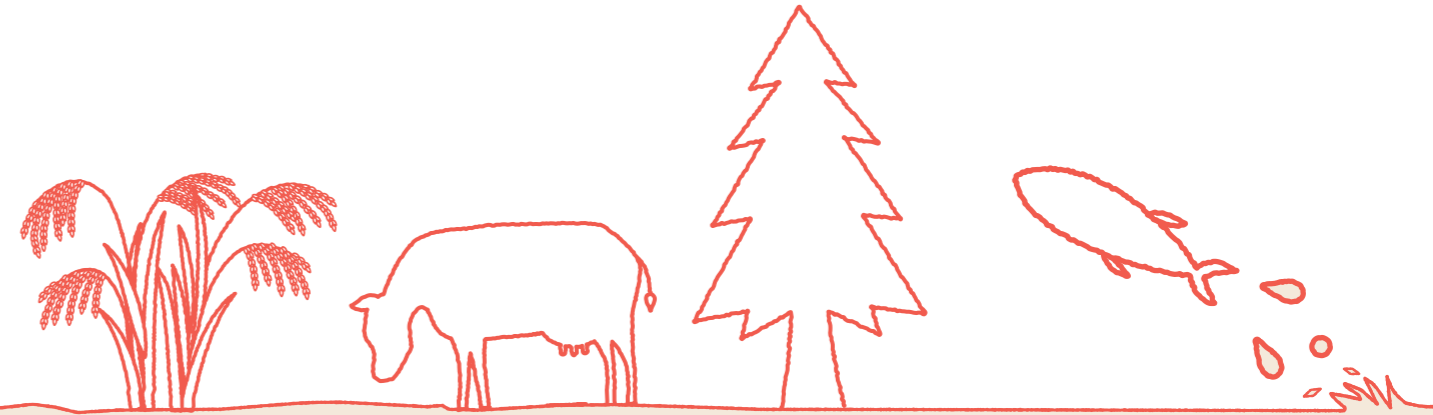
Ministry of Agriculture,
Forestry and Fisheries

Close to Your Daily Life





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

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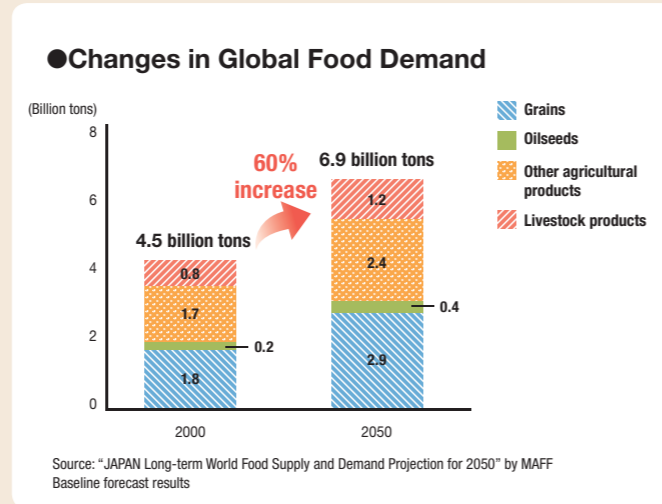
For a National Stable Food Supply

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%

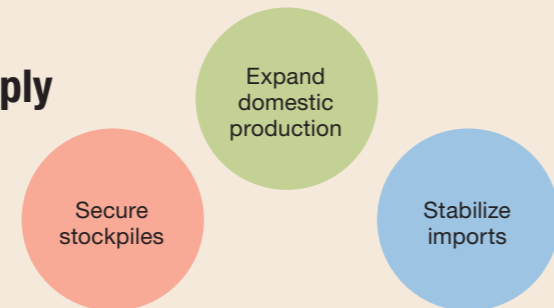
World population, which stood at around 6.1 billion in 2000, is expected to increase to approximately 9.6 billion* by 2050. Economic growth in developing countries and accompanying changes in dietary patterns are expected to drive increased global demand for food, with rising demand for meat and for 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

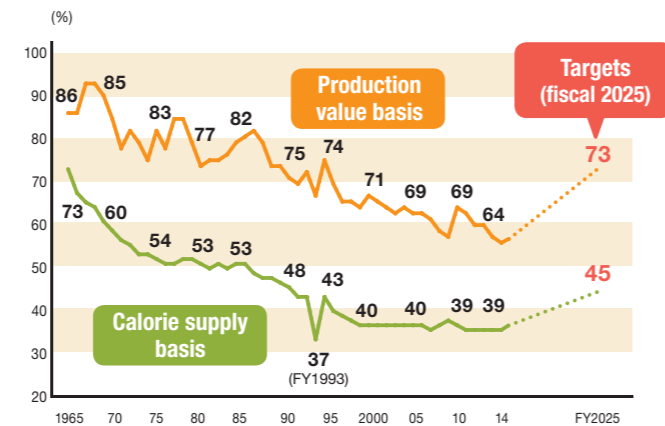
Amid concerns about a global medium- to long-term tight food supply, Japan is trying to ensure a stable food supply to citizens by increasing domestic agricultural production as a base and appropriately combining it with imports and stockpiling.



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.

Food Self-Sufficiency Ratio Trends and Targets

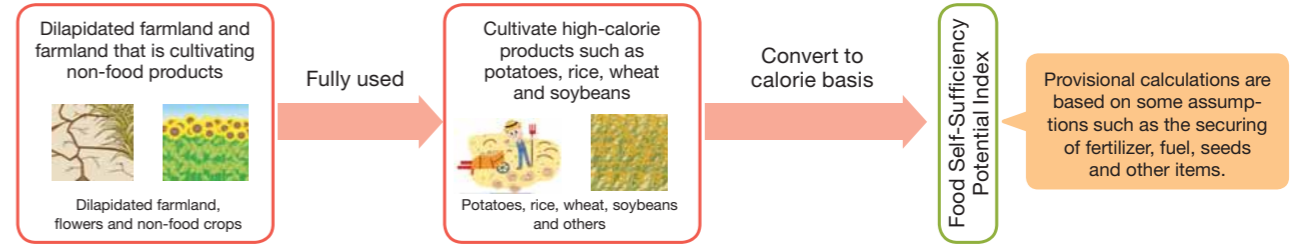


"Strengths of Agriculture, Forestry and Fisheries" Can be Estimated by the Food Self-Sufficiency Potential Index

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

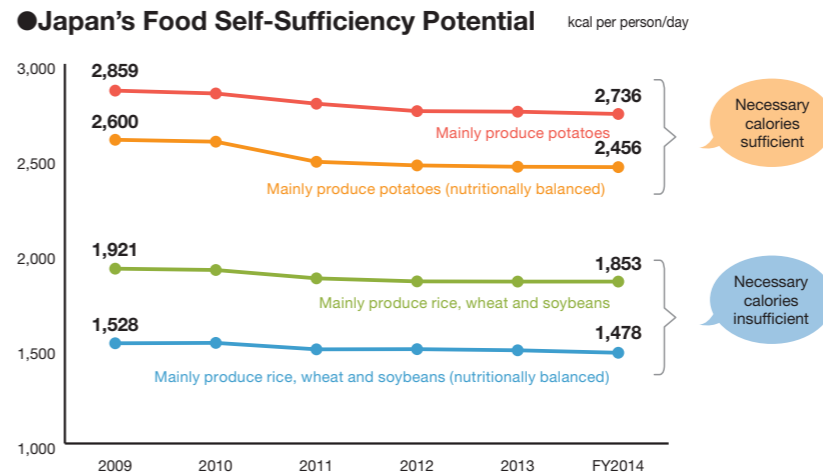
by domestic production alone." In other words, this index enables the estimation of "national strengths of agriculture, forestry and fisheries."

Concept of Food Self-Sufficiency Potential



Food Self-Sufficiency Potential in a Declining Trend

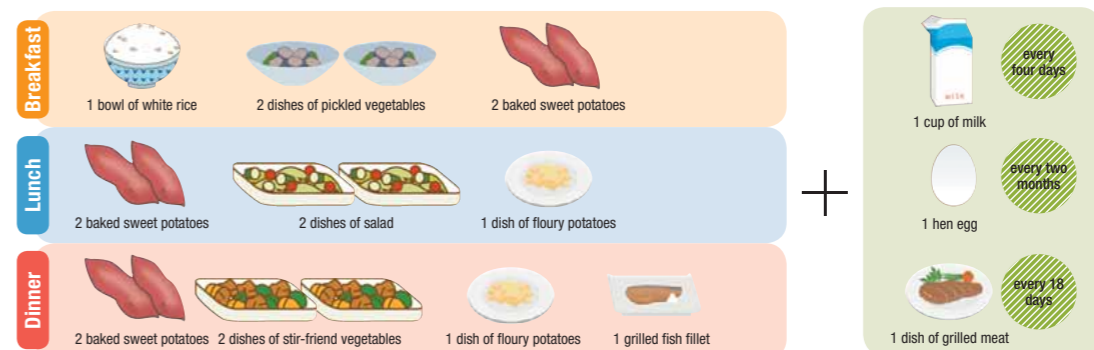
Japan's Food Self-Sufficiency Potential



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.

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.





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 food 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)



(Nutritionally well-balanced and healthy diets)



(Various fresh ingredients and respect for their natural flavors)



Washoku School Lunch Program Support Group

The Washoku School Lunch Program Support Group is an organization formed by young Washoku chefs to teach children in an easy-to-understand manner about the magnificence of "Washoku," which is part of the traditional food culture of the Japanese. In cooperation with representatives of elementary and junior high schools across Japan, this group plans new Washoku menus and menus emphasizing the local consumption of local produce for students and visits schools to prepare meals and hold "Shokuiku" (food education) classes.



The Washoku School Lunch Program Support Group prepares meals at an elementary school.

Efforts to Link “Washoku” with the Future

“Washoku” is registered as an Intangible Cultural Heritage of Humanity of UNESCO and is an asset shared by all of humankind. As Japan is the mother country of “Washoku,” Japanese 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 (Washoku 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.



Logo of The Washoku Association of Japan



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 a diversity of 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.

Woman's Forum for Fish (Chuo Ward, Tokyo)



Experiencing cooking fish

Targeting consumers and their children in Tokyo, women involved in the fisheries industry throughout Japan carry out this initiative that conveys the "importance of the ocean, fish and fisheries" and provides participants with the opportunity to prepare and enjoy fish cuisine together. This forum also promotes interchanges between cities and fishing villages including visits to fishing villages by children.

Ibaraki Co-op Consumers' Cooperative Association (Omitama City, Ibaraki Prefecture)



Rice cutting by the Azemichi Exchange Society

This association forms "Shokuiku" support teams and holds a variety of "Eating is important" "Shokuiku" activities for kindergarten and elementary school children and also undertakes agricultural experiential activities in cooperation with JA and producers. It also promotes "Let's eat products from Ibaraki Prefecture," a "Shokuiku" experiential activity, in cooperation with government agencies.

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.



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 take advantage of the tastiness and characteristics of Japanese food ingredients and undertaking activities for protection and succession of Japanese food culture.



Fiscal 2014 award "Kagome Tomato Juice PREMIUM"

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 stricken by the Great East Japan Earthquake as well as the surrounding regions.



Eating for Support! Channel (presently aired on YouTube)

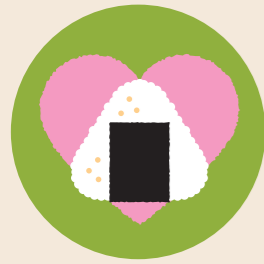
Hospitality through Japanese Food



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.



"Hospitality Partner through Japanese Food" in which travelers are welcome to enjoy regional food ingredients



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

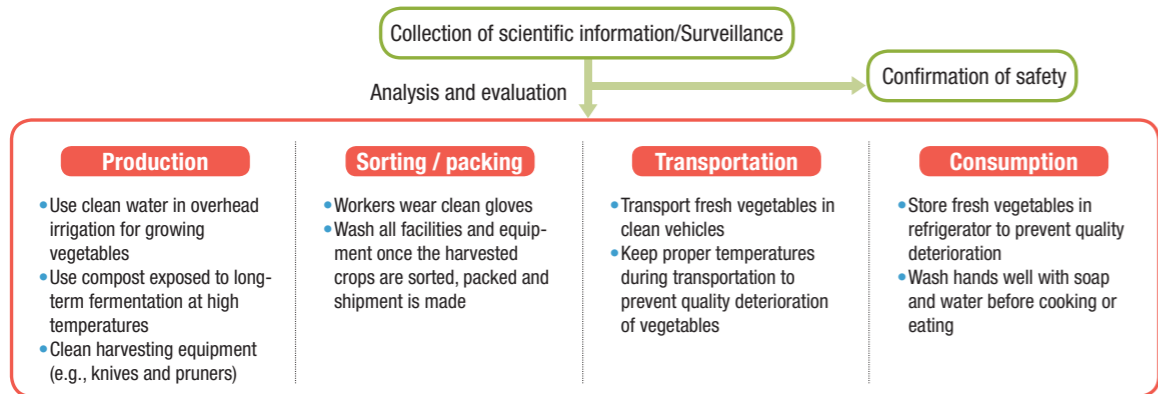
To ensure a stable supply of safe food, MAFF conducts risk management based on sound science consistent with an internationally agreed framework and the principle of “prevention is better than cure.”

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.

●Example of Fresh Vegetable Sanitary Control



Supporting and Spreading Safety Management Activities

MAFF supports process management activities^{*1,*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.

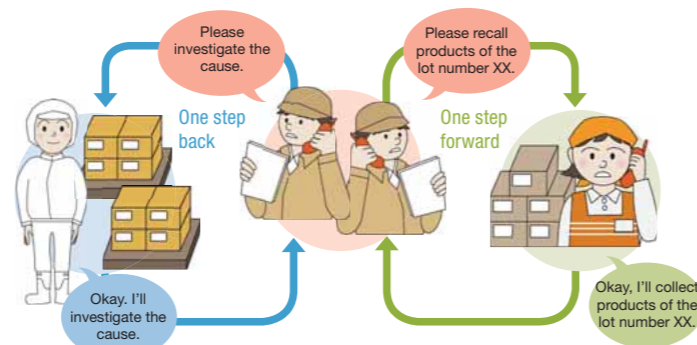
MAFF also spreads and provides education on initiatives for traceability to ensure prompt collection in the event of an accident.

^{*1} Good Agricultural Practice (GAP): This is a series of improvement activities for accurate implementation, recording, inspection and evaluation during each process of agricultural production. The producers themselves clarify the control points that should be addressed in agricultural production and thoroughly implement improvement activities. This is aimed at raising food safety, conserving the environment and assuring workers' safety

^{*2} Hazard Analysis and Critical Control Point (HACCP): This is a management system for continuously monitoring and recording particularly important processes upon analyzing hazards such as contamination by microorganisms and infiltration of metals during each stage ranging from the procurement of raw materials to the end product.

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 smoothly and quickly elucidate the causes of the problem and collect products.



Protecting against Animal and Plant Diseases and Pests

There is a growing risk of the introduction of animal infectious diseases and plant pests into Japan due to outbreaks of Foot and Mouth Disease and other serious animal diseases in neighboring countries as well as the diversification of imported plant

varieties and exporting countries. To prevent the introduction of these diseases and pests into Japan from overseas, MAFF is conducting animal and plant quarantines.

◆ 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.



“Visualization” of Food Safety and Other Initiatives



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.

Communicating Appropriate Information to Consumers

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. When improper labeling is confirmed, we take strict measures that include providing instruction and making public announcements to promote proper food labeling.

Japan Agricultural Standards (JAS) System

JAS mark

Attached to food and forestry products that meet general JAS requirements for quality, including grade and ingredients.



Specific JAS mark

Attached to food products that meet specific JAS requirements for special production areas and manufacturing methods, including ripening and floor feeding.



Organic JAS mark

Attached to agricultural products that meet organic JAS requirements. An indication of “organic XX” can be added to these products.



Production information disclosed JAS mark

Attached to beef and pork products for which production information such as feeding details is disclosed.



Products bearing the JAS mark possess 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.



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.

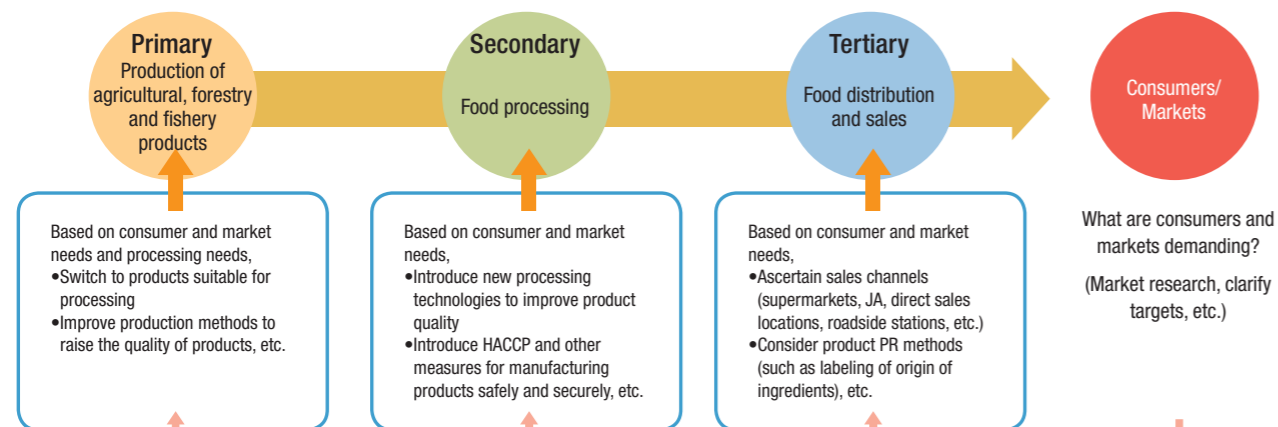
Integration of Primary, Secondary and Tertiary Industries to Realize Sixth Industrialization (1 x 2 x 3 = 6)

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 agricultural, 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



Case Examples of Efforts toward Sixth Industrialization

Processing and Overseas Sales of Pesticide-Free Konnyaku Potatoes

Green Leaf Co., Ltd. (Showa Village, Gunma Prefecture)

This company is involved in the processing of agricultural crops and production of konnyaku potatoes that meet organic JAS requirements and is collaborating with trading companies in undertaking surveys of food needs overseas and is exporting the konnyaku product “Shirataki Pasta” and other products.



Manufacturing and Selling Bread Made Mainly from Brown Rice

Genkiya Genmai Co., Ltd. (Ozu Town, Kumamoto Prefecture)

This company introduced new manufacturing processing technologies and is manufacturing bread made mainly from brown rice at the nearly same cost as wheat for creating new demand for rice. Because this bread can also respond to wheat allergies, it is expected to be sold for school lunch programs and to hospitals.



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.



●Benefits of Geographical Indication (GI) Protection System

System Structure	Benefits of Geographical Indication
Register Geographical Indication as well as producing area and quality standard.	The government provides an “endorsement” of quality of products.
Allow products that abide by quality standards to use Geographical Indication and affix the GI mark.	Only those products with guaranteed quality are introduced to markets. The GI mark helps differentiate the products.
The injunction against illicit use is made by the government.	Enable producers to protect their own brands without legal expenses.
Producers can use Geographical Indication by taking part in registered groups.	All producers in a region can use Geographical Indication as a regional common property.



Cooperation among the Medical, Welfare, Food and Agricultural Sectors

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.

In recent years there has been an increase in cases in which welfare facilities and companies are engaging in agricultural activities while serving as venues for the rehabilitation of elderly persons and for the job training and employment of persons with disabilities.

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 beans and employs persons with disabilities with wages that exceed minimum wage. In cooperation with other companies, it sells primary processed products as ingredients for daily dishes and other items and is also establishing stable sales routes.



Agriculture Business Model in Which Persons with Disabilities Play Leading Roles

Heart Land Co., Ltd. (Sennan City, Osaka Prefecture)

Heart Land engages in the hydroponic cultivation of salad spinach and accepts a total of around 5,000 persons with disabilities from other welfare facilities. Besides expanding sales routes, Heart Land undertakes the sale and processing of higher-value-added food that includes the development of a retort soup that uses salad spinach.



Creating Smiles with New Care Foods



“Smile Care Foods” (nickname) takes a new perspective to clarify what was previously called “Care Foods.” “Smile Care Foods” is classified into seven types that not only include food for people with difficulty chewing and swallowing but also food that helps prevent undernourishment. The “How to choose ‘Smile care Foods’ (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 on abandoned cultivated land and that can lead to the vitalization of hilly and mountainous areas. Accordingly, MAFF is collaborating 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.



Angelica acutiloba



Further Spreading the Appeal of Japanese Food to the World

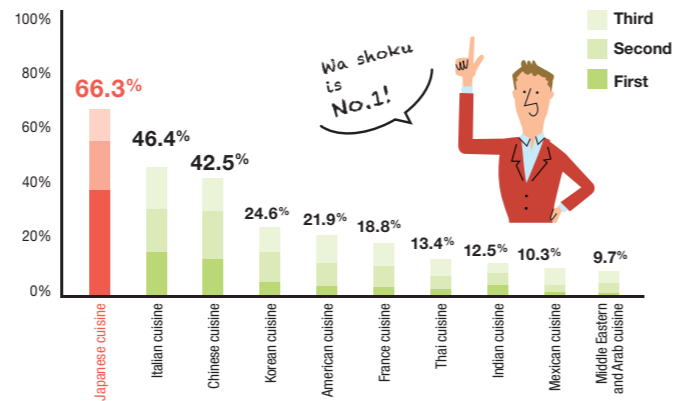
MAFF has been making such efforts as promoting sales led by ministers, transmitting information via overseas media, organizing Japanese-food related events and improving the export environment in order to convey accurate information to the world about the appeal of Japanese food and food culture while 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 89,000 (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.

Ranking of Favorite Foreign Cuisine



Multiple responses possible. Number of responses as a percentage of number of respondents. Cuisine from one's own country was excluded from the choices.
Source: Prepared based on JETRO's Survey on Japanese Foods Directed at Overseas Consumers

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.



Emphasizing the appeal of Wagyu beef at a Wagyu promotion

Overseas Exhibitions

Events and exhibitions are held overseas under the theme "Japan's Food Culture and Tourism" to introduce Japanese food and traditional crafts and to sell products.



Hong Kong Food Expo held in Hong Kong

Washoku Cuisine Competition

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



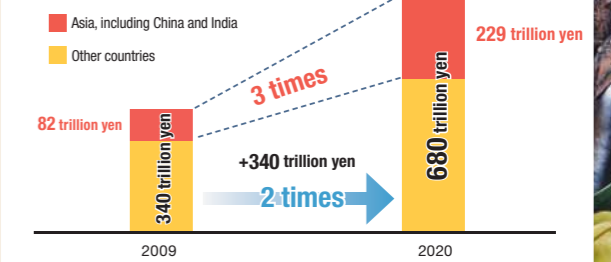
Washoku World Challenge 2015



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.

World Food Market



Source: Prepared by MAFF based on estimates from AT Kearney.
Notes: 1. Converted at the rate of 94.6 yen/US\$1, which was the average exchange rate for 2009.
2. Asia, which includes China and India, is the sum total for China, Hong Kong, Korea, India and ASEAN (Indonesia, Singapore and Thailand).
3. The size of the market does not include Japan.



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

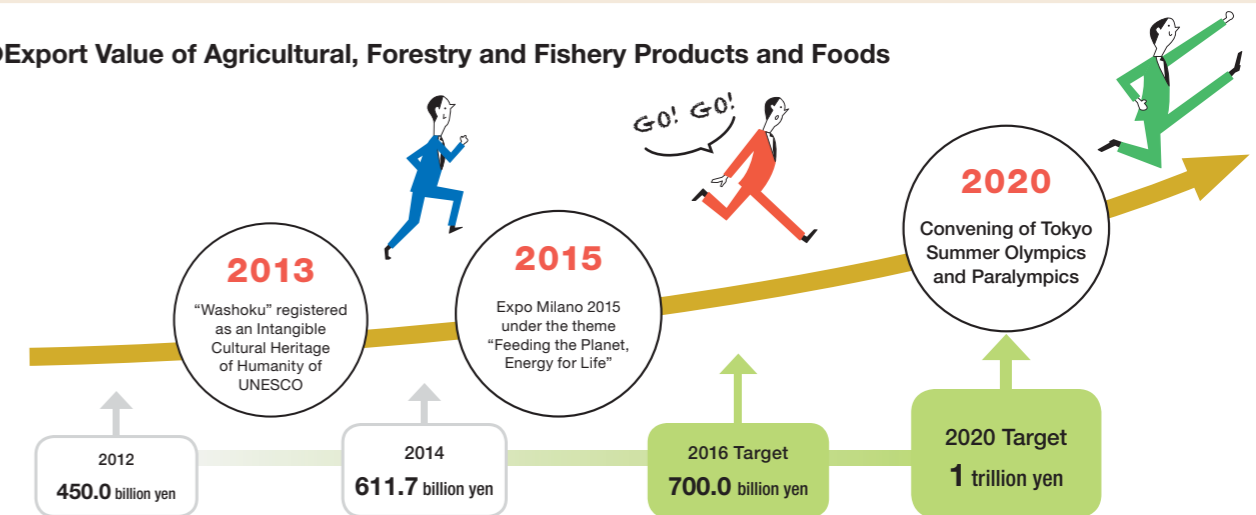
The "FBI Strategy" was formulated as an initiative for responding to this demand and raising Japan's presence in world food markets.

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 From 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.

Export Value of Agricultural, Forestry and Fishery Products and Foods



Expo Milano 2015

Expo Milano 2015 was held in Milan, Italy, from May 1 to October 31, 2015. With the theme of "Feeding the Planet, Energy for Life," Expo Milano 2015 featured the participation of 148 countries and regions as well as various international institutions. The expo also focused on food-related issues shared by humankind as well as on solutions and contribution measures while also introducing diverse food cultures. Japan operated the Japan Pavilion under the theme "Harmonious Diversity" and introduced Japanese foods and food culture. Through an array of exhibits, the Japan Pavilion

also introduced various efforts in the field of agriculture, forestry and fisheries as well as in food; extensive knowledge and skills found throughout Japanese food; and the ways Japanese food culture can contribute to solutions to global-scale issues such as food-related problems. The Japan Pavilion included an authentic Japanese restaurant and food court offering an abundant variety of cuisines and enabled visitors to experience the diversity and techniques of Japanese food as well as Japanese hospitality.

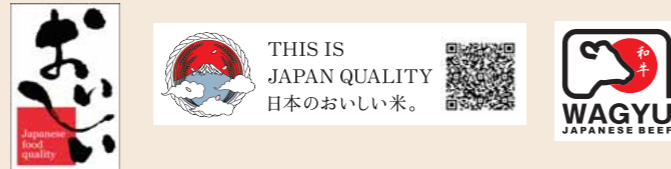


Nationwide Export Promotion

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.

Various logos convey to overseas consumers the appeal of the high quality and tastiness of Japanese products.



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.



Minister of Ministry of Agriculture, Forestry and Fishery in talks with the Turkish Minister of Food, Agriculture and Livestock

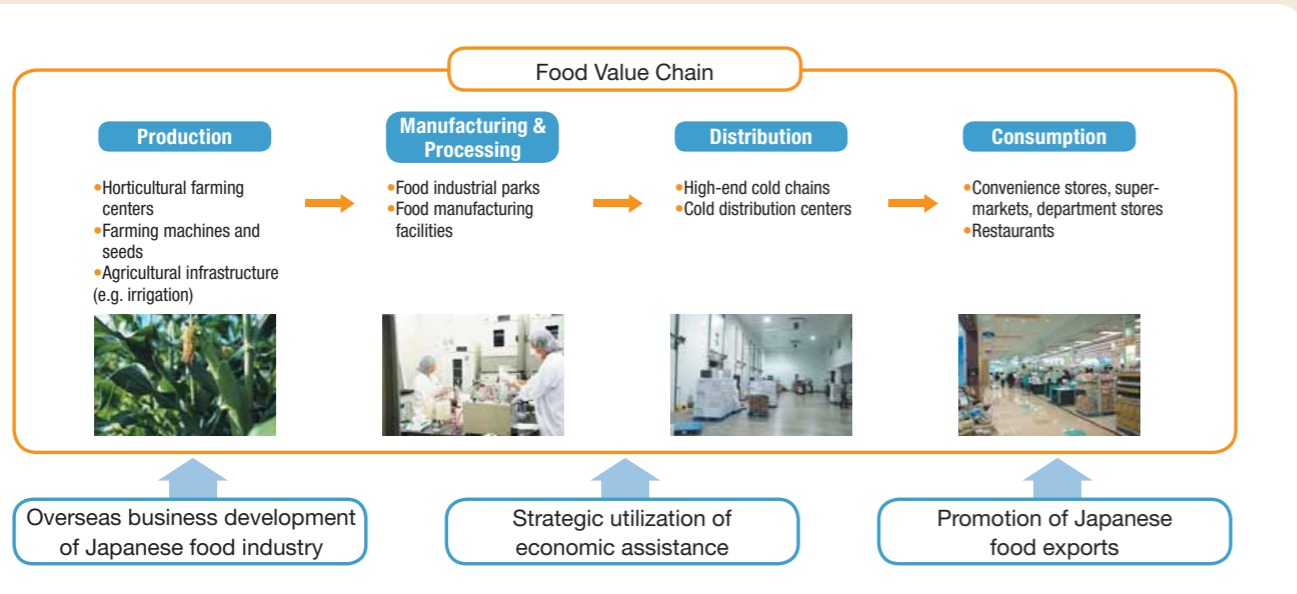
Developing "Food Value Chains"

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.

*Cold chain: Distribution network that transports products maintaining low temperatures.



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 of authentic Japanese dishes and activities 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.



Sake cellar tour that provides experience in sake brewing (Hokkaido)

◆ 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.



Crested ibis feeding in paddy field (Sado Region)



Terraced paddy fields connecting Satoumi and Satoyama

Designated Regions in Japan (As of October 2015)

Region	Agricultural System
Sado region, Niigata Prefecture	Sado's Satoyama in harmony with crested ibis
Noto region, Ishikawa Prefecture	Noto's Satoyama and Satoumi
Kakegawa peripheral region, Shizuoka Prefecture	Traditional tea-grass integrated system in Shizuoka (local name: Chagusaba)
Aso region, Kumamoto Prefecture	Managing Aso Grasslands for Sustainable Agriculture
Kunisaki Peninsula Usa region, Oita Prefecture	Kunisaki Peninsula Usa Integrated Forestry, Agriculture and Fisheries System



Increasing Motivated and Competent Farmers

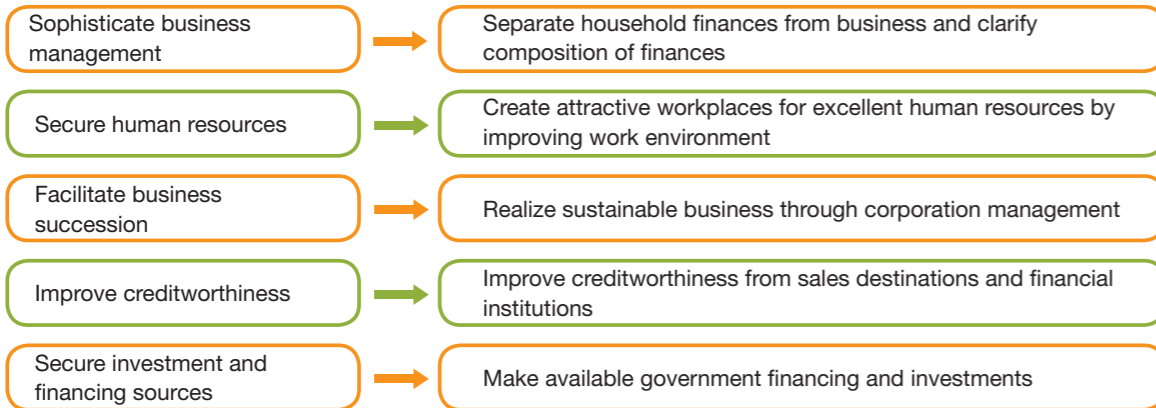
To ensure progressive agriculture amid economic and social changes, which include a declining population and the advance of globalization and information communications technology (ICT), it is essential to increase the number of motivated and competent farmers who can respond to consumer needs with originality and ingenuity free from the traditional mindset as well as by making decisions independently.

Incorporation of Agricultural Management Entities and Enrichment of Management Practices

Promoting the incorporation of agricultural management entities is an effective means of increasing the number of business-minded farmers. This approach offers numerous benefits: sophisticating 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.

●Main benefits of incorporation of agricultural management entities



Initiatives for Advanced Incorporated Entities

The Funakata Farm Group in Yamaguchi Prefecture has built a new management model for the sixth industrialization as a corporate group undertaking agricultural production (primary industry), processing (secondary industry) and guest farms (tertiary industry). Group founder Kazuaki Sakamoto established the Funakata Farm Group in 1969 to undertake dairy farming. In 1972 he reorganized the group as Funakata 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 Hill ATO (guest farm for learning (1987)) and Milk Town (manufacture and sale of milk and dairy products (1990)). To coordinate overall operations within the group, he established the Green Wind Cooperative in 1990. In 2003, Mr. Sakamoto established Hana no Umi (Flower Ocean) for undertaking large-scale systemized production of vegetable 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. Sakamoto 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

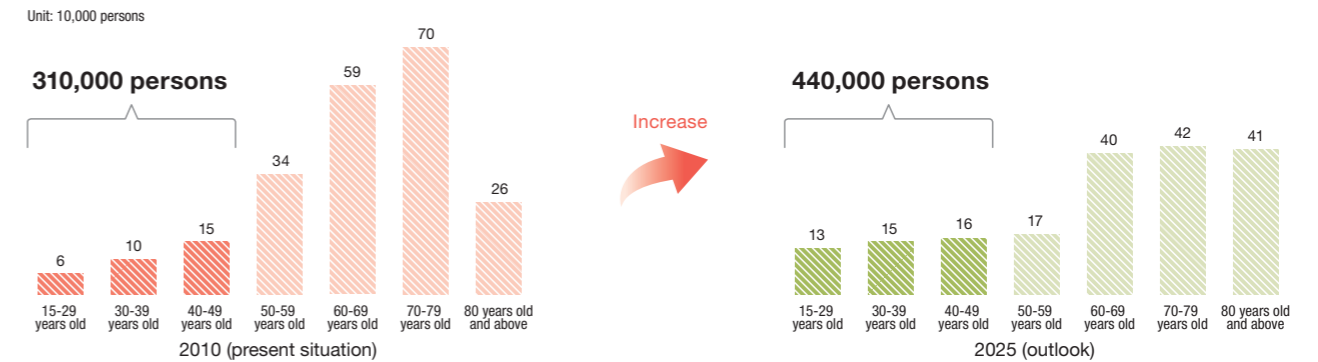
The average age of persons engaged in agriculture is around 66. By age bracket, the population of farmers is conspicuously unbalanced, with persons aged 60 and above accounting for around 70% of farmers while persons aged 40 and below make up just about 10% of all farmers. In view of this situation, 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.

Starting as Farmers in Gifu Prefecture



Masaki and Yuko Kato are newly started as farmers who moved from Shiga Prefecture to Gifu Prefecture. This couple received the grant for young farmers (management start-up type) that supports securing income immediately after starting farming operations.

●Estimation of the Number of Farmers (2025)



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.

Reference: 1. Prepared from MAFF's Census of Agriculture and Forestry (reclassified compilation) and the Ministry of Internal Affairs and Communications' National Census (questionnaire information independently compiled by MAFF).
2. Outlook: Increases and decreases every five years for each age group (as well as for the newly added number of persons in the youngest age group (15-19 years old)) assumes numbers trend at the same rate as between 2005 and 2010 while the number of farmers aged 40 and below doubles.

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.

Nougyou-Joshi Project

The Nougyou-Joshi Project is an initiative that links the production capabilities, wisdom and market powers that women farmers have cultivated in their daily lives, work and involvement with nature with company technologies, know-how and ideas for the development of new products and services and information. This project collaborates with companies and organizations inside and outside the agricultural business and conveys information from various perspectives about women who play active roles in farming.



Nougyou-Joshi Project logo

Examples of Product Development Incorporating the Ideas of Women Farmers



Mid-year gifts that use products of women farmers



Nougyou-Joshi Pack for light trucks that incorporated the opinions of women farmers



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.



Farmland Consolidation for Business-Minded Farmers

◆ For Establishing a Strong Agricultural Structure

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.

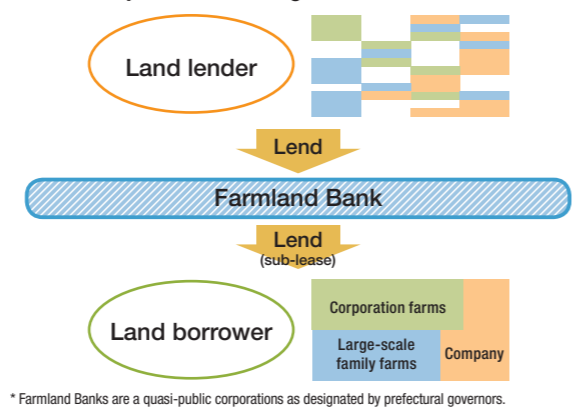
●State of Devastated Agricultural Land (objective survey and estimate by municipalities)

Unit: 10,000 ha

Year	Total area of devastated agricultural land	Reusable devastated agricultural land (A category)	Devastated agricultural land expected to be difficult to reuse (B category)
2013	27.3	13.8	13.5

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.



Before using the Farmland Bank (land concentration rate for core farmers: 40%)



After using the Farmland Bank (land concentration rate for core farmers: 80%)

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.



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.

●Integrated Farmland Consolidation for the Entire Region

Before consolidation



Small-plot farmland, narrow farm roads, poor drainage

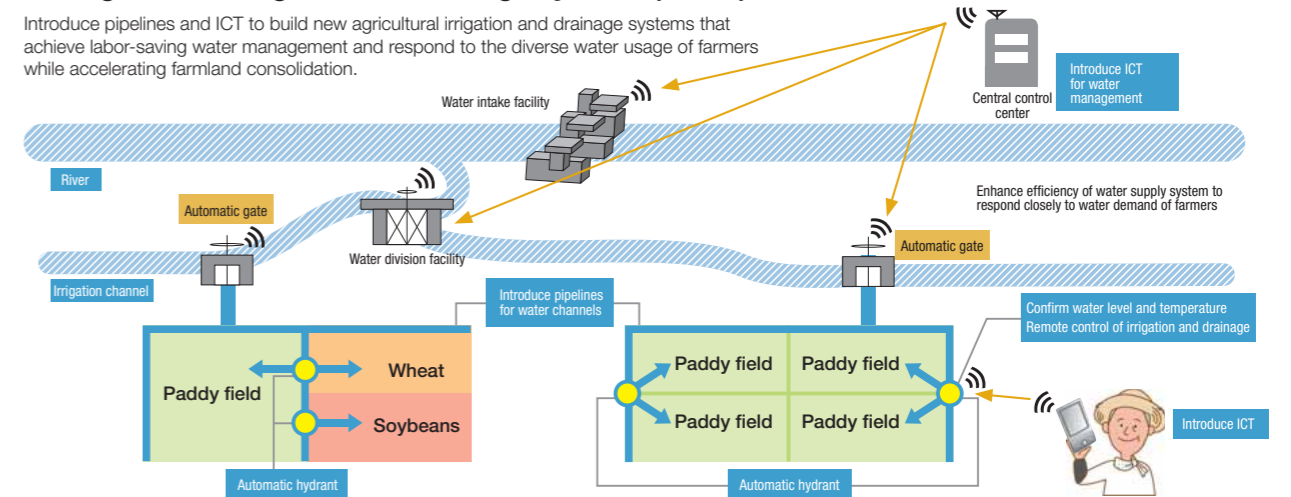
After consolidation



Large-plot farmland, improved farm roads, improved water and drainage canals

●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.

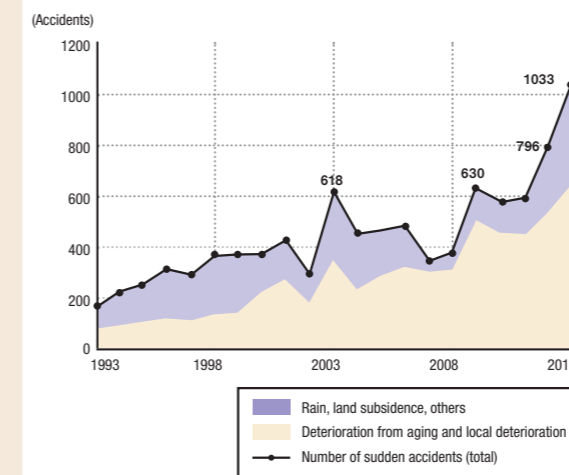


◆ Extending the Life of Facilities and Improving Resilience against Natural Disasters

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 fulfil 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.

●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



Flood damage in rural areas due to torrential rains



Implement water drainage measures



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, flowers and livestock products indispensable in Japanese food culture, various support measures are being implemented for expanding production and consumption.

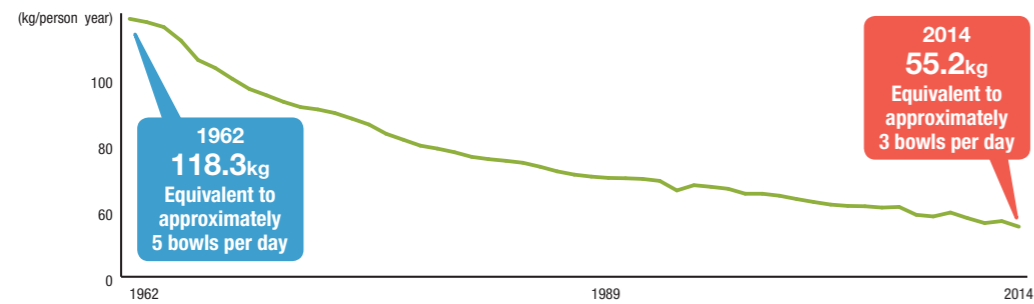
Full Utilization of Paddy Fields with Crops Demanded

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 demanded such as rice for feed, wheat and soybeans.

● Per Capita Volume of Rice Consumption (annually)



Source: "Food Balance Sheets" by MAFF

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.



School lunch program



Meeting arranged for buyers/suppliers of industrial-use rice

Branding of Livestock Products Utilizing Rice for Feed

The creation of distinctive livestock products that utilize rice for feed is being watched with interest. For example, the yolk color of eggs of hens fed on a lot of rice is lighter. For swine fed on a lot of rice, oleic acid in fat increases and linoleic acid decreases and pork quality improves. Utilizing these characteristics, efforts for branding of livestock products are being made in various regions. Livestock products produced using rice for feed are supported by consumers because these products use domestic feed, enhance flavor and make effective use of paddy fields.



Egg from a hen fed on a lot of rice for feed

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.



JA Tonamino departed from operations centered on rice cultivation and shifted to agricultural products demanded. It built a mechanized integrated system and set up the Hokuriku region's first dedicated onion low-temperature drying, sorting and storage facility for stable shipments.

◆ 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.



Shine Muscat

This yellow-green grape is a new variety registered in 2006. This grape has a muscat aroma and high sugar content and can be eaten together with the skin. Cultivation is not difficult and extends across a wide area from Tohoku to Kyushu. Land area under cultivation has increased approximately eightfold over the past four years.

Photograph provided by NARO Institute of Fruit Tree Science

◆ 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.

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

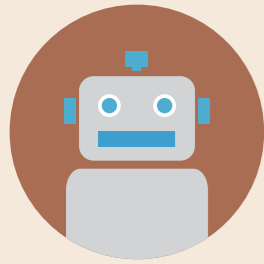


Regional flowering nurturing activities

Providing 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.





Opening the Way to the Future through Cutting-Edge Technologies

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).

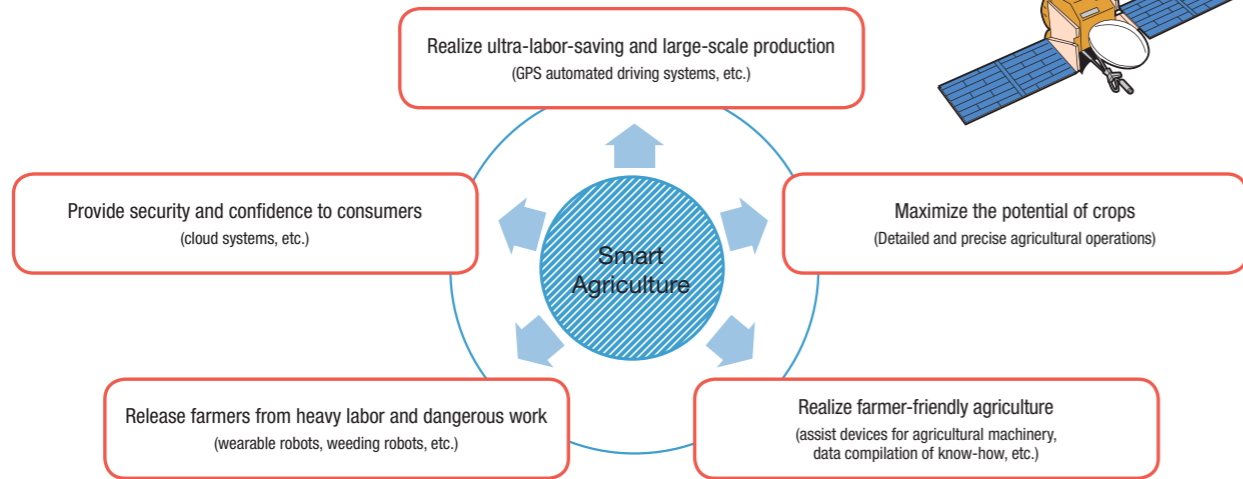
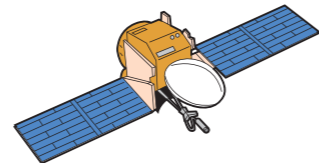
Toward the Realization of Smart Agriculture

“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



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



Collaborative work system that simultaneously performs two work operations with a driverless tractor and a tractor with a driver



Wearable robot lessening the burden of unloading work



Automated robot puts food in lunch boxes

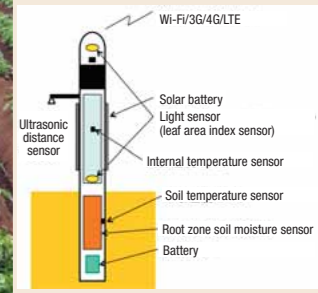
Utilization of ICT

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.



Potato cultivation management using ICT



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.

●Model of Next-Generation Greenhouse Horticulture



Functional Agricultural, Forestry and Fishery Products

MAFF is undertaking research and development on agricultural, forestry and fishery products possessing functional ingredients. In research carried out to the present, we have discovered that *O*-methylated catechin contained in “Benifuuki” green tea is effective in alleviating the effects of eye and nose discomfort caused by house dust, etc., and that beta-cryptoxanthin contained in satsuma mandarin oranges is effective in maintaining the health of bones.



Benifuuki green tea containing *O*-Methylated catechin



Living with and Fully Utilizing Nature

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.

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
 Estimates for agriculture and forestry in November 2001 and estimates for fisheries and fishing community in August 2004.
 * 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

Conservation of National Land and Prevention of Disasters



Forests



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



Paddy fields



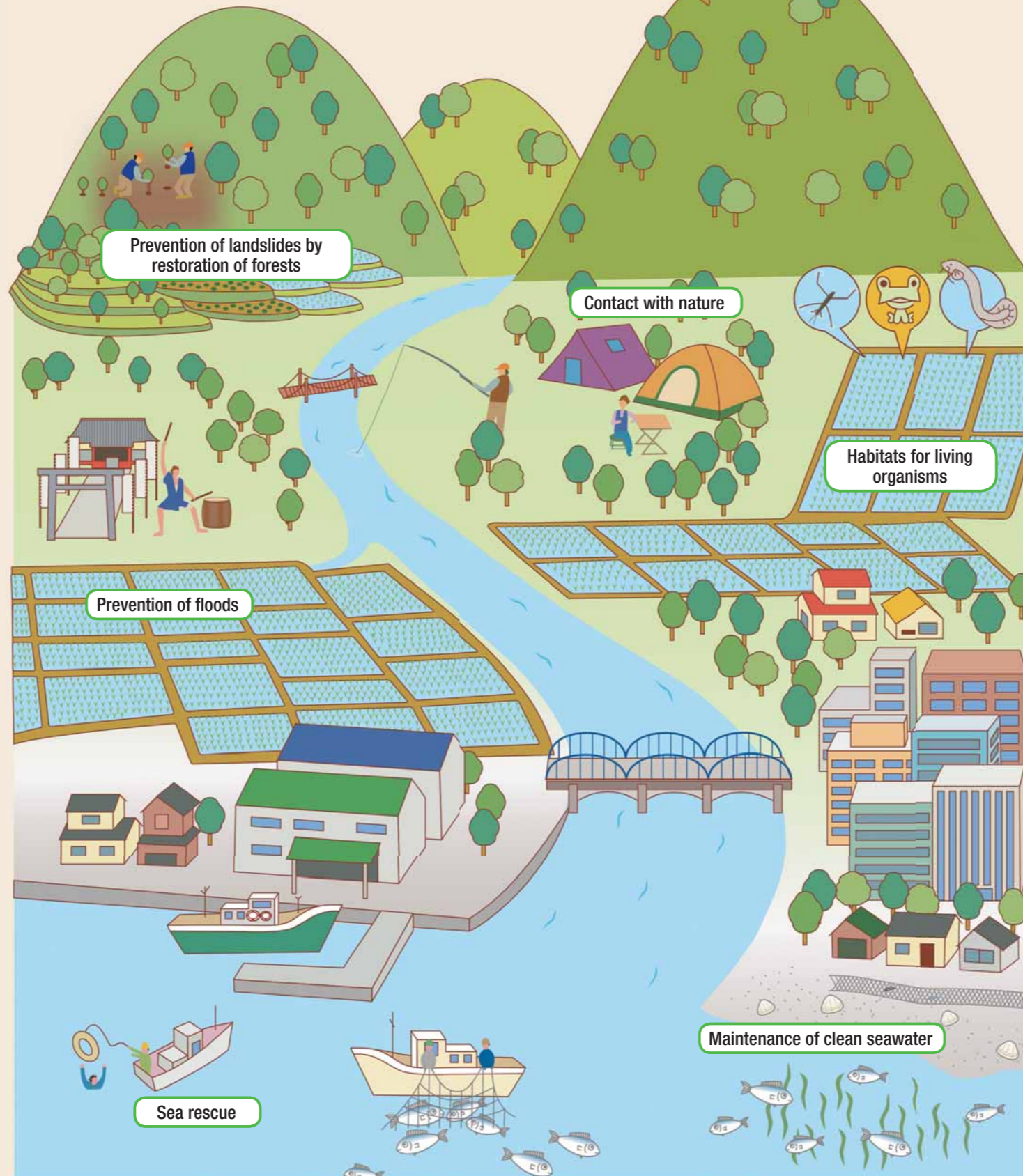
- Paddy fields have functions to prevent floods and submergence in surrounding areas by temporarily storing rainwater.
- Water stored in paddy fields permeates soil and gradually becomes groundwater, and helps ensure stable river flows.



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.
- Forests have functions to prevent global warming by absorbing CO₂, one of the major causes of global warming.



Forests



Agricultural fields



- Agricultural fields and reservoirs provide habitats for diverse living organisms.



Seas



- 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.

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.

◆ Rural Areas (Satochi-Satoyama)



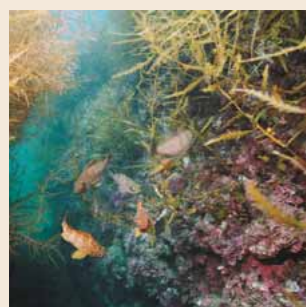
Rice paddies do more than just produce rice; they nurture frogs and loaches as well as storks that feed on these living creatures. For this reason, it is important to develop rice paddies in a way that is kind to biodiversity such as through sustainable agriculture and establishing fish passages.

◆ 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.

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.



People in rural areas manage rural resources on a community basis, including the removal of mud from channels and mowing along farm roads.



Farmers take steps to preserve the rural environment through such means as monitoring aquatic life in channels with children.



Farmers and local inhabitants cooperate to conserve rural resources such as channels and farm roads.

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.

MAFF encourages coexistence and exchanges between urban and rural areas through connection with tourism, education and welfare in order to give a boost to efforts by 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.



Mottainai Project to increase consumption of local fish
Hagi City, Yamaguchi Prefecture



Increasing employment through promotion of local-consumption-of-local-produce restaurants
Ohnan Town, Shimane Prefecture



Revitalizing a community by activities together with an increase in new residents moving into the community from other regions
Nachikatsuura Town, Wakayama Prefecture



Experiencing traditional lifestyles and activities in farming and fishing villages by urban people
Shibetsu Town, Hokkaido Prefecture



Revitalizing abandoned farmland and promoting agricultural production in collaboration with companies and volunteers countrywide
Hokuto City, Yamanashi Prefecture



Conserving and restoring sustainable human-influenced woodland and natural environment
Tsukuba City, Ibaraki Prefecture

Measures against Damage Caused by Wildlife

In recent years, damage to crops and so forth by wildlife such as deer and boars 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 initiatives 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 momentum toward the utilization of captured wildlife for human consumption.



A radish field that has been spoiled by monkeys



A planted forest where the bark has been damaged by deer



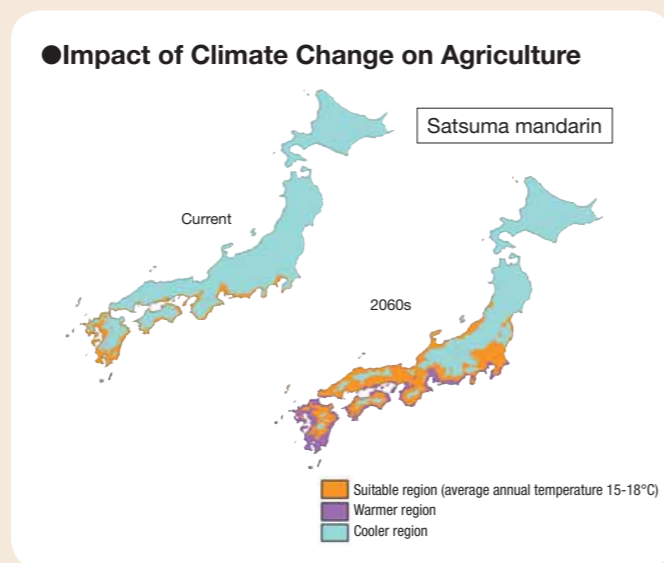
Toward the Creation of a Sustainable Society

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



Rind puffing in a mandarin (photo at left) Provided by NARO Institute of Fruit Tree Science



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.



Green manure cropping



Using compost on fields



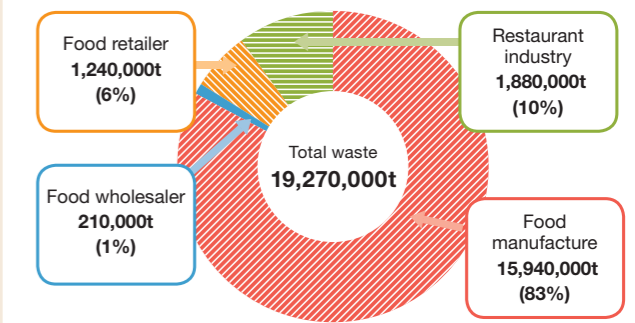
Organic farming



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.

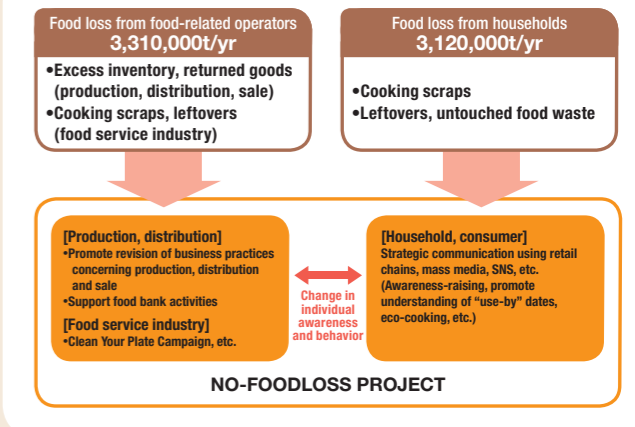
●Amount of Food Waste Generated by Food-Related Operators (FY2013)



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.



Solar power generation



Wind power generation



Small hydroelectric power generation



Biomass as a Local Organic Resource

Biomass refers to organic resources such as wood, food waste, domestic animal waste and sewage sludge available in a wide array of applications, including power generation, heat, fuel and materials. Through the use of biomass, MAFF aims to create local industry and employment, strengthen energy supply and create biomass industrialized areas that help form a recycling-oriented society.



Biogas power generation facility



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

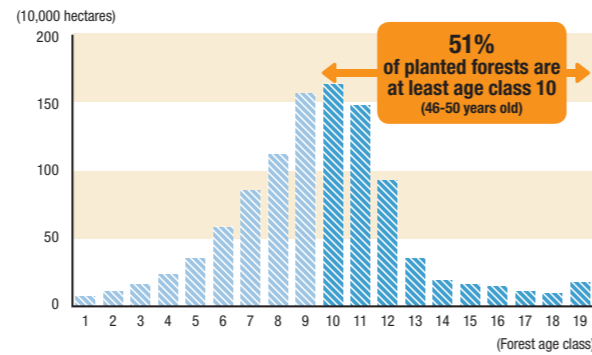
◆ Increase in Planted Forests Mainly

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.

●Area of Planted Forests by Age Class



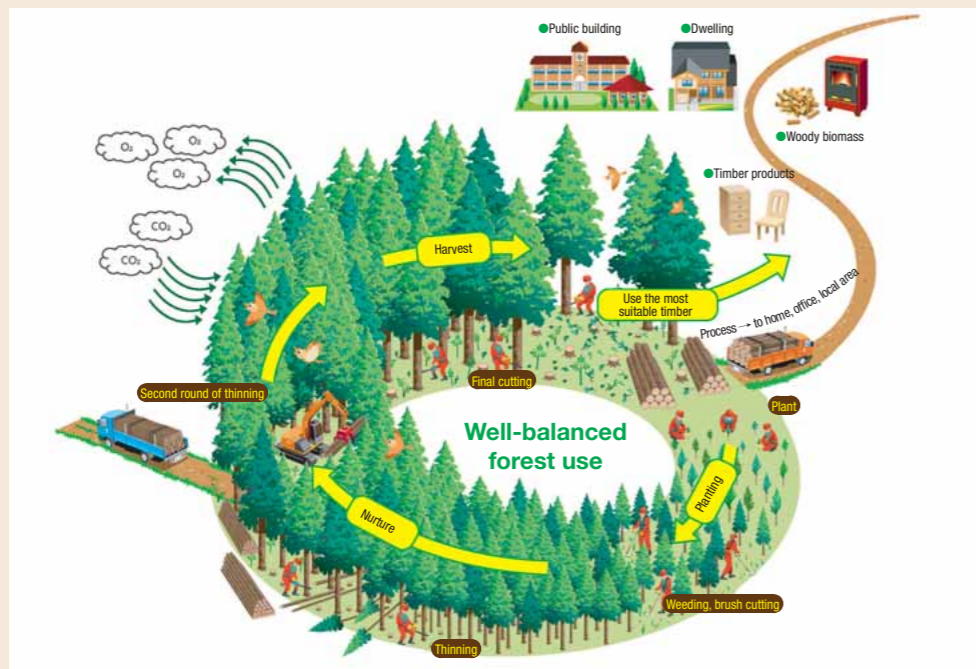
Source: Forestry Agency's "Annual Report on Forest and Forestry in Japan Fiscal Year 2012" (as of March 31, 2012)
 Notes 1: Each forest age class (planted forests) covers a span of 5 years. Class 1 = 1-5 years with the year the seedlings are planted given as year 1.
 2: Forest area covered by forest planning based on Article 5 and Article 7 of the Forest Act



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.

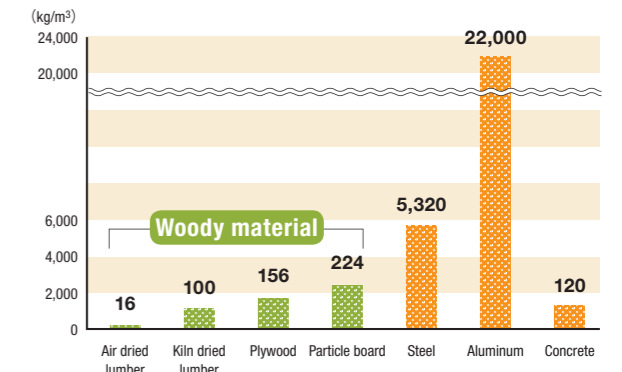
◆ Supply of Domestic Logs for Plywood Materials Growing Significantly

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 conifer 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

●Carbon Emissions per Cubic Meter during Production of Each Material



Source: Forestry Agency's Carbon Research Project
 Note: Carbon emissions are calculated by converting the energy required during production to amount of fossil fuel consumed.



Akita International University Library (Akita City, Akita Prefecture)



School building (Shinshiro City, Aichi Prefecture)



Osaka Mokuzai Nakagai Kaikan (Osaka City, Osaka Prefecture): Fire-resistant structure
 Photo: T. HAHAKURA



Wood recycling logo



Development and Introduction of New Timber Products

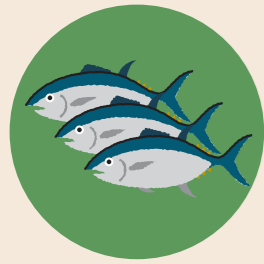
CLT (Cross Laminated Timber) refers to thick-type panels made from lumber boards that are glued together, alternating the direction of their fibers for each layer. This provides the benefits of exceptional thermal insulation, energy-saving effects and earthquake resistance in addition to short construction 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.



CLT made of cedar



A three-story company dormitory using CLT (Otoyo Town, Kochi Prefecture)



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.

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.



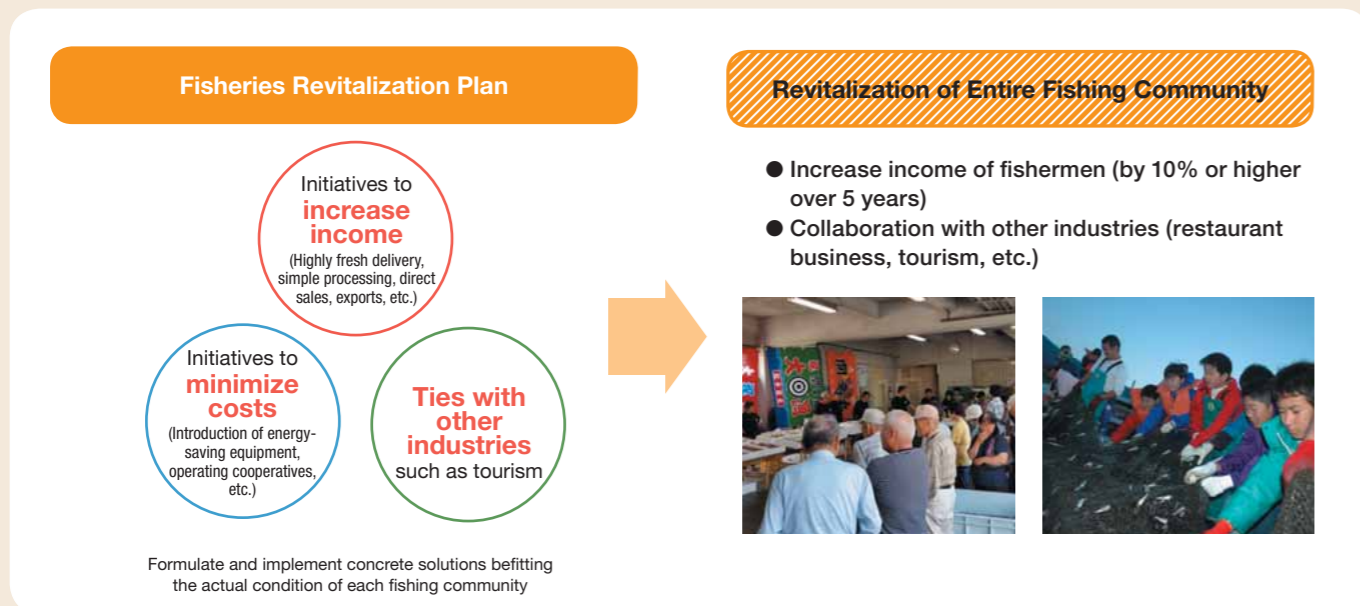
Fish haul compliant with the Total Allowable Catch (TAC) system

Conference with regional fisheries management organizations

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.



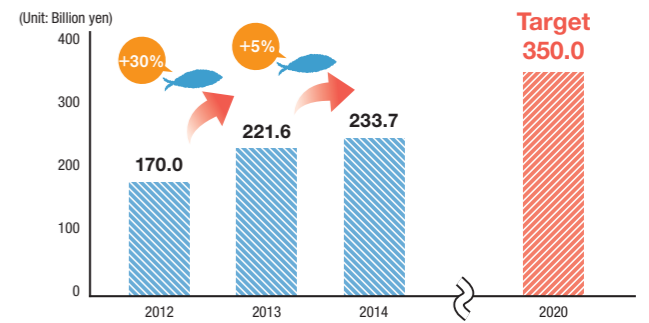
Promoting Export and Domestic Consumption of Fishery Products

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.

* Hazard Analysis and Critical Control Point (HACCP): This is a management system for continuously monitoring and recording particularly important processes upon analyzing hazards such as contamination by microorganisms and infiltration of metals during each stage ranging from the procurement of raw materials to the end product.

Export Value of Fishery Products



Fast Fish Project

The "Fast Fish" project aims to promote fishery products that are simple, tasty and easy to prepare. The project will make easy-to-cook seafood products more available even for households where people feel they are too busy to cook. The goal of the project is to help revitalize the fisheries industry by boosting fishery products consumption nationwide. Awareness-building "Fast Fish" logos can also be applied to products which are featured in this project.



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)

Government ships (ships owned by the Fisheries Agency):	7
Chartered ships (private ships):	37
Total:	44

Hakuryu maru fisheries inspection ship operated by the Fisheries Agency

Results of Inspections (cases; 2014)

On-board inspections:	81
Seizure of fishing equipment used in poaching:	20
Seizure of vessel:	14 (South Korea 7, China 5, Taiwan 2)

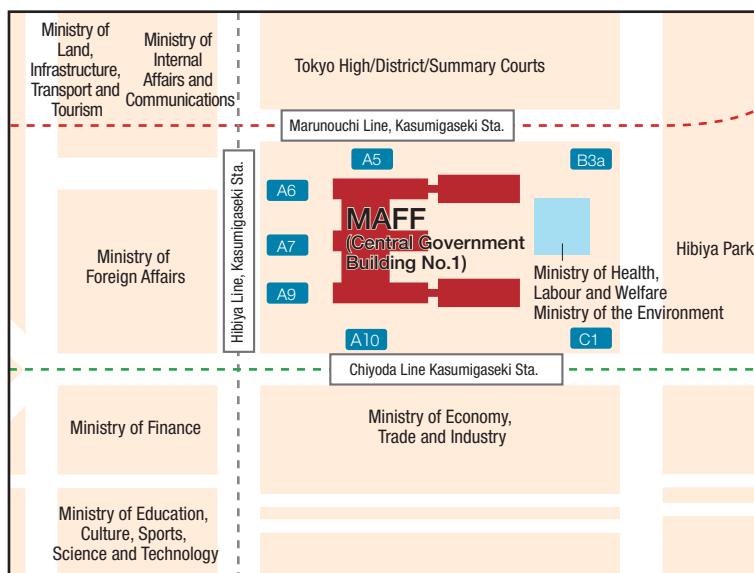
Fisheries inspection officers head to an on-board inspection of a foreign fishing boat

Organization of MAFF

(As of October 2015)

Ministry of Agriculture, Forestry and Fisheries





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