

**FY2015 Annual Report
on Food, Agriculture and Rural Areas
in Japan**

Summary

Ministry of Agriculture, Forestry and Fisheries

Japan, 2016

The FY2015 Annual Report on food, agriculture and rural areas in Japan is based on Items 1 and 2 of Article 14 of the Food, Agriculture and Rural Areas Basic Act (Law No. 106 of 1999).

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- Numbers in figures and tables are rounded in principle and may not add up to the total.
 - Maps in this report may not necessarily indicate Japan's territories comprehensively.

Acronyms and abbreviations

CAA Consumer Affairs Agency

EU European Union

FAO Food and Agriculture Organization of the United Nations

IFAD International Fund for Agricultural Development

MAFF Ministry of Agriculture, Forestry and Fisheries

METI Ministry of Economy, Trade and Industry

MHLW Ministry of Health, Labour and Welfare

MIC Ministry of Internal Affairs and Communications

MOF Ministry of Finance

R&D Research and Development

US The United States

WFP World Food Programme

Symbols

ha Hectare

a Are

kg Kilogram

Foreword

The Annual Report on Food, Agriculture and Rural Areas in Japan is a report on food, agriculture and rural area trends that is annually submitted to the Diet based on the Food, Agriculture and Rural Areas Basic Act.

The Trans-Pacific Partnership (TPP) negotiations in which Japan participated from July 2013 reached an agreement in principle in October 2015. TPP participating countries signed the agreement in February 2016. While the TPP has been expected to bring about various benefits for livelihoods and business operations in Japan, there exists the voice of concerns. Therefore, we must carefully explain the details of the TPP agreement and implement appropriate policy measures to keep sustainable production of agricultural, forestry and fisheries products, as well as develop the agriculture-forestry-fisheries sector into a powerful growth industry.

In this respect, this report starts with a special topic, “TPP agreements and relevant policies,” describing the background of TPP negotiations, outline of the agreement, impact assessment of TPP, the comprehensive TPP-related policy outline and other TPP matters.

This report describes trends in food, agriculture and rural areas in three chapters: (1) efforts for securing stable food supply; (2) efforts for creating strong, proactive agriculture; and (3) utilizing local resources to promote rural areas. For the first time, each chapter establishes priority themes to emphasize items that this report should communicate to the public. Specifically, this report takes up “trend of food self-sufficiency potential,” “promoting the export of agricultural, forestry and fisheries products, and expanding Japanese food and dietary culture overseas,” “agriculture structure changes” and “regional revitalization trend.”

Another chapter describes the restoration/reconstruction from the Great East Japan Earthquake, which struck five years ago.

This report also describes the implementation and effects of major policy measures to contribute to the steady promotion of measures based on the Basic Plan for Food, Agriculture and Rural Areas as decided by the Cabinet in March 2015.

While this report covers a wide range of topics, we have tried to introduce not only statistical data analyses and comments but also specific efforts taken throughout Japan for developing agriculture into a growth industry as much as possible in a bid to make this report easy to understand

We hope that this report will help people to understand Japan’s food, agriculture and rural areas.

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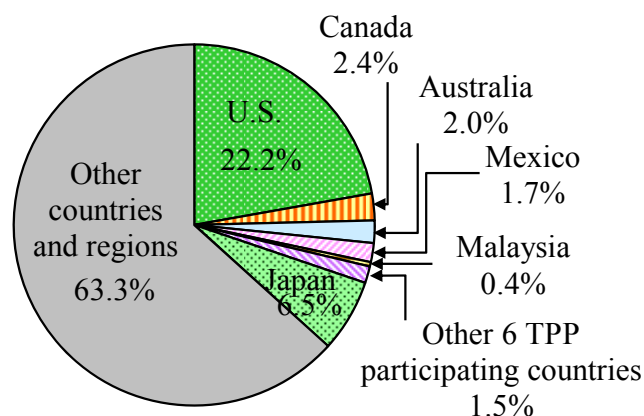
TPP agreement and relevant policies

Twelve countries participated in Trans-Pacific Partnership (TPP) negotiations, reaching an agreement in principle in October 2015. The government will carefully explain details of the agreement and expand farm management stabilization measures for agriculture, forestry and fisheries to pursue proactive agriculture, forestry and fisheries, based on the outline of comprehensive TPP-related policy principles as decided in November 2015.

1 Background

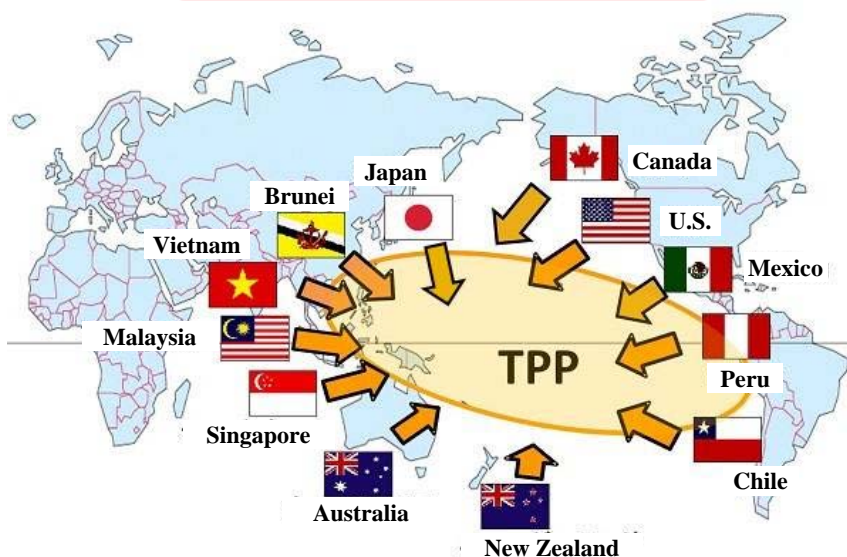
- Trans-Pacific Partnership (TPP) negotiations started in March 2010 among eight countries -- Singapore, New Zealand, Chile, Brunei, the United States, Australia, Peru and Vietnam. Later, Malaysia, Mexico, Canada and Japan joined the negotiations, bringing the total number of negotiation participants to 12. Those countries' gross domestic products combined account for as much as about 40% of global GDP.
- An agreement in principle was reached at a ministerial meeting of TPP negotiations in Atlanta, USA, on October 5, 2015. The agreement was signed in Auckland, New Zealand, on February 4, 2016.

TPP participating countries' shares of global GDP (2013)



Source: IMF, "World Economic Outlook Database April 2015"

TPP participating countries



Source: TPP Task Force, Cabinet Secretariat

2 Outline of the agreement

- Backed by the resolutions adopted by the Agriculture, Forestry and Fisheries Committees of the Houses of Representatives and Councillors, Japan negotiated tenaciously to prevent any negative impact on domestic agriculture, forestry and fisheries industries, and rural areas. As a result, Japan won the maintenance of the state trading system and existing out-of-quota tariffs, the creation of tariff quotas and safeguards, longer tariff reduction staging and other effective measures mainly for five sensitive products.
- As for tariffs on Japanese exports, Japan also won the elimination of tariffs on priority products (beef, rice, fisheries products, tea, etc.) for expanding agricultural, forestry and fisheries products and food exports.

Details of agreement on 5 sensitive products

Product	Summary of agreement
Rice	The existing state trading system is maintained along with the existing out-of-quota tariff rate (341 yen per kilogram). In addition to the existing WTO quotas, country specific tariff rate quotas using SBS mechanism (simultaneous buy and sell tender system) are established against the United States and Australia.
Wheat and barley	The existing state trading system is maintained along with the existing out-of-quota tariff rate (55 yen per kilogram for wheat). In addition to the existing WTO quotas, country specific tariff rate quotas and TPP wide tariff rate quotas using SBS mechanism are established. The markup is set to be reduced by 45% by the ninth year.
Sweetening resource crops	The existing sugar price adjustment system is maintained for raw sugar and refined sugar. TPP wide tariff rate quotas are set for each sugar preparation. For starch, the existing sugar price adjustment system is maintained
Beef and pork	A tariff on beef is set to gradually be lowered from 38.5% at present to 9%. The elimination of the beef tariff is avoided, with a tariff reduction period being as long as 16 years. For pork, the existing differential tariff system is maintained and a tariff reduction period as long as 10 years is established. Moreover for beef and pork, the safeguard measure is established during the tariff reduction periods.
Dairy products	For skimmed milk powder and butter, the existing state trading system is maintained. New import quotas for the TPP participating countries are established. For whey which is likely to compete with skimmed milk powder, a tariff reduction period as long as 21 years is established along with the safeguard measure. Depending on the type of cheese, tariff treatment is different. Some are maintained as is. Some have a long tariff reduction period and the others have a conditional tariff-free quota established.

Source: MAFF

3 Decision on the comprehensive TPP-related policy principles

- TPP negotiations took five and half years to reach an agreement in principle, producing a giant economic bloc covering more than 800 million people in the 12 participating countries. While the TPP is expected to bring about various benefits for livelihood and business operations in Japan, there also have been concerns over the TPP. Therefore, the government must provide careful explanations on details of the TPP agreement and take comprehensive measures for allowing agricultural, forestry and fisheries products to be maintained and for developing strong agriculture, forestry and fisheries into growth industries.
- To this end, the TPP Task Force at its meeting in November 2015 decided the comprehensive TPP-related policy principles.
- Funds are earmarked in the FY 2015 supplementary budget for measures required to be urgently implemented.

Comprehensive TPP-related policy principles

- The economic partnership covers an economic bloc with an unprecedented size accounting for about 40% (3,100 trillion yen) of global GDP, producing a giant market with 800 million people. The TPP is a trump card for Abenomics.
- These Policy Principles clarify goals of policies necessary to link the effects of the TPP to Japan's economic and regional revitalization as well as policy to sweep away the concerns about the TPP's impacts among Japanese people.
- Major policies given in the principles, including existing ones, will be continuously checked and reviewed. Specific details of strategies to further develop agriculture, forestry and fisheries into growth industries, and policies to further promote overseas operations, business expansion and productivity improvement for Japanese industries will be prepared by the autumn of 2016.
- In conjunction with the principles, the government will try to provide the people with accurate, thorough explanations and information and will expend all possible means to sweep away insecurity and concerns about the TPP's impacts.

New big exporter

<Promotion of the TPP's utilization>

1 Establishing a system to thoroughly provide information and counseling

- Raise awareness and proliferate information about the TPP
- Establish a counseling system for second-tier, medium and small-sized companies

2 Supporting the development of new markets and the building of global value chains

- Drastically strengthen the mechanism to provide comprehensive support to second-tier, medium- and small-sized companies to help them develop new markets ("New big exporter" consortium)
- Promote the export of contents, services, technologies, etc.
- Strategically promote the export of agricultural, forestry and fisheries products, as well as foodstuffs
- Promote the export of infrastructure systems
- Improve business environments in countries where Japanese companies operate

Global hub

(International core base for trade and investment)

<Building a "robust economy" through the TPP >

1 Measures to ensure that TPP-stimulated expansion of trade and investment leads to a rejuvenated domestic economy

- Ensure higher productivity through innovation and collaborations between companies or industries
- Promote foreign investment in Japan

2 Boosting the "earning power" of regions

- Spread regional information
- Bring together and brand regional resources

< Food safety, intellectual property >

- Enhance a monitoring and guidance system for food imports, labelling of origin of ingredients
- Take measures required for patents, trademarks and copyrights
- Facilitate the utilization of copyrighted works

New agriculture policy age

<Agriculture, forestry and fisheries>

1 Develop agriculture, forestry and fisheries into proactive industries (via measures to sharpen competitiveness)

- Nurture business persons with an excellent business sense to shoulder the next generation
- Promote innovation in internationally competitive production areas
- Promote a comprehensive project to enhance the profitability of the livestock raising and dairy sector
- Explore demand frontiers for the export of high-quality agricultural, forestry and fisheries products
- Enhance the international competitiveness of plywood and lumber
- Switch to sustainable, highly profitable business arrangements
- Enhance cooperation with consumers, reform regulations and the tax system

2 Make preparations to ensure stable business management and supply (five key products)

- Rice (Review government-stockpiled rice)
- Wheat (Steadily implement farming income stabilization measures)
- Beef/pork, dairy products (Stabilize and expand the livestock raising and dairy sector)
- Sweetening resources crops (Subject the crops to adjustment money)

Source: TPP Task Force, Cabinet Secretariat

4 Economic impact analysis

- On December 24, 2015, the government released a macroeconomic impact analysis of TPP on Japan. The analysis includes the comprehensive economic efforts of tariff elimination, trade and investment promotion, cost reductions based on non-tariff-related measures, as well as the effect of increased productivity resulting from stimulated trade and investment.

Economic Impact Analysis

Assessment for agriculture, forestry and fisheries

While the price decline caused by tariff reduction/elimination will decrease, production and farming family income will be continuously secured by domestic measures such as enhancement of competitiveness by both cost reduction and quality improvement and farm income stabilization. As a result, domestic production will be maintained.

Agricultural, forestry and fisheries production value decline: about 130–210 billion yen

Impact on the food self-sufficiency rate (base year: FY2014):

39% in calories, 64% in production value

↓ Reflecting the assesment

39% in calories, 64% in production value

Analysis results

GDP change:

+2.59% (+13.6 trillion JPY)

*Real GDP at 524.7 trillion JPY (FY2014)

Labor supply change:

+1.25% (+795,000 workers)

*Labor supply: 65.9 million

*Number of employees: 63.6 million (FY2014)

Source: TPP Task Force, Cabinet Secretariat

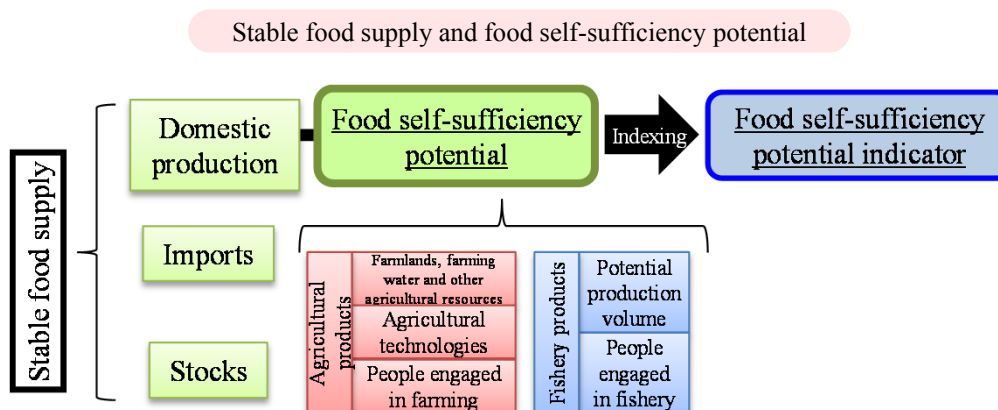
Priority theme 1

Food self-sufficiency potential trends

The Basic Plan for Food, Agriculture and Rural Areas decided by the Cabinet in March 2015 came up with the food self-sufficiency potential indicator for the first time. Japan's food self-sufficiency potential has been declining.

The food self-sufficiency potential indicates Japan's food production potential

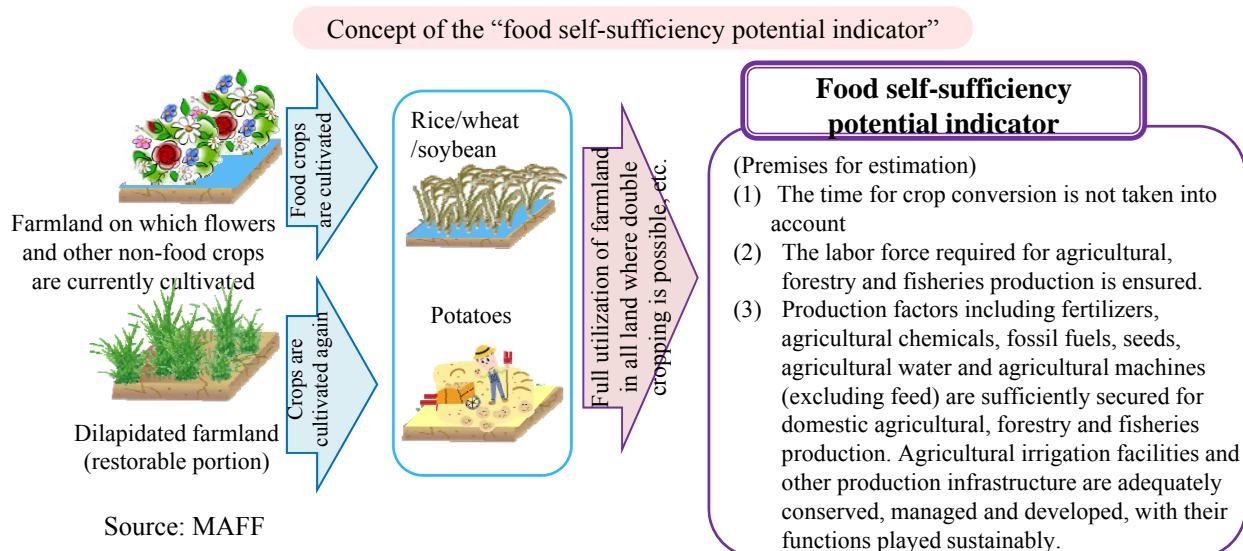
The food self-sufficiency potential indicates the food production potential of Japan's agriculture, forestry and fisheries sectors. The components of the food self-sufficiency potential for agricultural production are farmlands, farming water and other agricultural resources, agricultural technologies, and people engaged in farming. The components of the food self-sufficiency potential for fisheries production are potential production volume and people engaged in fishery.



Source: MAFF

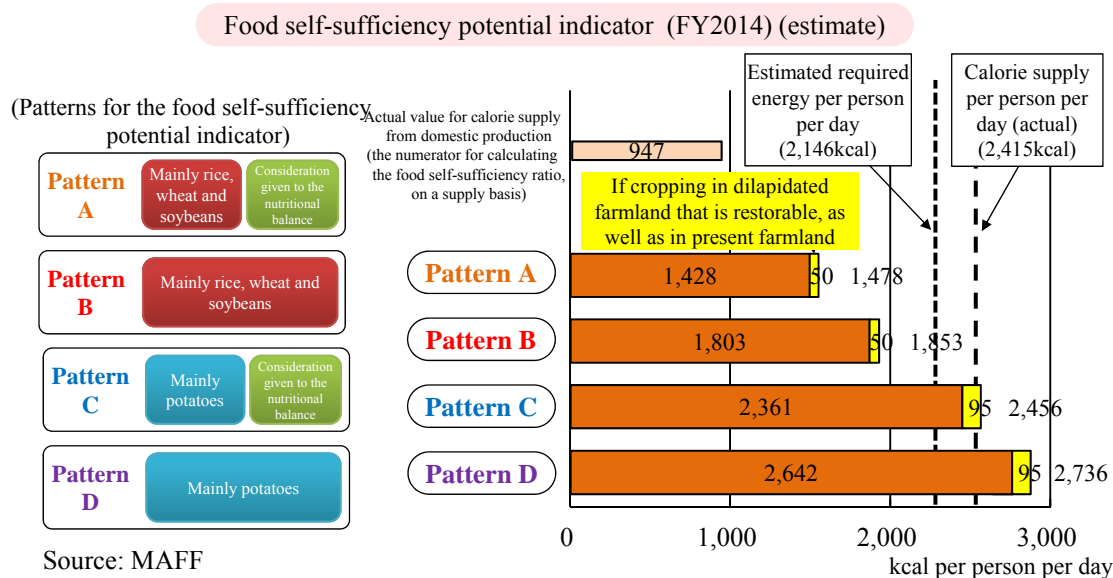
Concept of the “food self-sufficiency potential indicator”

The food self-sufficiency potential indicator shows the amount of calories that could be supplied through the maximum utilization of production potential in the Japanese agriculture, forestry and fisheries sectors. It is estimated under the premise that mainly rice and potatoes are cultivated on all farmland, including that on which flowers and other non-food farm products are cultivated. Additionally, the estimation is based on some hypothetical premises: (1) the time for crop conversion is not taken into account and (2) the labor force required for agricultural, forestry and fisheries production is ensured.



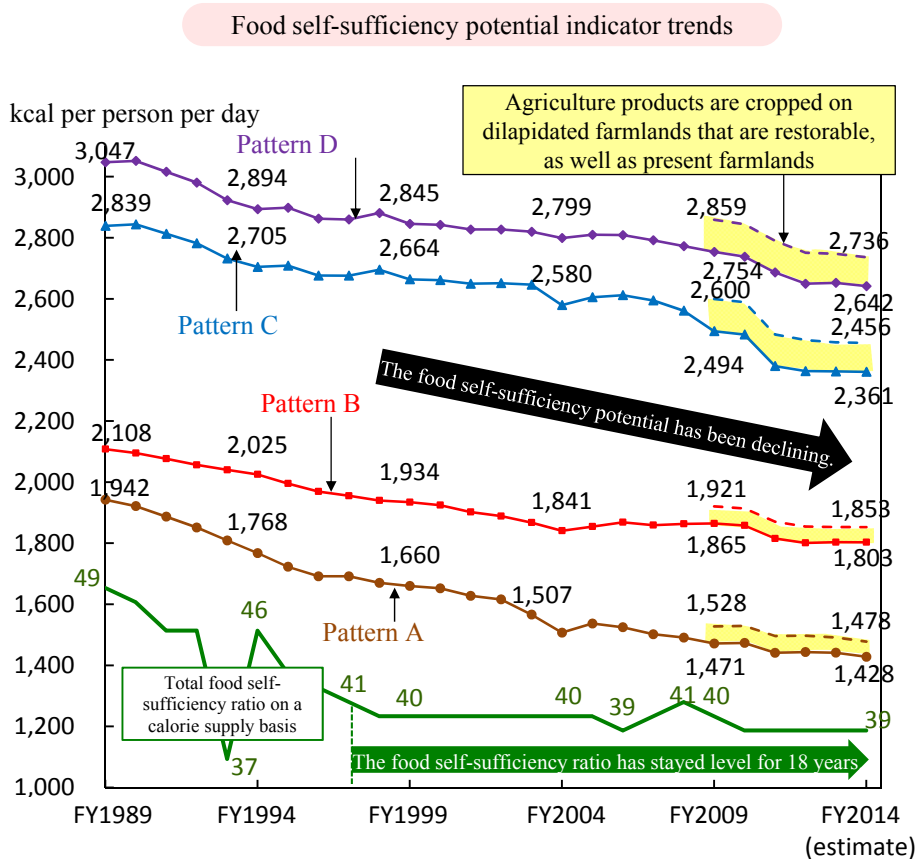
The food self-sufficiency potential indicator has been declining

The food self-sufficiency indicator is estimated for four food production patterns. In the pattern where mainly potatoes are cultivated, the indicator exceeds the estimated required energy amount. In the more realistic pattern where mainly rice, wheat and soybeans are cultivated, the indicator slips far below the estimated required energy amount.



While the food self-sufficiency ratio has stayed level, the food self-sufficiency potential has been on a decline in recent years, raising concerns about the future food supply in Japan.

MAFF provides the food self-sufficiency potential indicator to contribute to discussions on food security with a view to promote policy measures securing stable food supply.



Priority theme 2

Export promotion and overseas dissemination of Japanese food and food culture

Japan's agricultural, forestry and fisheries products and food exports totaled 745.1 billion yen, posting a record high for the three consecutive years. At the Expo Milan 2015, the Japanese pavilion showed the attractiveness of Japanese food and food culture to many visitors to the pavilion. Registration under the Geographical Indication protection system has started to certify products utilizing regional characteristics.

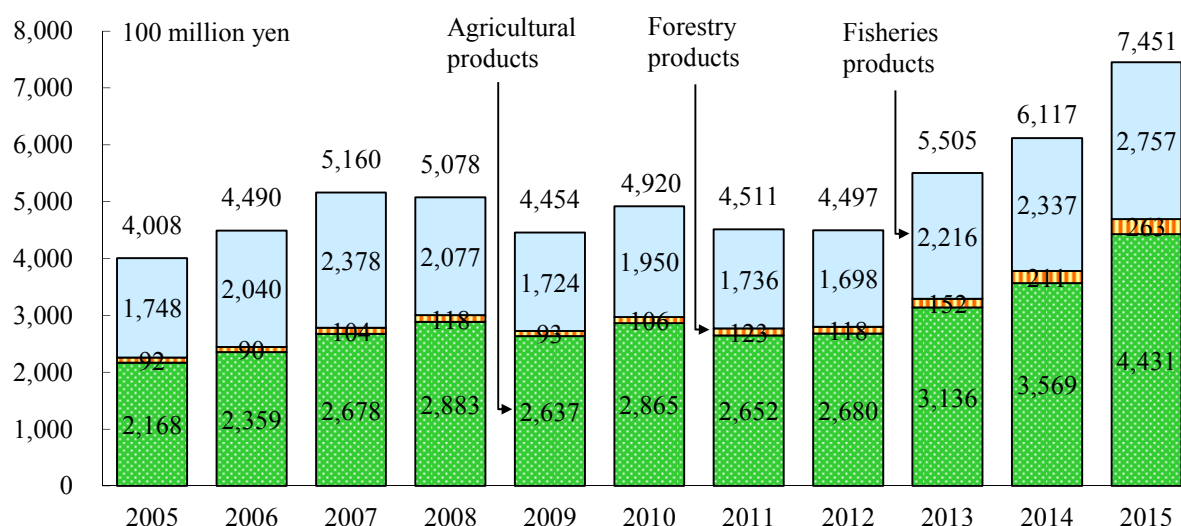
Promoting the export of agricultural, forestry and fisheries products and foods

To realize the target of expanding agricultural, forestry and fisheries products and foods exports to 1 trillion yen in 2020, MAFF has drafted export strategies for each country and product. To steadily implement the strategies, product-by-product export organizations have been established under the Executive Committee for Export Promotion Strategy to promote the export of these products on an "all-Japan" basis. Product-by-product export expansion plans are prepared to annually check and update specific initiatives.

Based on discussions at the Executive Committee for Export Promotion Strategy, MAFF prioritizes and implements initiatives to resolve export challenges including import regulations involving radioactive materials, animal and plant quarantine talks and food safety regulations.

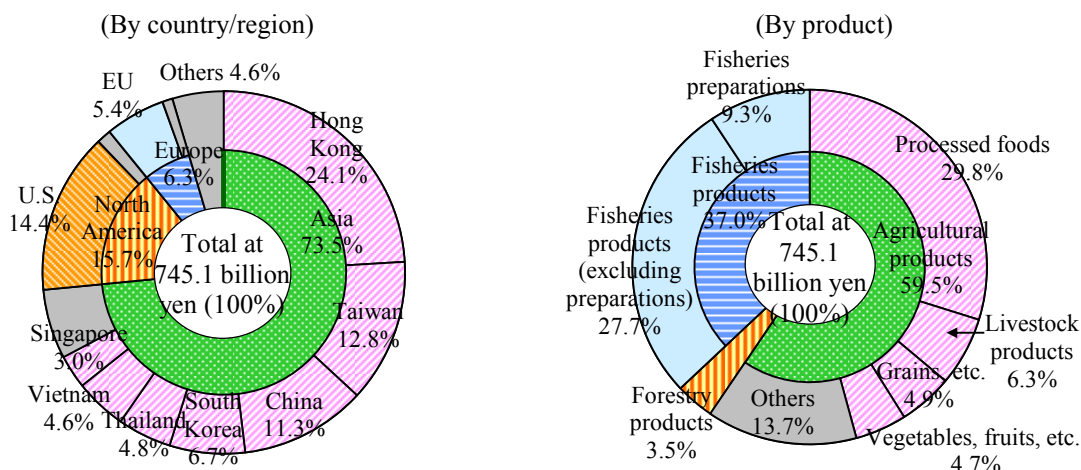
As exports have steadily increased, MAFF will promote initiatives to achieve the 1 trillion yen target ahead of schedule.

Trends of agriculture, forestry and fisheries products and foods exports



Source: Prepared by MAFF, based on MOF, "Trade Statistics"

Breakdown of exports by country/region and product (2015)



Source: Prepared by MAFF, based on MOF, "Trade Statistics"

Strategic creation, exploitation and protection of intellectual property

It is important to exploit and protect intellectual property to cope with counterfeit products in overseas markets. Registration under the protected geographical indication system has started. Registered products under the system can be differentiated by the GI mark.

Products registered for geographical indication (At the end of March 2016)

- ・あおもりカシス、*Aomori Cassis*
- ・但馬牛、*Tajima Gyu*, *Tajima Beef*
- ・神戸ビーフ、*KOBE BEEF*
- ・夕張メロン、*YUBARI MELON*
- ・八女伝統本玉露、*Traditional Authentic YAME GYOKURO*
- ・江戸崎かぼちゃ、*Edosaki Kabocha*

- ・鹿児島壺造り黒酢、*Kagoshima no Tsubozukuri Kurozu*
- ・くまもと県産い草、*KUMAMOTO-RUSH*
- ・くまもと県産い畳表、*KUMAMOTO-RUSH-MATS*
- ・伊予生糸、*Iyo Raw Silk*
- ・鳥取砂丘らっきょう / ふくべ砂丘らっきょう、*Tottori Sakyu Rakkyou / Fukube Sakyu Rakkyou*
- ・三輪素麺、*Miwa Somen*



GI mark

Note: *Italic characters* is a reference.

Overseas expansion of Japanese food culture

It is important to disseminate the attractiveness of Japanese food culture overseas to increase Japan's share of the growing world food market.

At the Milan Expo between May and October 2015, the Japanese pavilion campaigned for Japanese food culture, highly evaluated from around the world. The number of overseas Japanese food restaurants totaled 89,000 in July 2015, increasing about 1.6-fold in two years.

Communicating Japanese food culture at the Expo Milan 2015

The Expo Milan 2015 lasted for 184 days in Milan, Italy, under the theme of "Feeding the Planet, Energy for Life." A total of 145 countries and three international organizations participated in the expo, with the number of visitors reaching 21.5 million. Under the theme of "Harmonious Diversity," the Japanese pavilion emphasized that initiatives, wisdom and skills involving the Japanese agriculture, forestry and fisheries sector, and Japanese food culture would contribute to resolving common challenges for all humanity. Events and the food court introduced Japanese food culture.

The Japanese pavilion became one of the most popular pavilions at the expo, attracting 2.28 million visitors, accounting for a little more than 10% of the total visitors to the expo. The Japanese pavilion won the gold prize for best exhibition design, obtaining high ratings.



Japanese pavilion on Japan Day (July 11)



Tonkatsu (deep-fried pork cutlet) served at the food court

1 Objectives and present situation of Basic Plan for Food, Agriculture and Rural Areas

- In March 2015, the government decided the Basic Plan for Food, Agriculture and Rural Areas as a guideline for promoting agriculture and rural area policy reforms and national initiatives. The plan set the food self-sufficiency ratio target of 45% on a calorie supply basis and 75% on a production value basis for FY2025.
- The overall food self-sufficiency ratio on a calorie supply basis in FY2014 remained unchanged from 39% in the previous year. While domestic wheat and soybean output increased, demand for rice, the domestic production of which can fully meet demand, declined after a last-minute rise just before a consumption tax increase, leading rice's share of total calorie supply to drop.
- The overall food self-sufficiency ratio on a production value basis in FY2014 dropped by one percentage point to 64% as a decline in prices of domestically produced rice was coupled with a rise in seafood import costs under the yen's depreciation.

Food self-sufficiency ratio targets

(Unit: %)

	FY2013	FY2014	FY2025 Target
Food self-sufficiency ratio on a calorie supply basis	39	39	45
Food self-sufficiency ratio on a production value basis	65	64	73
Feed self-sufficiency ratio	26	27	40

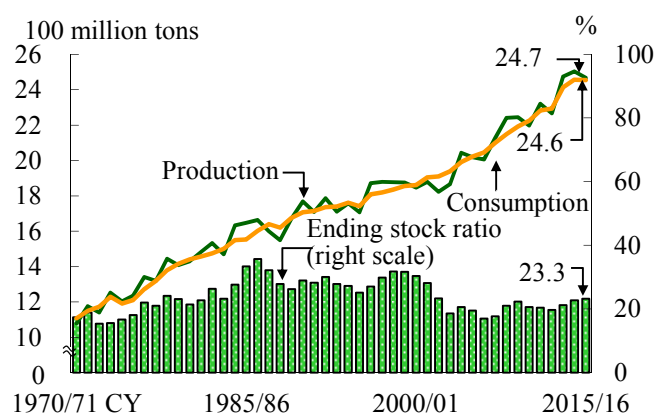
Source: MAFF

2 Global food supply and demand, and efforts for establishing food security

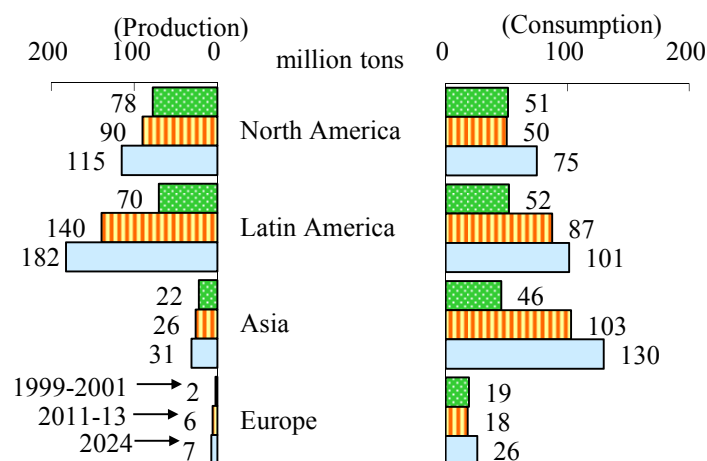
(1) Global food supply/demand trends

- Global grain production in the 2015-16 CY is expected to decline by 40 million tons or 1.4% from the previous year to 2.47 billion tons due to falls in corn and rice output. Meanwhile, consumption is projected to level off at 2.46 billion tons.
- Global grain and soybean production and consumption are projected to increase in the future. Particularly, Asian soybean consumption is expected to expand, while production in North America and Latin America for soybean supply to Asia is predicted to grow.

Grain production, consumption, ending stock ratio



Global soybean production and consumption trends and outlook



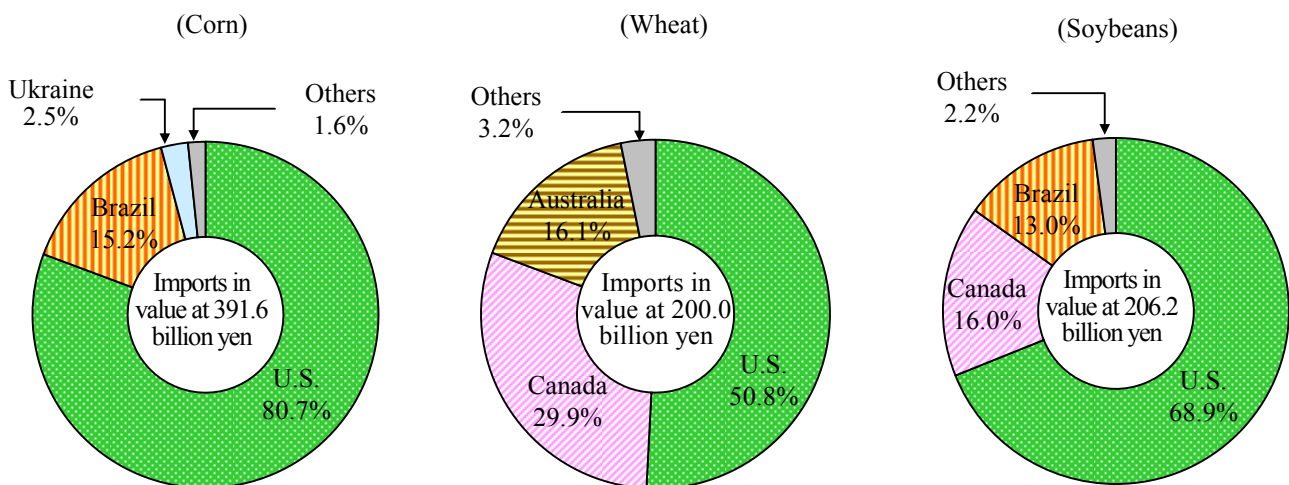
Source: Prepared by MAFF based on U.S. Department of Agriculture, "PS&D," "World Agricultural Supply and Demand Estimates" (as of March 2016)

Source: Policy Research Institute, MAFF "Global Food Supply/Demand Outlook for 2024 -- Projection with Global Food Supply/Demand Model"

(2) Efforts for establishing food security

- In preparation for unforeseeable events including food import disruptions, the government regularly analyzes and assesses the impacts of risks involving a stable food supply. Based on the results of such analysis and assessment, the government considers and implements measures to mitigate the impacts. It also promotes the development of specific procedures for responding to unforeseeable events and shares them with relevant parties.
- A breakdown of Japan's major farm products imports in value by country indicates that the top three exporters account for more than 90% of the total for each product. Japan thus depends heavily on a limited number of specific countries for farm imports.

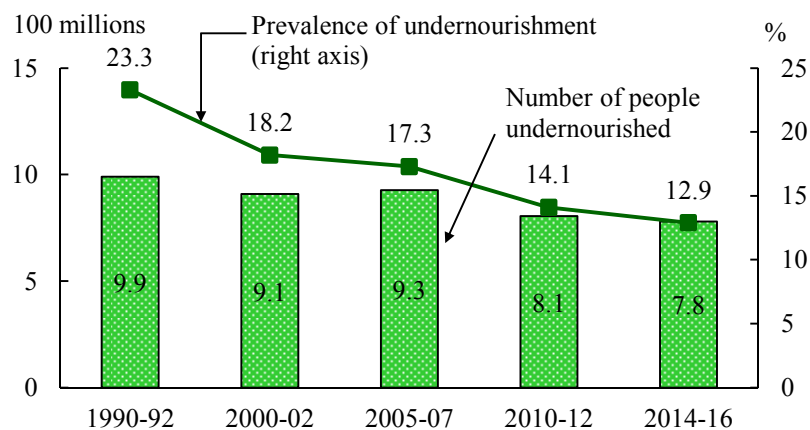
Breakdown of Japan's major farm products imports in value by country (2015)



Source: Prepared by MAFF, based on MOF, "Trade Statistics"

- The share of undernourished people in the population (the prevalence of undernourishment) in developing regions, though falling, still stands at about 13% (780 million people). To help accomplish goals and targets (including ending hunger by 2030) in the 2030 Agenda for Sustainable Development as adopted by the United Nations in September 2015, Japan is promoting private sector investment and economic cooperation.

Number of people undernourished in developing regions



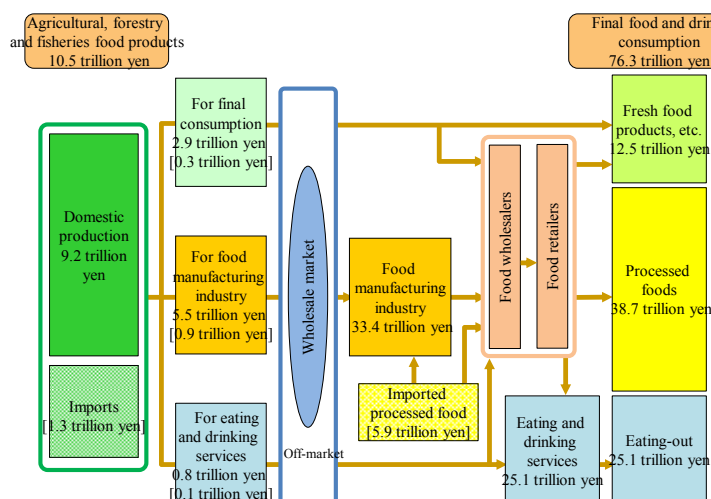
Source: FAO, IFAD, WFP, "The State of Food Insecurity in the World 2015" (published September 2015)

3 Food consumption trends and promotion of Shokuiku (food and nutrition education)

(1) Food consumption trends

- In 2011, domestic food supply included 10.5 trillion yen in agricultural, forestry and fisheries food products (9.2 trillion yen in domestic production and 1.3 trillion yen in imports) and 5.9 trillion yen in processed food imports. Final food and drink consumption totaled 76.3 trillion yen, continuing a downward trend after peaking in 1995.
- Japan's daily per capita calorie supply has followed a downward trend. While livestock products, fatty oils, wheat and potato/starch supply has remained almost unchanged, mainly rice and seafood supply has declined.

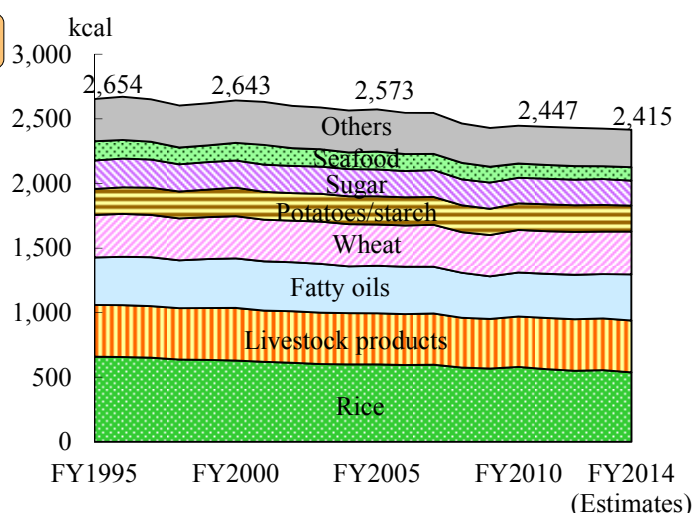
Flow of Japan's agricultural, forestry and fisheries products production, distribution, processing and consumption (2011)



Source: MAFF, "2011 Input-Output Tables for Agriculture, Forestry and Fisheries, and Related Industries"

Note: Import figures in parentheses

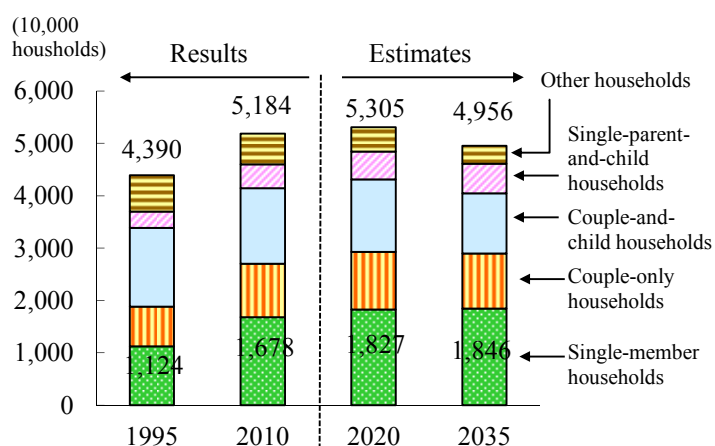
Daily per capita calorie supply trends



Source: MAFF, "Food Balance Sheet"

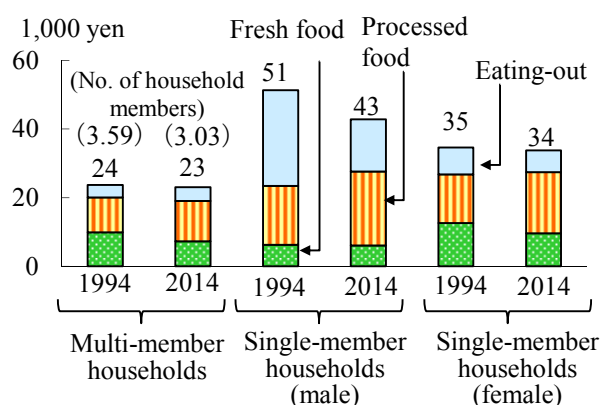
- The number of households has recently increased, with the rise centering on single-member households. While the total number of households is expected to peak in 2020, single-member households are projected to increase.
- Of per capita food spending, processed food spending for both men and women for single-member households is greater than for multi-member households. As single-member households increases, processed food spending is expected to expand.

Trends of households by household type



Sources: MIC, "Population Census"; National Institute of Population and Social Security Research, "Household Projections for Japan (nationwide estimates) (January 2013)"

Trends of monthly per capita food spending by household type

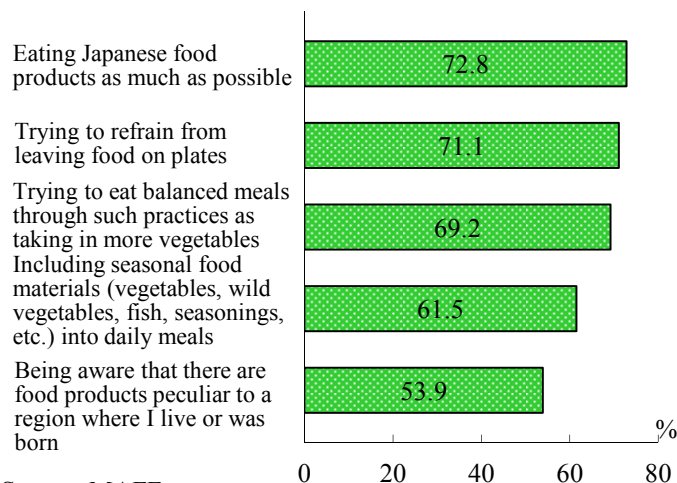


Source: Prepared by MAFF, based on MIC, "National Survey of Family Income and Expenditure" and "Consumer Price Index"

(2) Promotion of Shokuiku (food and nutrition education), conservation and succession of WASHOKU

- The Third Basic Plan for Shokuiku Promotion for five years between FY2016 and FY2020 was prepared in March 2016.
- Shokuiku programs, including the practice of the Japanese dietary pattern and the experience of agricultural, forestry and fishery activities, represent initiatives to promote consumers' understanding about food and nutrition, and the agriculture, forestry and fisheries sector and expand the consumption of domestically produced agricultural products.
- Given the diversification of food and changes in family environments, it is important to deepen citizens' interest in and understanding about "WASHOKU" for the protection and succession of "WASHOKU" through the promotion of Japanese school lunches and regional Shokuiku activities.

Practices of which you have become more conscious through your participation in agricultural, forestry and fishery activities



Source: MAFF surveys

"WASHOKU" school lunches on "WASHOKU" Day

On "WASHOKU" Day on November 24, 2015, about 2,000 elementary and junior high schools implemented a "WASHOKU" school lunch program to include plain soup with stock into school lunches and think about "WASHOKU" culture.

Taimei Elementary School in Tokyo's Chuo-ku served a school lunch including a soup with tofu soybean cake and vegetables in five colors, grilled Spanish mackerel with starchy sauce made from multiple beans, and young sardines mixed with vegetables and sesame vinegar sauce. After the lunch, a "WASHOKU" cook provided a Shokuiku class under the theme of "Let's understand the wonder of "WASHOKU" by tasting soup stock."

Pupils deepened their understanding of soup stock as the base of "WASHOKU" by tasting a "WASHOKU" school lunch and trying soup with stock they made.

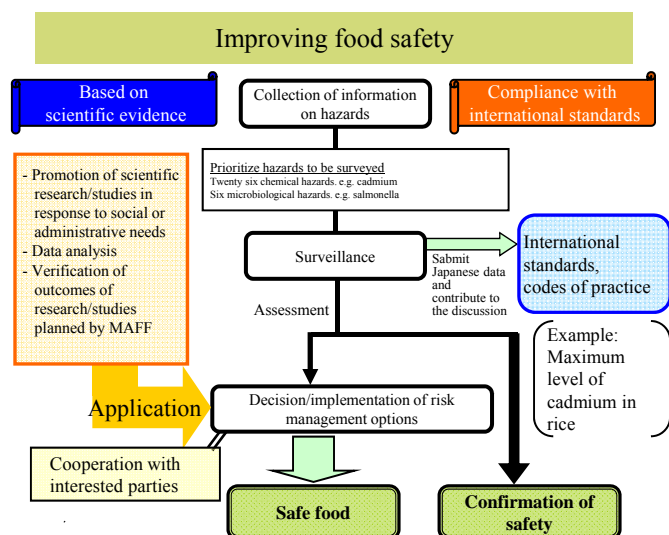


"WASHOKU" school lunch scene

4 Ensuring food safety and consumer confidence

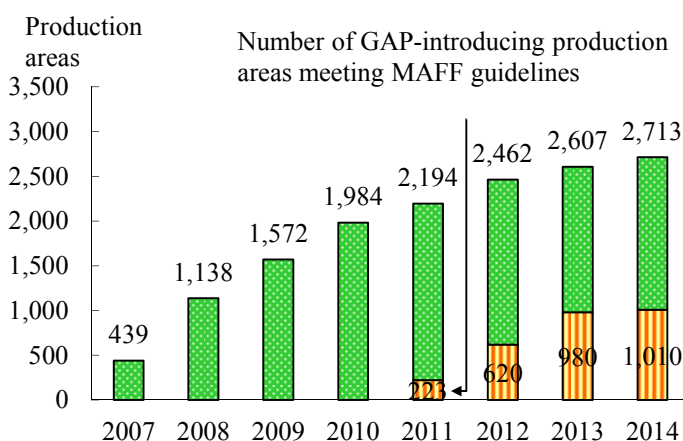
(1) Efforts for improving food safety

- Risk management based on scientific evidence targeting throughout the food chain, from production to consumption, is essential to improve food safety.
- While the GAP (Good agricultural practice) has diffused for the production stage, only some 20% of GAP initiatives meet the MAFF guidelines. In the manufacturing stage, the gradual introduction of the HACCP (Hazard Analysis and Critical Control Point) system is promoted.



Source: MAFF

Trends of GAP-introducing agricultural production areas

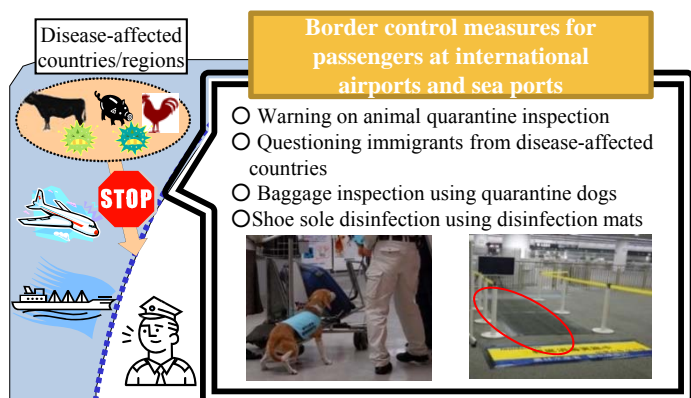


Source: MAFF surveys

(2) Animal epidemic prevention and phytosanitary measures

- The government implements border control measures against foot-and-mouth and other animal infectious diseases and plant pests. Given an increase in the number of foreign tourists visiting Japan in recent years, the government has enhanced inspections.
- To prevent the epidemic of oriental fruit flies and other plant pests confirmed in Japan and exterminate them, the government checks epidemic areas, restricts host plant movements and takes preventive measures.
- To ensure the quality and volume of fruit and vegetable exports, the government conducts export inspections at production and consolidation sites at the request of exporters. The government also implements the development of animal and plant quarantine methods and systems for easy use by business operators and other measures to pave the way for farm and livestock products to be sold as souvenirs.

Border control to prevent invasion of animal infectious diseases



Source: MAFF

Consolidation site inspections to promote the export of fruits and vegetables

- Export inspections are conducted at production and consolidation sites for farm products for exports at the request of exporters.
 - Lettuce for Taiwan produced in Kawakami Village, Nagano Prefecture
 - Unshu-Mikan orange (citrus unshiu) for Taiwan at the Osaka Central Wholesale Market, etc.

(Consolidation site inspections)
About 4,000 inspections (2009)
→ About 8,000 inspections (2014)



Source: MAFF

(3) Efforts to ensure consumers' confidence

- Given intentional food poisoning and tampering cases in recent years, the government hosted meetings of food industry group, consumer group and press representatives and experts and revised the five basic principles for food business operators to add the concept of concrete estimation of product recalls, appropriate initial response, information provision and others in January 2016.
- The government established a comprehensive, unified system for food labelling under the Food Labelling Act, which took effect in April 2015. Major changes adopted in the new system include (1) the mandatory nutrition labelling for processed food products, (2) the improvement of rules for allergen labelling and (3) the establishment of the system of Foods with Function Claims.

Major changes under the new Food Labelling System

Improvement of labelling layouts			Requirement for nutrition labelling	
Setting up columns for individual items to clarify raw material and additive categories			Nutrition information per package	
Name	Snack confectionery		Energy	483kcal
Ingredients	Potato (non-genetically-modified), vegetable fat and oil, common salt, dextrin, lactose, protein hydrolysate (including wheat), yeast extract powder, powder soy sauce (including soybean), seafood extract powder (including crabs and shrimps)		Protein	3.8g
Additives	Spices, seasoning agents (including amino acid), egg shell calcium		Fat	35.3g
Net contents	81g	Expiration date	Carbohydrate	37.6g
Storage conditions	Avoid direct sunlight and hot/humid places for preservation		Salt equivalent	0.8g
Manufacturer	XXXXX Co., Ltd. Address			

Change for allergen labelling

- In principle, allergenic substances components must be individually labelled. In blanket labelling, all specific raw materials of a food product must be labelled at the end of the column for ingredients.
- Specific processed food products, expected generally to include specific raw materials, and their expanded labelling were abolished.

Function claims of Unshu-Mikan orange (citrus unshiu)

The Mikkabi agricultural cooperative in Shizuoka has implemented an initiative to create new demand for Unshu-Mikan oranges by function claims. The cooperative analyzed the content of β -cryptoxanthin as a functional substance of the Unshu-Mikan orange in preparation for reporting and submitted the function claim labelling to the Consumer Affairs Agency in August 2015. After the Unshu-Mikan orange was registered as the first fresh food product with function claims, the cooperative held briefings for producers, shipping cooperatives and markets before launching "Mikkabi Mikan" on November 5, 2015.

The Mikkabi agricultural cooperative expects the research on β -cryptoxanthin to make further progress for expansion of Unshu-Mikan orange consumption throughout Japan. The cooperative plans to promote the product taking advantage of qualitative improvements and function claims.



A cardboard box with a "foods with function claims" label

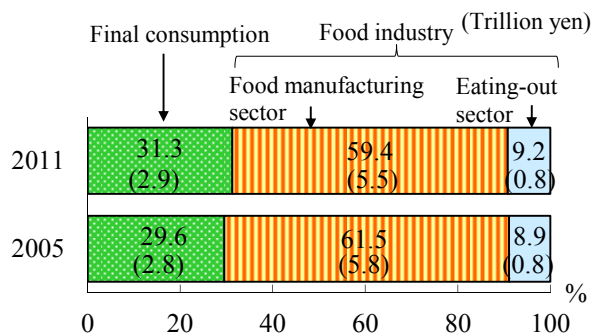
Source: Prepared by MAFF based on data from CAA

5 Food industry trends

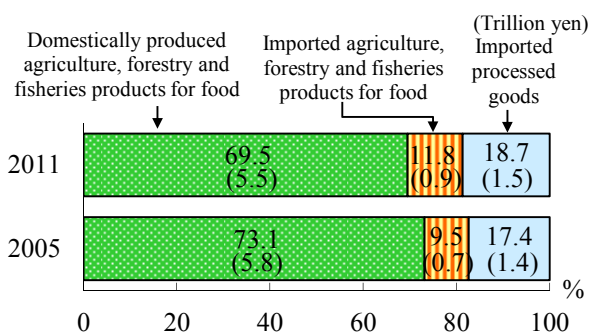
- Of agricultural, forestry and fisheries products, 70% are used in the food industry, which is the largest destination for domestically produced agricultural, forestry and fisheries products. Of raw materials (agricultural, forestry and fisheries products and imported processed food), domestically produced agricultural, forestry and fisheries products account for 70%.
- The food industry must grab food-related markets around the world to sustain its development. To this end, food manufacturers have accelerated their overseas expansion. The number of their overseas subsidiaries and their sales are increasing.

Food industry's raw material procurement sources

(Breakdown of domestically produced agricultural, forestry and fisheries products by use)

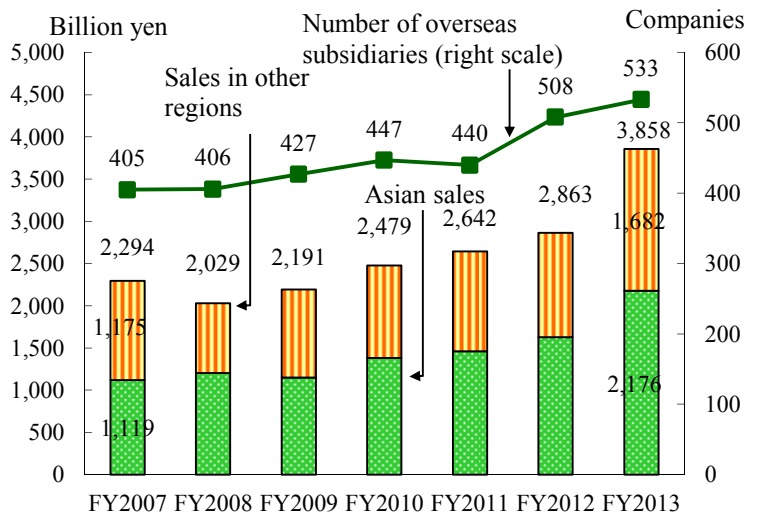


(Breakdown of food manufacturers' raw material procurement [domestically produced products, imports])



Source: MAFF, "2011 Input-Output Tables for Agriculture, Forestry and Fisheries, and Related Industries"

Trend of food manufacturers' overseas subsidiaries and sales

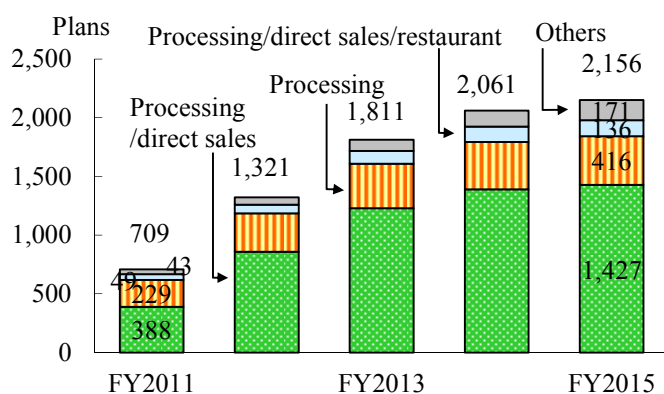


Source: METI, "Survey of Overseas Business Activities"

6 Exploring new demand for agriculture, forestry and fisheries products and food

- The number of certificates of business plans approved under the AFFrinnovation Act for agriculture, forestry and fisheries workers to undertake processing and direct sales of their products has exceeded 2,100, indicating a steady increase. Of the total, vegetables account for the largest share of 32%, followed by 18% for fruits, 12% for rice and 12% for livestock products.
- To promote AFFrinnovation, the government supports the expansion of sales channels after business launching and relevant regional community initiatives. AFFrinnovation planners are distributed throughout Japan.
- MAFF promotes collaboration between the medical care, welfare, food and agricultural sectors to explore new domestic markets.

Trends of the number of certificates of business plans approved under the AFFrinnovation Act
(As of March 31, 2016)



Source: MAFF

Business diversification through AFFrinnovation using crop rotation

Hatsuyoshi Oka, who represents Yatsushiro Nanohana Farm 987 in Yatsushiro, Kumamoto Prefecture, has combined rape, rice, rush and whole crop silage to develop a two-year four-crop rotation system, processing rush into tatami mats and developing and selling dry rush as an interior accessory.

Under an initiative using rotation crops for AFFrinnovation, he has used rape for producing honey and rape oil, brewed Japanese sake rice wine in cooperation with a local sake brewer. He also started vinegar production after meeting with a vinegar maker when visiting Tokyo to sell sake. Oka has thus developed various goods to diversify his business.

Oka has also launched a community-building initiative using rape blossoms. He plans to open a farming school to nurture his successors.



People of Yatsushiro Nanohana Farm 987

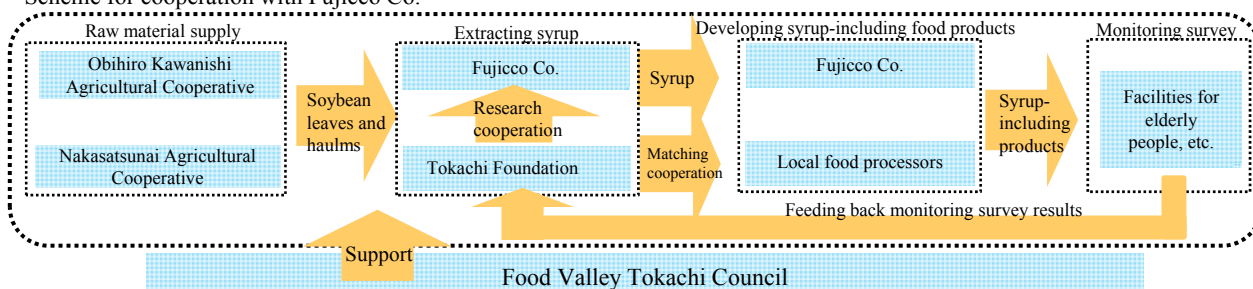
Regional community initiative for AFFrinnovation

The Food Valley Tokachi Council in Tokachi Region of Hokkaido Prefecture consists of local governments, relevant groups, financial institutions, universities and research laboratories to take advantage of agriculture and food as the region's strength to promote the region.

The council has gathered momentum to develop new products and launch new businesses through Tokachi food matching services and human resources development. It has promoted public relations activities, making progress in improving the awareness of regional products and expanding their sales channels.

The council has concluded a comprehensive cooperation agreement with Fujicco Co., under which regional agricultural cooperatives, research institutes and food processors have cooperated with Fujicco in developing new goods using syrup extracted from soybean leaves and haulms. It plans to exploit research achievements for improving added value in Tokachi.

Scheme for cooperation with Fujicco Co.



Priority theme

Structural changes in agriculture

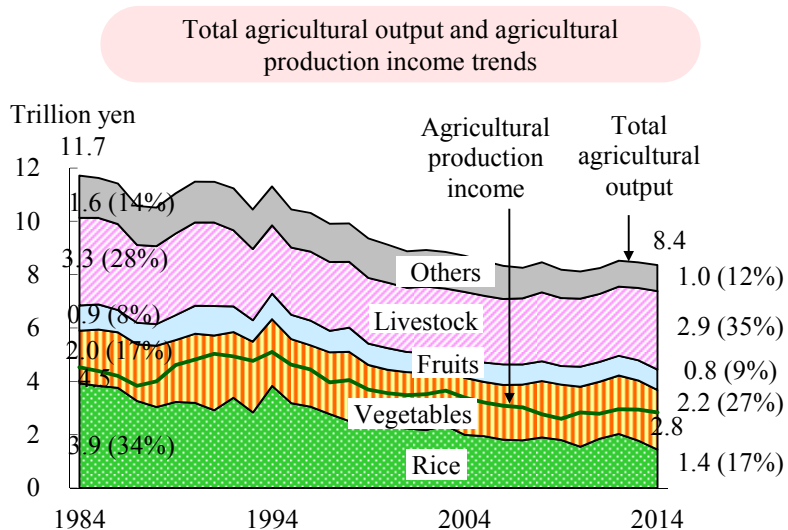
Japan's total agricultural output has remained above 8 trillion yen since 2001. The total farmland area slowly declined in recent years, standing at 4.496 million hectares in 2015. Dilapidated farmlands in 2014 aggregated 276,000 hectares. The number of core persons mainly engaged in farming has followed a downward trend. Farms have made progress in their expansion.

Total agricultural output trends

Japan's total agricultural output reached 11.7 trillion yen in 1984 before following a downward trend with a slight recovery seen in some years. Since 2001, the annual total output has remained above 8 trillion yen.

Among product categories, vegetable output increased by 200 billion yen from 1984 to 2014, while rice, livestock and fruit output declined. In particular, rice output decreased by 2.5 trillion yen due mainly to price drops for 2014 output. Prices for 2015 output have increased as the supply-demand balance for table rice has tightened.

Of the total agricultural output, rice accounted for the largest share in 1984, followed by livestock and vegetables. In 2014, however, livestock captured the largest share, followed by vegetables and rice, indicating a major ranking change.

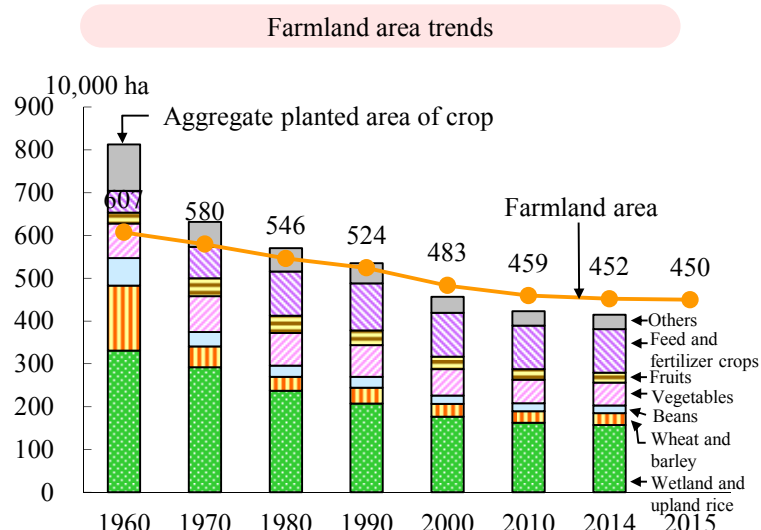


Source: MAFF, "Agricultural Production Income Statistics"

Farmland area trends

The total farmland area in 2015 decreased 22,000 hectares from the previous year to 4.496 million hectares, continuing a slow downward trend in recent years.

Dilapidated farmland that has been concluded by municipal governments and agricultural committees as unavailable for cultivation totaled 276,000 hectares in 2014, including 132,000 hectares available for restoration.



Source: MAFF, "Statistics on Cultivated Land and Planted Area"

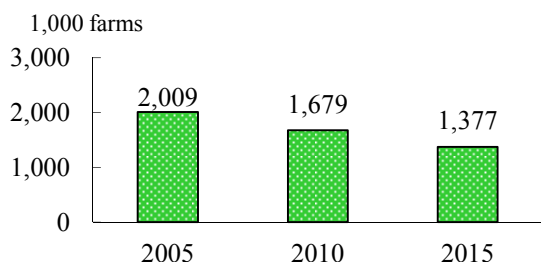
Trends of farms

The number of farms in 2015 stood at 1.377 million, continuing a downward trend. However, the number of corporation farms has increased steadily year by year. In the future, more farms should be incorporated.

Farms broken down by size group indicate that the number of farms in 2015 increased from 10 years earlier for 50-hectare or larger farms in Hokkaido and for 5-hectare or larger farms in other prefectures, with a remarkable rise being seen in the number of 100-hectare or larger farms in Hokkaido and 20-hectare or larger farms in other prefectures, indicating progress in farm size expansion.

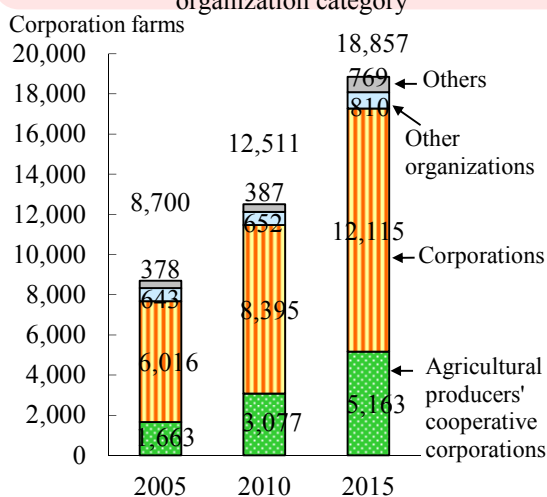
The number of core persons mainly engaged in farming in 2015 came to 1.754 million, continuing a downward trend. Their breakdown by age group indicates that those aged 65 or more accounted for 65% of the total number, those aged 40 or less capturing 10%, showing a remarkable imbalance. Particularly, rice farmers have been aging.

Changes in the number of farms



Source: MAFF, "Census of Agriculture and Forestry"

Changes in the number of corporation farms by organization category



Source: MAFF, "Census of Agriculture and Forestry"

Changes in the number of farms by size group

(Hokkaido)

(Unit: farms)

	2005	2015	Change (%)
Less than 5 ha	16,312	10,195	-37.5
5 ha or more, less than 20 ha	20,553	13,197	-35.8
20 ha or more, less than 50 ha	12,608	11,570	-8.2
50 ha or more, less than 100 ha	4,438	4,584	3.3
100 ha or more	705	1,168	65.7

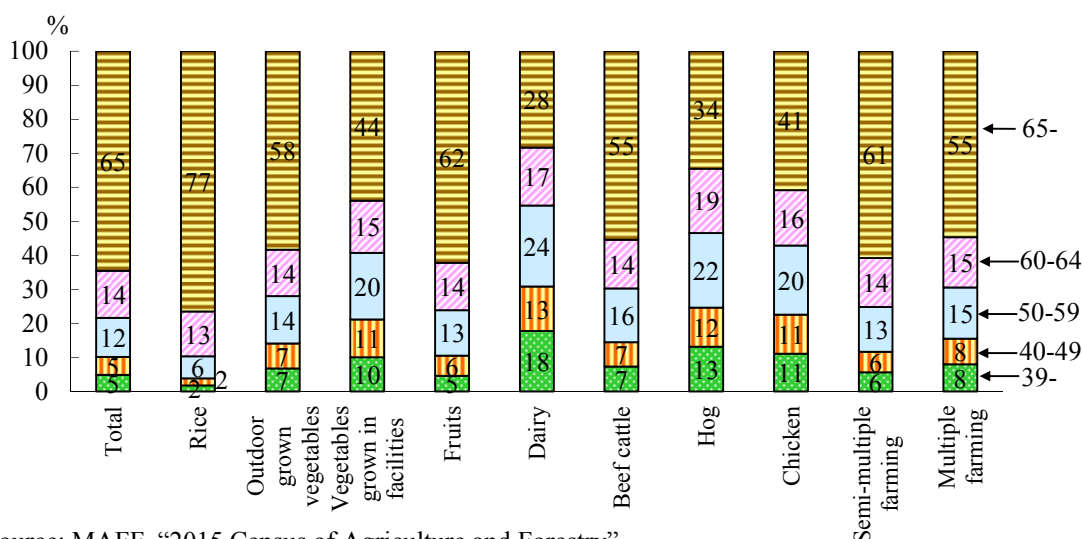
(Other prefectures)

(Unit: farms)

	2005	2015	Change (%)
Less than 5 ha	1,899,393	1,262,058	-33.6
5 ha or more, less than 20 ha	51,634	64,428	24.8
20 ha or more, less than 50 ha	3,119	8,107	159.9
50 ha or more, less than 100 ha	459	1,537	234.9
100 ha or more	159	422	165.4

Source: MAFF, "Census of Agriculture and Forestry"

Core persons mainly engaged in farming by farming type and age group



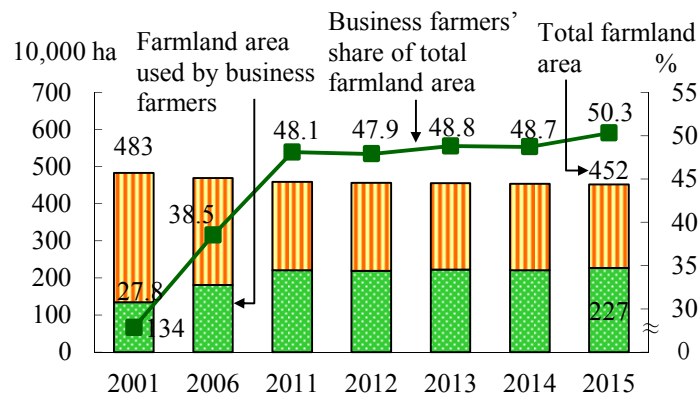
Source: MAFF, "2015 Census of Agriculture and Forestry"

1 Farmland consolidation and trend of business farmers

(1) Farmland consolidation initiative

- As business farmers have decreased, with more farmland dilapidated, the government promotes the preparation and regular review of personnel and farmland plans indicating the future picture of regional business farmers and farmland use through talks.
- In order to increase business farmer's share of the total farmland area to 80%, the government has established Public Corporations for Farmland Consolidation to Core Farmers through Renting and Subleasing (Farmland Banks). In their first year (FY2014), the Farmland Banks rented 29,000 hectares of farmland and subleased 24,000 hectares. They should be put on track as early as possible to substantially expand farmlands for business farmers.

Changes in business farmers' share of Japan's total farmland area



Sources: MAFF, "Statistics on Cultivated Land and Planted Area," "Survey on Community-based Farm Cooperatives" (aggregate calculation after reclassification), MAFF surveys

Note: Data are at the end of March for each year.

Farmland consolidation initiative using Farmland Banks

Miyauchi in Daisen Town, Saihaku Country, Tottori Prefecture is a hilly, mountainous area with 28 farming families and 27.7 hectares of farmland. Young business farmers undertake most farming operations under contracts. In 2014, residents in the area considered using the prefectural Farmland Bank when talking about their personnel and farmland plans. They used the Farmland Bank to provide 15.5 hectares of farmland from 20 families to business farmers, raising business farmers' farmland consolidation rate from 9% in 2013 to 56% in 2014.

Farmland providers have established a Miyauchi farmland conservation association, under which farming families plan to share grass-cutting operations on nearby farm roads and causeways to support business farmers and conserve farmlands.

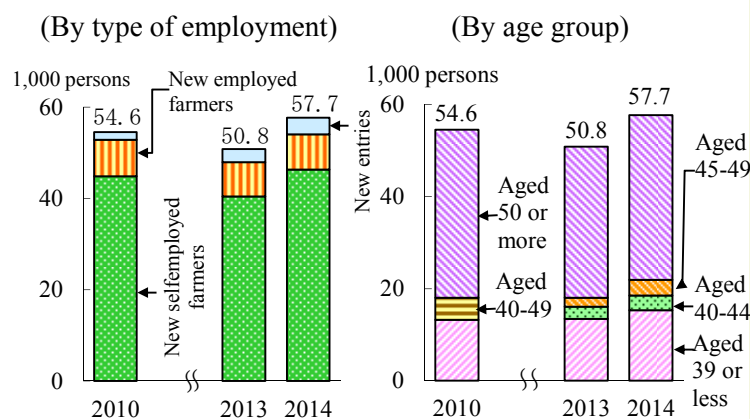


Community meeting on a personnel and farmland plan

(2) Initiatives to secure business farmers and trends of women farmers

- It is important to nurture farmers with excellent business sense as well as farming skills.
- The government promotes corporation farms that are favorable for efficient and stable farming.
- To secure new farmers, national and local governments implement various measures to help people to launch farming.
- Women farmers accounted for 43% of core persons mainly engaged in farming, playing a key role in supporting agriculture and local activities. Women farmers are demonstrating their capabilities and implementing farm management for high goals or aims throughout Japan.
- The entry of corporations into the agriculture sector is in progress at the quintuple pace after the revision of the Agricultural Land Act in 2009. By the end of June 2015, 1,898 corporations had entered the agriculture sector.
- The government provides certified and other business farmers with support under farming income stabilization measures.

Changes in newcomers in agriculture



Source: MAFF, "Survey on Newcomers in Agriculture"

AFFrinnovation initiative based on women's sense

Hiromi Ogawa of Ogawa Farm in Kobayashi City, Miyazaki Prefecture, moved to the city along with her husband Michihiro in 2006 and underwent training at the Miyazaki Farmers Academy and farms before launching the cultivation of vine-ripened mini-tomatoes. She has also launched an AFFrinnovation initiative to develop mini-tomato jam, tomato sauce, tomato puree and other products.

Based on women's sense, she has devised a recyclable bottle that carries an easily-removable tag instead of a paper label for these tomato products. As a member of the "Nougyou-Joshi Project" (campaign for women farmers to be more active in agricultural business by cooperating with various industries to tap women farmers' knowledge and experiences), Hiromi has participated in market and other events in Tokyo.

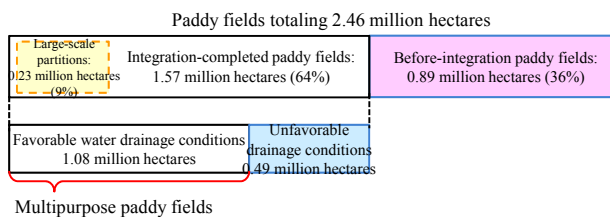


Hiromi Ogawa (left) and Michihiro Ogawa (right)

2 Developing and conserving agricultural production infrastructure

- Of paddy fields totaling 2.46 million hectares in Japan, about 60% have been integrated into 30-are or larger partitions. Only 10% have been integrated into large (1-hectare or larger) partitions. About one-third of integrated paddy fields have unfavorable drainage conditions. It is important to promote infrastructure development including the expansion of farmland partitions and the general use of farmlands to improve domestic agriculture's productivity and support a strong agriculture.
- Given that agricultural irrigation facilities are out of date and that torrential rain and other disaster risks are going, the government promotes the systematic and efficient repair and renewal of agricultural irrigation facilities and disaster prevention/reduction measures combining hardware and software to make rural areas more resilient.
- Even in hilly, mountainous and other areas with disadvantageous conditions for agricultural production, there are some cases in which large agricultural production areas have been developed through production cost cuts triggered by infrastructure improvement and through the creation of unique brands.

State of paddy field improvement (2014)



Sources: MAFF, "Statistics on Cultivated Land and Planted Area," and "Basic Survey on Agriculture Infrastructure Information"

Agriculture production infrastructure development in hilly and mountainous areas and its effects

Nara Prefecture's Gojo City, which has traditionally developed as a Japanese persimmon production area, had had difficulties in stabilizing persimmon harvest and quality due to many steeply inclined orchards and insufficient irrigation until the first half of the 1970s. Infrastructure development from 1974 created mildly inclined orchards and new irrigation facilities including dams and drains, helping expand persimmon harvest 30% and enlarge persimmon sizes.

Even in a hilly and mountainous area with disadvantageous conditions for agricultural production, infrastructure development has helped the city grow into one of the leading persimmon production sites in Japan.



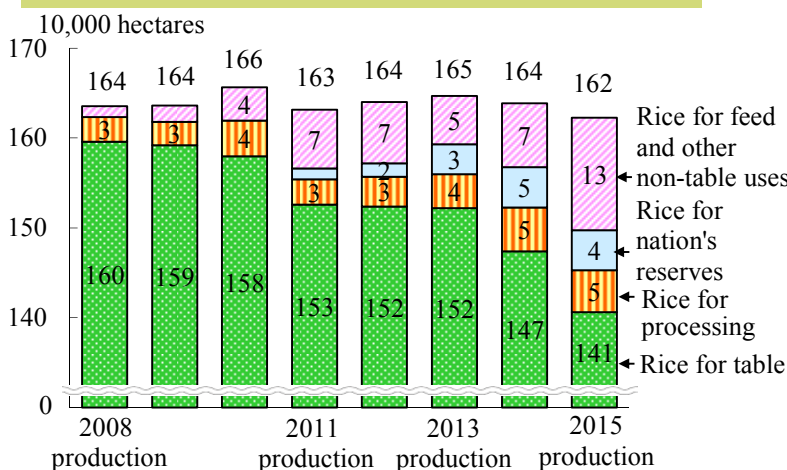
A persimmon orchard in Gojo, Nara Prefecture

3 Production trends for major farm and livestock products

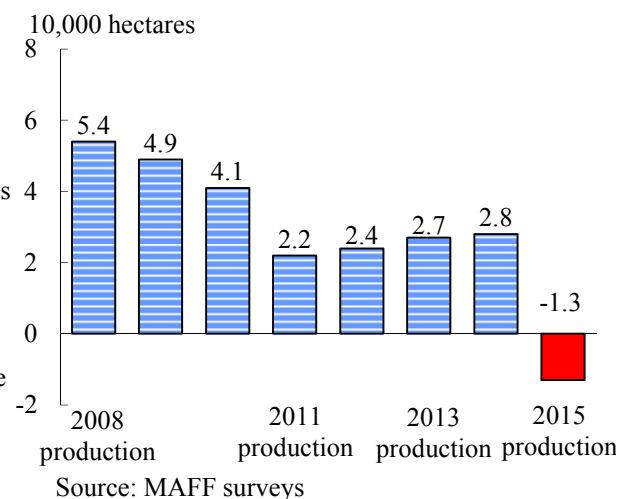
(1) Rice

- Japan's total area for planting table rice in 2015 indicated that excess planting disappeared for the first time since the commencement of production target volume allocation in 2004 as farmers promoted a switch from table rice to feed rice, wheat or soybeans.
- The government will continue efforts to pave the way for farmers by 2018 to appropriately determine their production volume meeting demand in view of market trends by themselves, without depending on the administrative sector's allocation of target production volume.
- As the supply-demand balance for table rice produced in 2015 tightened, the average negotiated price for all rice brands in March 2016 rose by 1,309 yen per 60 kilograms over the last year to 13,252 yen per 60 kilograms (annual average price in 2015 was the record low).

Changes in total rice-planted area including paddies subject to early harvests

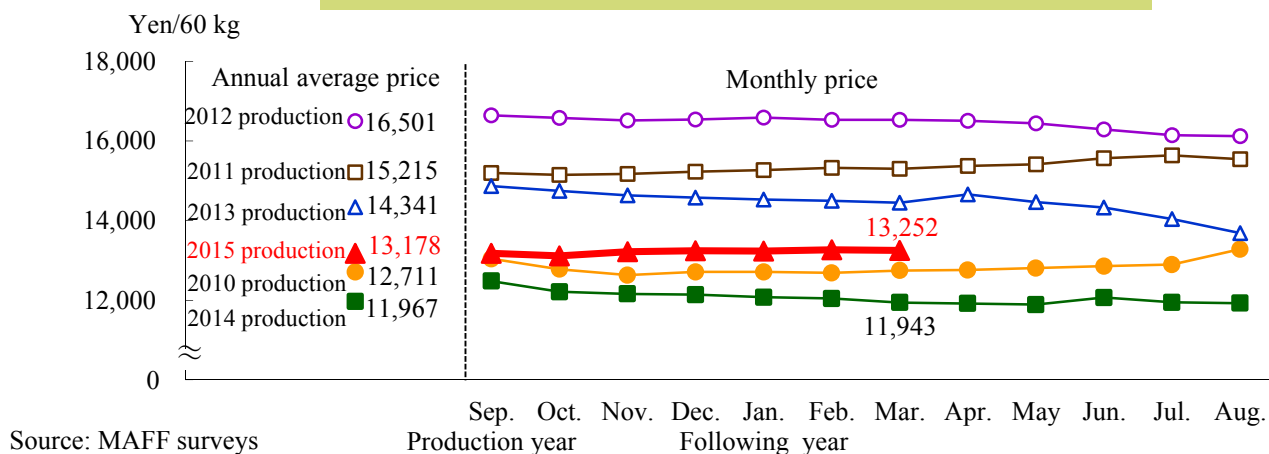


Changes in excess planting for table rice



Sources: MAFF, "Statistics on Cultivated Land and Planted Area," MAFF surveys

Changes in the monthly average negotiated price for all table rice brands



- To effectively use rice paddies as an excellent production tool to maintain and improve Japan's food self-sufficiency potential and ratio, the government is leading farmers to promote rice for feed and many other non-table uses, or to wheat and soybeans, for which demand is higher.
- To further promote the production of rice for feed, the government promotes efforts to secure matching between producers and users, and to reduce production and distribution costs. For production cost cuts, MAFF has published a manual for reducing feed rice production costs.
- Initiatives to use feed rice for increasing the added value of livestock products have made progress. The government is promoting the further expansion of feed rice consumption.

Outline of the manual for reducing feed rice production costs

Realizing higher yield

Achieving higher yield with high-yield varieties and more fertilizers



Cost reduction know-how

Introducing advanced know-how to rationalize operations
Introducing direct seeding, manuring, streamlining fertilization



Farmland expansion

Production cost cuts through farmland concentration and intensification, production season distribution to expand production scales

Intensification	
Table rice	Table rice
(Koshihikari [fast-growing])	(Koshihikari [fast-growing])
Feed rice	Feed rice
Momiroman (Medium-growing)	Kusanohoshi (Late growing)

An initiative to improve feed rice yield and cut costs

An agriculture revitalization council in Aira City, Kagoshima Prefecture, has promoted feed rice production since 2009. The council uses the high-yield variety of Mizuhochikara to improve yield and holds seminars at rice paddies for discussions on cultivation know-how. In 2015, 96 farmers produced feed rice. The council conducts demonstration tests on low-cost production know-how including direct seeding on dry paddies and the use of poultry manure, considering varieties and cultivation know-how suitable for the region. It has developed the initiative to use feed rice production for stabilizing regional rice farming.



A seminar scene

Source: MAFF

Using feed rice to raise added value of pork

Frieden Daito Farm, which undertakes integrated swine production including breeding and fattening in Ichinoseki City, Iwate Prefecture, launched a Frieden group council to promote the use of feed rice along with local farming and other organizations in 2006, aiming to use idle and unfavorable rice paddies and farm compost for a resource-recycling feed rice cultivation program. Its feed rice planting area expanded from 11 hectares in 2007 to 119 hectares in 2015. Crop production families cultivate high-yield varieties to raise the yield and stabilize the protein content at high levels. They also try to reduce agricultural chemical consumption and use compost and liquid fertilizers to cut costs. Daito Farm uses feed rice for 15% of feed to increase oleic acid and reduce linoleic acid in pork. And the pork's flavor is improved.



Using feed rice to brand pork

Using feed rice to increase added value for eggs and processed egg products

Ogawa Chicken Farm in Daisen Town, Tottori Prefecture, began to use feed rice in cooperation with a nearby agricultural producers' cooperative corporation in 2010 after international prices of feed corn prices rose sharply. It now purchases 100 tons of feed rice from a cooperation partner, using feed rice for 8% of feed for ordinary eggs and for 100% of feed instead of corn for eggs with white yolks.

Given that eggs with white yolks can be used for roll cakes and other sweets sold at a farm stand to improve their colors, such eggs are increasingly being used for processed products.

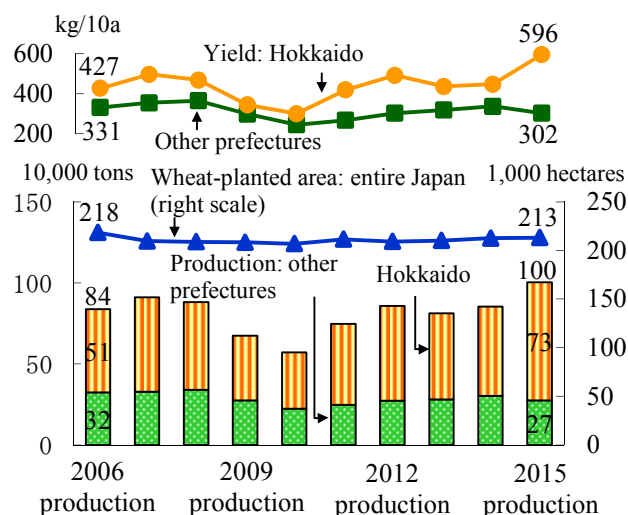


Processed products using eggs from chickens raised with feed rice

(2) Wheat, soybeans

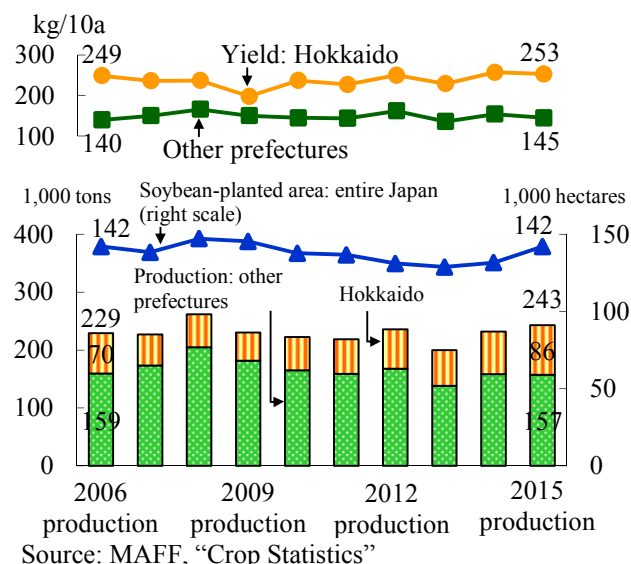
- Japan's wheat-planted area has leveled off in recent years. As the development and introduction of special wheat varieties for bread and noodles have made progress, products using domestically produced wheat have increased. Given that the stabilization and improvement of yield and quality is a challenge for wheat, which is vulnerable to moisture damage, the government promotes thorough drainage measures and fertilizing management.
- Japan's soybean-planted area increased 10,000 hectares from the previous year. Planted areas of farms that plant soybeans on 5 hectares or more accounted for 67% of the total soybean-planted area, indicating that business farmers' soybean production expanded. Given that slumping yields and price fluctuations depending on crop conditions are challenges, the government considers initiatives to improve yield and stabilize transactions, and promotes stable, systematic production meeting requests from users.

Changes in wheat-planted area and wheat production, etc.



Source: MAFF, "Crop Statistics"

Changes in soybean-planted area and soybean production

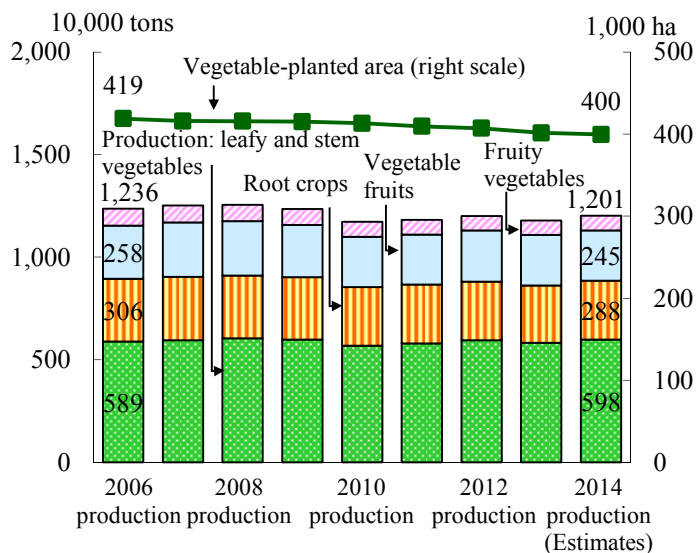


Source: MAFF, "Crop Statistics"

(3) Vegetables, fruits

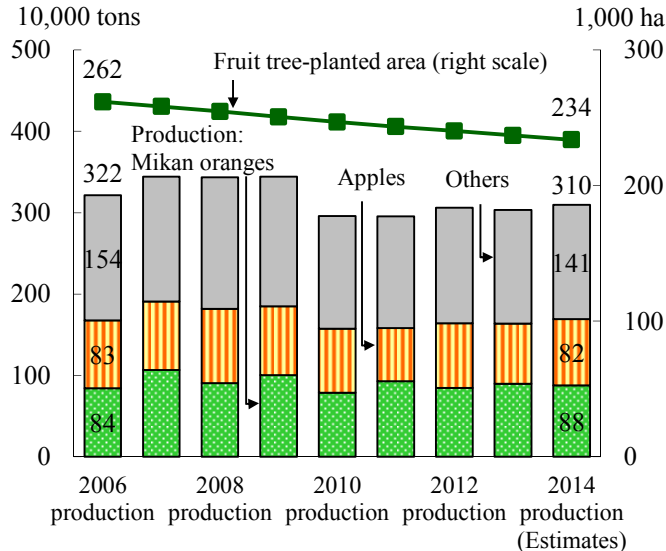
- The total vegetable planting area has followed a moderate downward trend in Japan. In response to growing demand for processed food products, the government promotes initiatives to reduce vegetable production costs through the introduction of vegetable varieties for processing and manufacturing uses, and mechanized integrated production systems and to increase domestically produced products' share of vegetables for processing and manufacturing uses.
- The total fruit production area has followed a moderate downward trend. The government promotes the acceleration of switching to superior items or varieties and the introduction of low-cost, labor-saving cultivation know-how for stable production and supply of fruits for processing and manufacturing uses toward stable production of high-quality fruit in response to changes in demand from consumers.

Changes in the total vegetable-planted area and production volume



Sources: MAFF, "Statistics on Production and Shipment of Vegetable," "Food Balance Sheet"

Changes in the total fruit tree-planted area and fruit production volume



Sources: MAFF, "Statistics on Cultivated Land and Planted Area," "Food Balance Sheet"

(4) Livestock products

- While the number of livestock farms has decreased in Japan due mainly to livestock farmers' growing retirement as they age and shortages in their successors, the number of animals per farm has increased.
- In FY2015, after a butter production fall in the previous year, the government implemented measures to enhance raw milk production infrastructure, used the state trade system to import butter in periods and forms meeting demand and shared supply and demand outlook information with retail stores.
- Beef calf prices rose as calf births declined due to a drop in cows for breeding.
- It is important to promote livestock farming clusters in which distributors, processors, municipal governments and other relevant parties cooperate and collaborate to promote dairy farming and beef cattle production and improve the profitability of livestock farming.

Changes in the numbers of livestock farms and animals per farm

		Number of livestock farms		Number of animals per farm	
		2005	2015	2005	2015
Dairy cattle	Hokkaido	8,830	6,680	97.1	118.6
	Excluding Hokkaido	18,800	11,000	42.4	52.6
Beef cattle		89,600	54,400	30.7	45.8
	Cows for breeding	76,200	47,200	8.2	12.3
	Fattening cattle	13,600	8,210	52.7	90.2
	Dairy cattle for beef	7,910	5,320	132.6	155.6
Pigs		8,880	5,270	1,095.0	1,809.7
Layers (×1000)		4,090	2,560	33.5	52.2
Broilers (×1000)		2,652	2,380	38.6	57.0

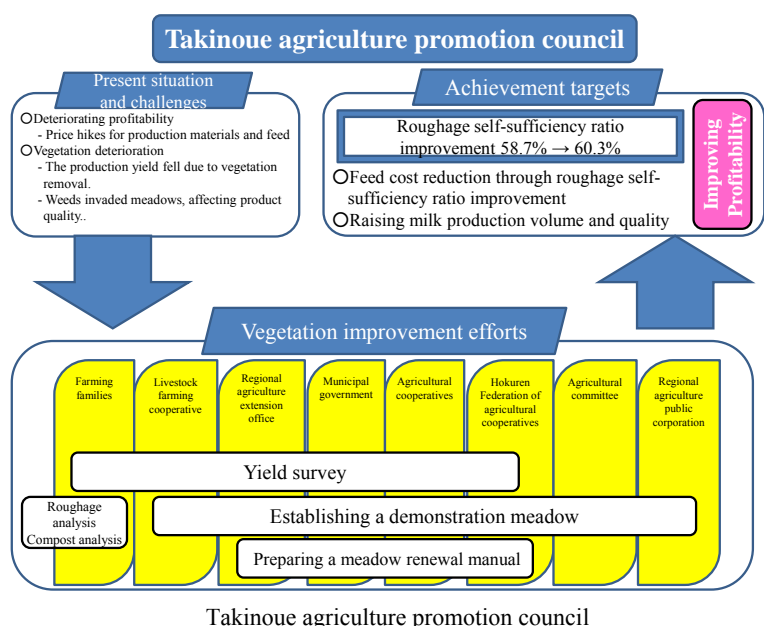
Source: Prepared by MAFF based on "Statistics on Livestock"

Notes:

- 1) Data for pigs and layers for 2005 are from 2004 as the survey was suspended in 2005.
- 2) Data for pigs, layers and broilers for 2015 are from 2014 as the survey was suspended in 2015.

Livestock farming cluster to raise the roughage self-sufficiency ratio, and milk volume and quality through meadow improvement

The Takinoue livestock farming cooperative in Monbetsu County, Hokkaido Prefecture, though realizing excellent milk production volume and quality, found a problem in that there were far more weeds in meadows than expected. In FY2014, therefore, the cooperative formed a Takinoue agriculture promotion council along with local agricultural cooperatives, the Hokuren Federation of agricultural cooperatives, the regional agriculture extension office and other relevant regional organizations to launch a livestock farming cluster to realize a target roughage self-sufficiency ratio in three years through meadow vegetation improvement. In February, the cooperative prepared a meadow vegetation improvement manual in a bid to cut feed costs by raising the roughage self-sufficiency ratio, to increase milk production volume and quality by improving roughage, and to expand earnings for farming families.



4 Promoting technological innovation on production/distribution fronts

(1) Strategic R&D and new industry-academia research cooperation initiatives

- To develop the agriculture, forestry and fisheries sector into a growth industry, the government promotes a new industry-academia research cooperation system (integration and utilization of “Knowledge”) to externally grab new ideas and technologies in different fields, produce innovative research achievements and promptly link research achievements to goods and business projects.
- The government promotes the creation of agricultural, forestry and fisheries products with advantages using new varieties meeting demand from consumers and users, and research, development and demonstration to dramatically improve productivity to enhance production fronts.

Three-step structure to move integration and utilization of “Knowledge”

STEP 1: Industry-Academia-Government collaboration conference on integration and utilization of “Knowledge”

The government promotes the building of a research and development platform covering researchers, producers and local governments through seminars and workshops.

STEP 2: Research and development platform

Research challenges, intellectual property treatments and business plans are considered in a run-up to the building of a research and development consortium.

STEP3: Research and development consortium

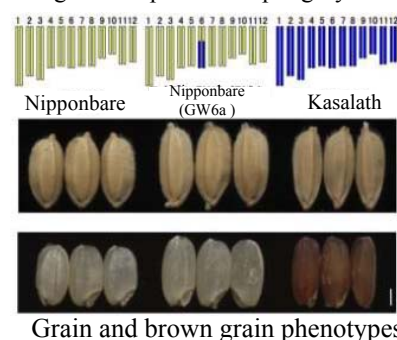
Accelerating the development of innovative technologies for commercialization

Source: MAFF

A gene that enlarges grains of rice

A research team lead by Nagoya University discovered that *GW6a* (Grain Weight 6a) gene of indica rice variety “Kasalath” controls the size of rice grains. The team found that the introduction of the *GW6a* gene of “Kasalath” to japonica rice variety “Nipponbare” significantly increased its grains by about 15% in weight. The utilization of this gene in breeding will help to develop high-yield rice varieties efficiently.

The information of *GW6a* genes of other crops, such as corn and wheat, is also useful for their high-yield breeding. The development of high-yield crop varieties is expected to defuse the impending food crisis.



(2) Using advanced technologies to innovate production and distribution systems

- As business farmers’ aging and labor shortages grow more serious, saving agricultural labor force and the succession of cultivation know-how to new farmers become important challenges. The government promotes the research, development and on-site demonstration of “smart agriculture” using robot, information and communications technologies to substantially save human labor and realize high-quality production.
- The government promotes next-generation greenhouse horticulture to take advantage of woody biomass and other regional energy resources and advanced technologies to reduce costs and realize year-round systematic production.

Smart agriculture initiatives

R&D bringing about new technological innovations



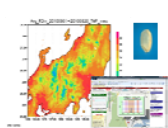
An automatic harvesting robot



A causeway-weeding robot for steep slopes



A timely operation and fertilization system



A pest forecasting and removing system

Accelerating introduction of innovations through effect demonstrations in demonstration areas



Agricultural machine operation assistance



An assist suit to reduce labor



A system for passing on know-how from practical farmers



Stable production of high-sugar-content peaches using sensing

A next-generation greenhouse horticulture initiative

Toyama Kankyo Seibi Co. in Toyama, Toyama Prefecture, launched the Toyama Smart-Agri Next Generation Greenhouse Horticulture Base Development Council along with the Toyama Prefecture government and other parties in 2014 to develop a next-generation greenhouse horticulture base that integrates a 4-hectare greenhouse with seeding and shipment preparation facilities and uses electricity and heat generated from a neighboring waste disposal facility for cultivation. The base began to produce fruit tomatoes, *Eustoma grandiflorum* and others in 2015, realizing year-round systematic production by introducing a system to use information and communications technologies to check greenhouse temperatures and other environmental data and the growth situation with mobile sensors and keep an optimum environment for plant growth. The company has also begun to produce processed tomato products, planning to create new industries and jobs in the rice monoculture region.



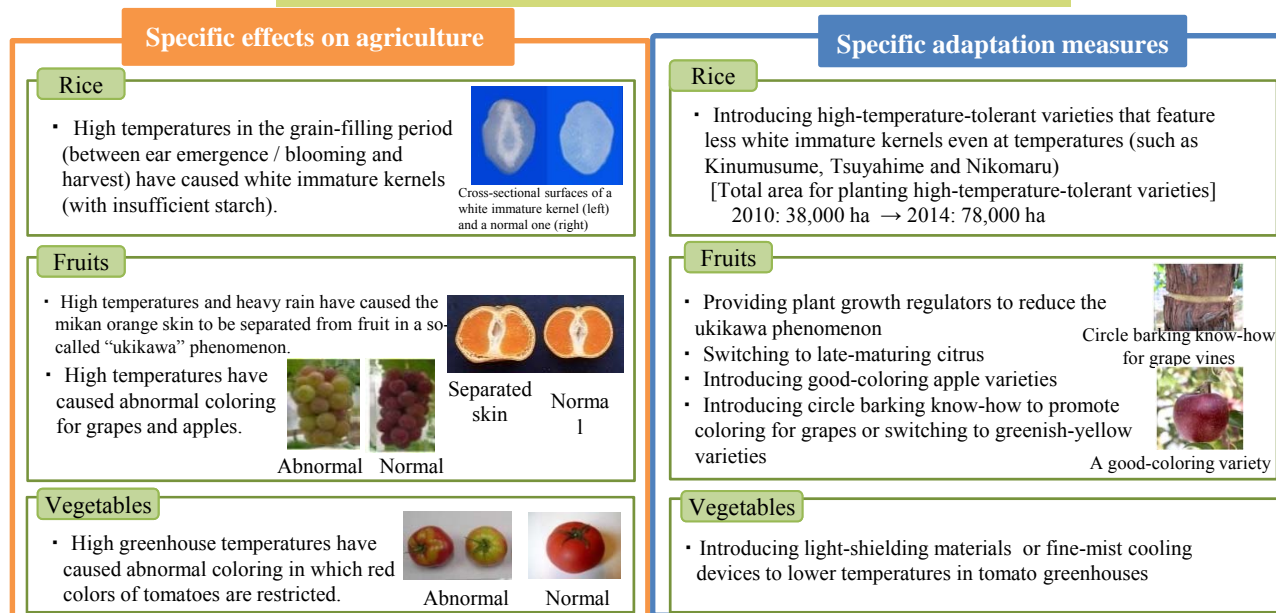
A mobile sensor

Source: MAFF

5 Promotion of environmental policy such as responses to climate change

- In December 2015, the 21st Conference of Parties to the United Nations Framework Convention on Climate Change adopted the Paris Agreement as a new international framework replacing the Kyoto Protocol to reduce greenhouse gas emissions in and after 2020. It is the first ever unbiased agreement in which all countries take part.
- To systematically proceed with climate change adaptation measures in response to effects that cannot be addressed by mitigation measures alone, the government assesses future effects, conducts research and development of adaptation technologies and promotes adaptation measures responding to emerging effects including farm product quality deterioration.

Emerging climate change effects and specific adaptation measures



Source: MAFF

6 Agriculture-related organizations supporting agriculture

- Major agriculture-related organizations to support farmers include agricultural cooperatives, agricultural committees, agricultural mutual relief organizations and land improvement districts that conduct operations contributing to the stability and development of farming and to stable food supply.
- In April, an act to revise the Agricultural Cooperatives Act took effect to integrally reform agricultural cooperatives, agricultural committees and agricultural production legal persons to develop agriculture into a growth sector by paving the way for business farmers to operate more proactively.

Legal framework to reform agricultural cooperatives

Revisions to the Agricultural Cooperatives Act

Allowing local agricultural cooperatives to conduct free economic operations and concentrate all their energies into improving agricultural income

- ◆ [Clarifying business objectives] Agricultural cooperatives should give full consideration to increasing agricultural income and realize high profitability with accurate business operations to pay special patronage dividends to farmers.
- ◆ [Pursuing agricultural cooperatives selected by farmers] Agricultural cooperatives must not force farmers to use cooperative business projects.
- ◆ [Responsible management system] The majority of directors at an agricultural cooperative are required in principle to be certified farmers or people with practical capabilities for selling agricultural products.
- ◆ [Providing local residents with services] Local agricultural cooperatives are allowed to reorganize their divisions into stock companies or consumers' cooperative societies.

The National Federation and Central Union should adequately support local agricultural cooperatives' free economic operations

- ◆ [National Federation] The National Federation of Agricultural Cooperative Associations (ZEN-NOH) is allowed to choose to be reorganized into a stock company.
- ◆ [Prefectural Central Unions] Shifting to federations of agricultural cooperatives to undertake business consulting, audit, representing opinions, comprehensive coordination, etc.
- ◆ [Central Union] Shifting to a general incorporated association to represent opinions of cooperatives and conduct comprehensive coordination. The Central Union's compulsory audit on cooperatives is abolished. Instead, certified public accountants' audit is required.

Revisions to the Act Concerning Agricultural Committees and Related Organizations

Promoting optimum utilization of farmlands, etc. (Farmland concentration/intensification for business farmers, preventing and eliminating idled farmlands, promoting new entrants in farming)

- ◆ The public election of agricultural committee members is replaced with their appointment by the municipal mayor subject to approval by the municipal assembly.
- ◆ Creating committee members for promoting optimization of farmland utilization
- ◆ Prefectural and national network support organizations are designated to support agricultural committees

Source: MAFF

Priority theme

Regional revitalization movement

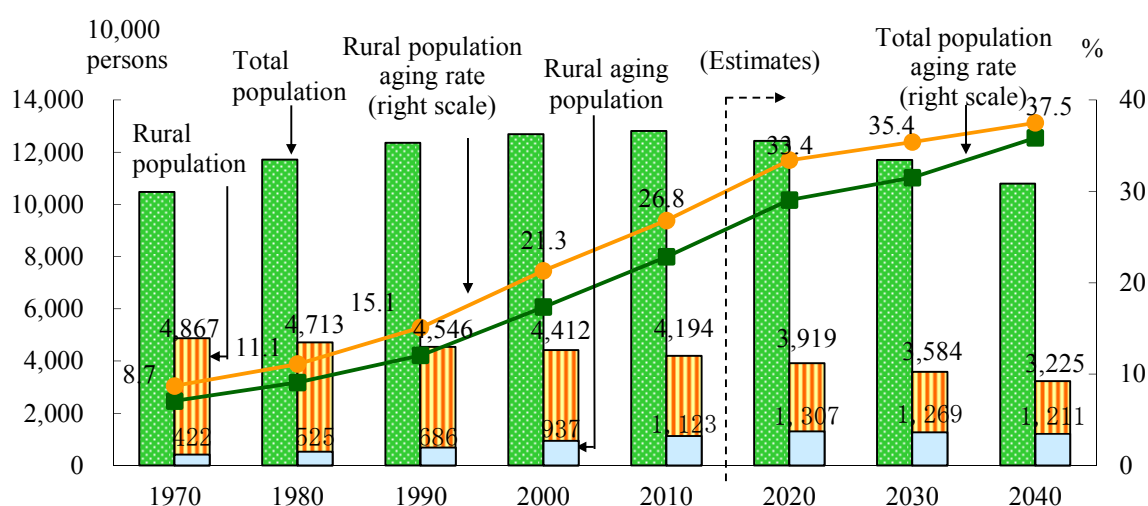
As the population declines and ages in Japan, a movement of “coming back to rural areas” is seen, with rural areas’ values rediscovered. In the meantime, residents in rural areas are carrying out various initiatives to take advantage of local resources for invigorating their communities.

Regional revitalization and rural invigoration

As population declines and ages in rural areas with the base for the sustainable development of agriculture, agricultural production and local community activities are seen to grow more vulnerable and lead to the devastation of local resources. As local government officials in charge of agriculture, forestry and fisheries are decreasing along with relevant spending, how to secure rural agriculture administration has become a challenge.

In such situation, rural residents should voluntarily form consensus on future pictures of their communities and promote initiatives to realize those pictures. Multiple rural communities are expected to cooperate in maintaining local resources and increasing added value on agricultural products.

Population and aging trend and outlook in rural areas



Sources: Estimated by MAFF based on MIC, “Population Census;” National Institute of Population and Social Security Research, “Estimates of Japan’s Future Population by Region (estimated in March 2013)”

A regional invigoration initiative taking advantage of local resources

In Mimata, Kanagicho, Hamada City, Shimane Prefecture, where the population has declined and aged, local residents have taken the initiative to utilize local resources, including food materials, for regional invigoration.

The Mimata yugenosato-zukuri (spa village building) committee established by local residents in 2011 paid attention to the local specialty of ancient black rice and considered cultivating, processing and commercializing the variety. It held workshops and other events for all local households to decide on product names and their package designs. The committee founded Mimata Yume Eight as a non-profit organization, which has successfully commercialized a *shochu* product into which black rice is processed. Along with a tofu product into which black soybeans, another local specialty, have been processed, the *shochu* is sold as a black food material at Mimata Hot Springs. The promotion of branding has led income for farmers cultivating black rice and soybeans to triple, achieving regional AFFrinnovation by taking advantage of local resources.

(Mimata was selected in the 2nd Discover Countryside Treasures in Japan)

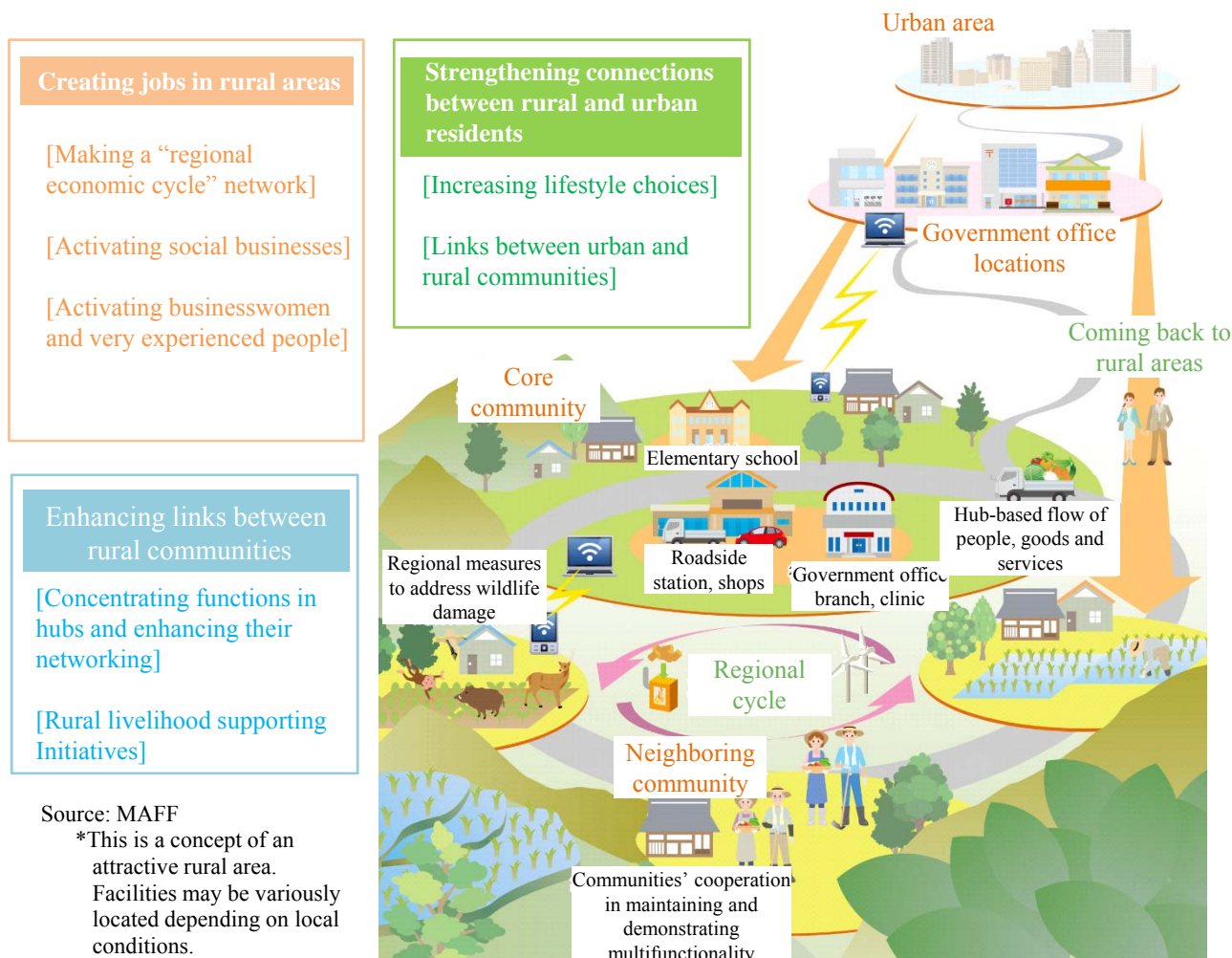


Shochu made from black rice and tofu made from black soybeans

Rural invigoration vision

As relevant government agencies promoted the deepening of regional revitalization, MAFF created a rural invigoration plan titled “Building Attractive Rural Areas” along with a basic plan in March 2015. The vision features three pillars -- (1) creating jobs in rural areas, (2) establishing higher connection between rural communities, and (3) strengthening connections between rural and urban residents. Under the vision, MAFF promotes rural invigoration measures and backs up local practices.

Building Attractive Rural Areas



Source: MAFF

*This is a concept of an attractive rural area. Facilities may be variously located depending on local conditions.

A rural invigoration initiative taking advantage of vacant houses in hilly and mountainous areas

In Kamikawa Town located almost at the center of Hyogo Prefecture, residents are aging and population is declining as is the case with other hilly and mountainous areas. A major challenge there is how to use vacant houses scattered around the town. It has promoted an initiative to invigorate the local community by accepting urban residents willing to live in vacant houses.

In 2010, contractors and local resident representatives established a “Kamikawa rural life promotion association” to promote urban residents’ moves to the town through rural life experience events, vacant house tours and vacant house restoration in cooperation with the town’s vacant house bank and vacant land management.

The association has hosted vacant house restoration workshops in which urban volunteers have learned vacant house refurbishment and repair know-how from local professionals. As a result, a total of 140 people moved to the town by FY2014 to live in refurbished vacant houses. Some of them opened their own shops. The association also opened two rural life experience centers using vacant houses and 11 shops (including six rural exchange centers) using vacant houses or shops. As a result, the annual number of visitors to the town reached about 700,000, contributing along with the increase in new residents to revitalizing the town.

(The initiative won an examination committee chair prize in the 13th All Right! Nippon Grand Prix)

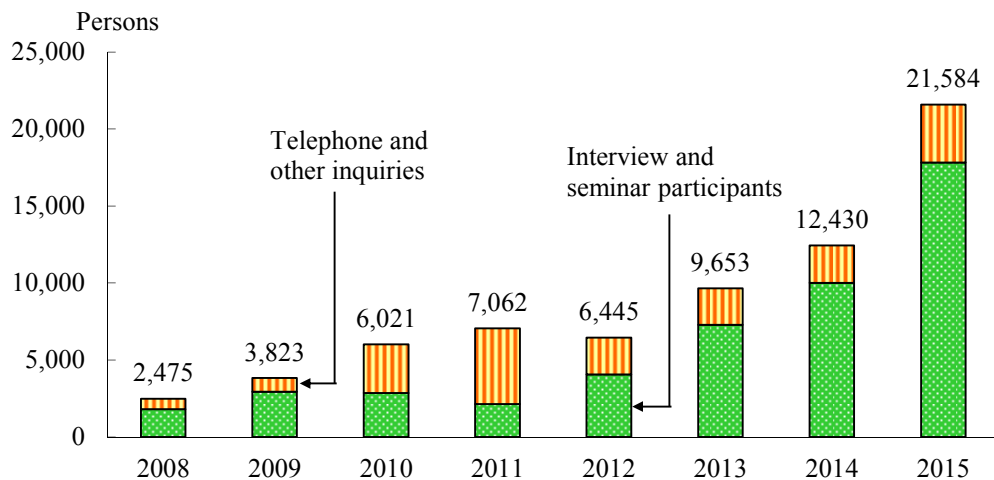


A vacant house restoration workshop

Various urban residents' moving to or settling in rural areas

As a growing number of urban residents hope to settle in rural areas, a system should be built to strategically develop exchanges between urban and rural residents into urban residents' moving to or settling in rural areas. Support should be proactively given for rural areas that try to secure and nurture women, elderly people, very experienced people and other people to shoulder the future invigoration of rural areas.

Changes in the number of people inquiring about moving



Source: Survey by Furusato Kaiki Shien Center

Promoting farm-inns and settlement to maintain and invigorate rural areas

Nakatsugawa is an area in Iide Town in southern Yamagata Prefecture, a region plagued with a declining and aging population. The area has launched Nakatsugawa community development council to promote farm-inns, and moving and settling.

In FY2014, a total of 1,165 tourists stayed at farm-inns in Nakatsugawa, invigorating exchanges between urban and rural areas and contributing to securing places for elderly people's activities.

In supporting moving and settling, the council has agriculture, life, employment and other specialized supporters to back up those hoping to move to and settle in Nakatsugawa. As a result, 15 people (seven families) have moved to the area since FY2011. These new residents have taken up various jobs including farming, café management and plant dyeing. In a bid to further invigorate the area through getting people to move to and settle in the area, the council has opened a website. It plans an initiative for new residents to provide consulting services to people hoping to move to and settle in Nakatsugawa and provide information to urban residents through social networking services.

(The council won the 12th All Right! Nippon Grand Prix)



Farm-inn owner



A new resident's house

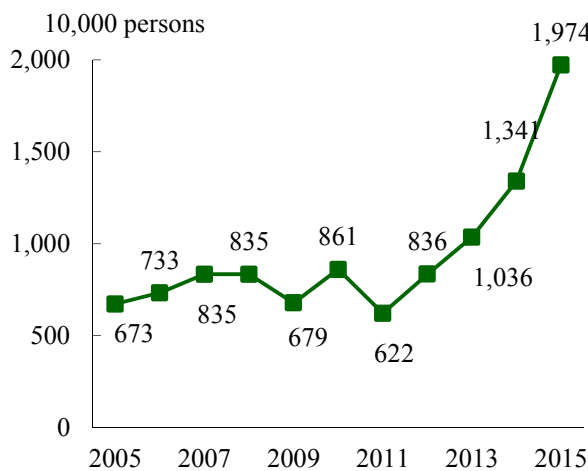
Demand for inbound travel and rural approaches

As foreigners interest in Japan have grown over recent years, the number of foreign tourists visiting Japan in 2015 hit a record high of about 19.74 million. Foreign tourists placed great expectations on Japanese food and dietary culture, spending about 640 billion yen on food and drinks in Japan.

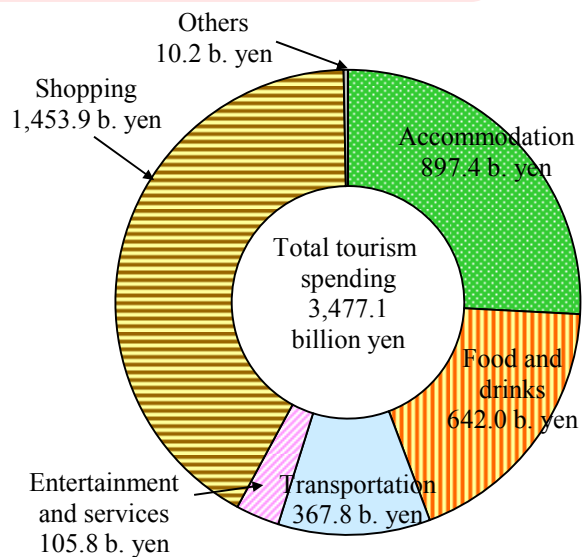
To attract foreign tourists, the number of which is expected to increase further, into rural areas, Japan must intensify various rural resources including local dishes, histories and landscapes, increase their added value and communicate them to foreigners. It is important to link these initiatives to developing agriculture, forestry and fisheries, and food manufacturers into growth sectors and invigorating agriculture and rural areas.

MAFF and the Japan Tourism Agency have formulated the logo “Japan. Farm Stay” for farm-inns that provide experience in agriculture, forestry and fisheries and are ambitious to accommodate foreign tourists, in a bid to brand such inns.

Changes in the number of foreign tourists visiting Japan and their spending breakdown (2015)



Source: Japan National Tourism Organization (JNTO)
(Released in January 2016)



Source: Japan Tourism Agency, “Survey on Consumption Trends for Foreign Visitors to Japan” (Released in January 2016)

Inviting foreign travel agencies to a farming and rural experience tour

Tono City in Iwate Prefecture is known as an advanced green tourism area. It was included in an inspection tour for foreign travel agencies under the VISIT JAPAN Travel Mart 2015 campaign sponsored by the JNTO. The Tono/Sumita Rural Experience Council accepted 30 people from 13 Western and Asian countries and impressed upon them the attractiveness of Japan’s farming and rural areas.

Meals, accommodation and harvest experiences at farm-inns certified for the “Japan. Farm Stay” program contributed to deepening the tour participants’ understanding about rural life, food and agriculture in Japan.

The inspection tour proved popular as participants voiced their plans to develop tours targeting Japanese agriculture and rural areas.

Given such needs, rural areas in Japan must urgently make arrangements to accept foreign tourists.

(Tono was selected in the 2nd Discover Countryside Treasures in Japan)

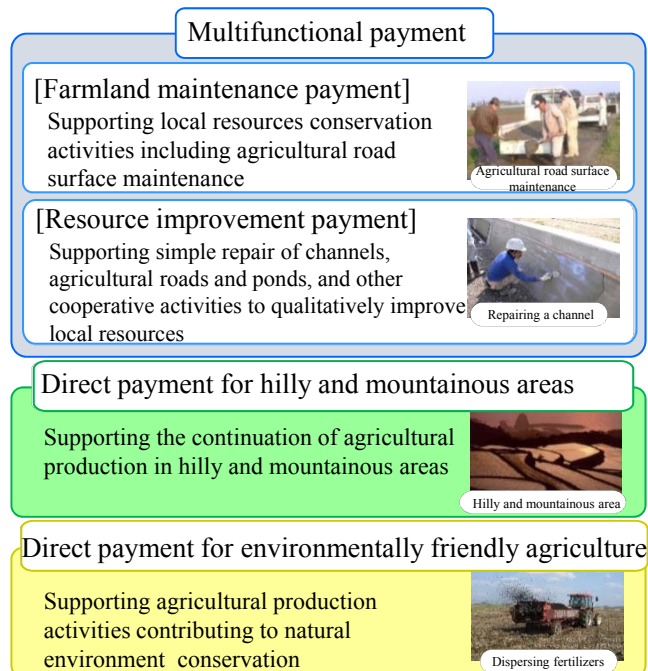


Experience of rice harvest

1 Maintaining and demonstrating multifunctional roles of agriculture and rural areas

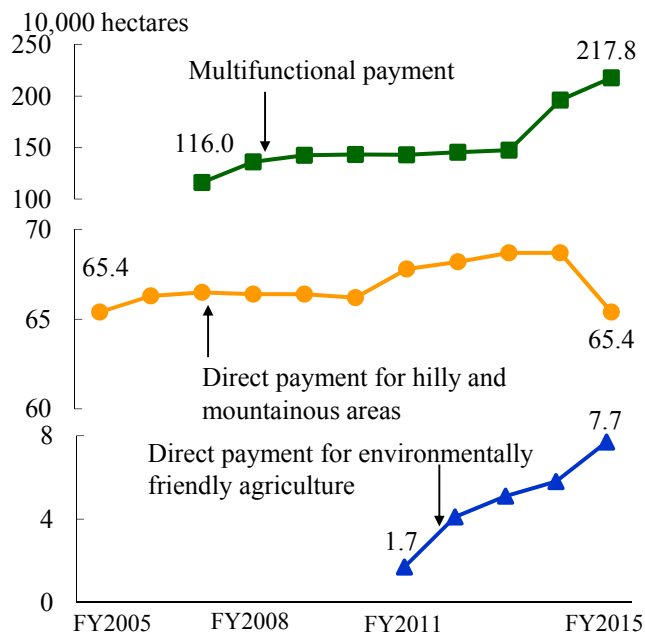
- Agriculture and rural areas have various roles including not only food supply but also national land conservation, water recharge, biodiversity conservation, good landscape formation and cultural succession. All people, including urban residents, have benefitted from these roles.
- In order to maintain and demonstrate these multifunctional roles, the government steadily implements Japanese agricultural direct payments (multifunctional payment, direct payment to farmers in hilly and mountainous areas, direct payment for environmentally friendly agriculture) to support regional cooperation backing such roles, agricultural production in hilly and mountainous areas and effective farming for environmental conservation.

Outline of the Japanese agricultural direct payment system



Source: MAFF

Changes in total area for initiatives subject to the Japanese agricultural direct payment system

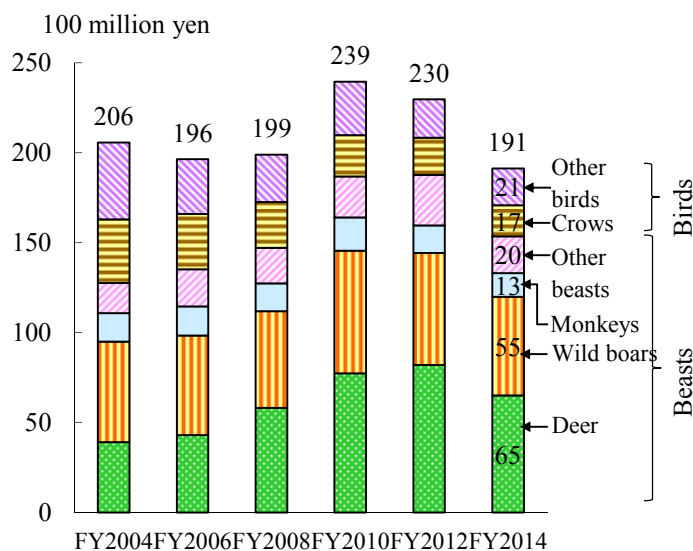


Source: MAFF surveys

2 Responding to wildlife damage

- Annual wildlife damage to farm products has remained around 20 billion yen in recent years. Such damage discourages farmers from continuing farming and encourages them to retire, bringing about more serious impacts than indicated by the damage value.
- While most wild animals captured to prevent wildlife damage are buried or incinerated, moves have made progress in recent years to utilize these wild animals as game meat for sales to restaurants and supermarkets.

Changes in crop damage by wildlife



Source: MAFF surveys

Branded game meat

Akan Green Farm in Akan, Kushiro, Hokkaido Prefecture, developed a meat processing facility with thorough sanitation and quality control and acquired the HACCP (Hazard Analysis and Critical Control Point) certification in 2005. The farm has secured stable Yezo sika venison supply by keeping deer captured with enclosure trapping at a ranch as well as receiving deer captured for wildlife damage prevention. It processes some 1,500 deer annually. Yezo sika venison processed at the facility has been branded. The farm has also developed canned Yezo sika venison, soup curry and other products, integrating meat processing and sales.

Yezo sika venison has been provided, in a traceable manner, to consumers in Hokkaido and to restaurants inside and outside the prefecture, establishing its position as a new regional resource.

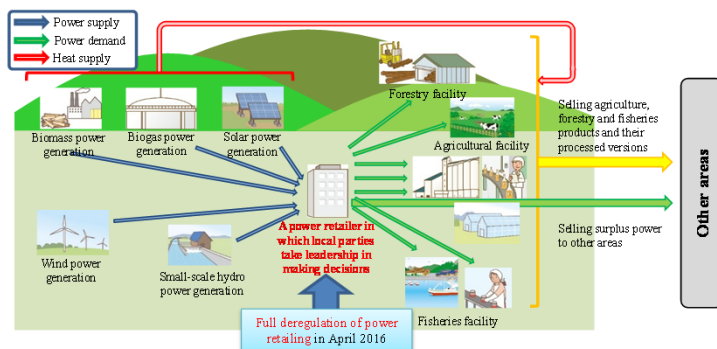


Branded Yezo sika venison

3 Proactive utilization of local resources

- Abundant local resources in rural areas should be utilized as renewable energy under the local leadership. Such energy should be locally produced and consumed to invigorate rural areas.
- Development of “Biomass Industrialized Area” which aim to create an eco-friendly community resilient to disasters, is promoted through the encouragement of industrialization utilizing regional biomass.

A rural area's future local production and consumption of renewable energy



Source: MAFF

Biogas power generation facility using local resources

In Hokkaido Prefecture's Betsukai Town, which is one of the biggest dairy farming areas in Japan and was selected as a biomass industrialized area in 2013, a biogas power generation facility using locally provided domestic animal wastes was completed in FY2015 under a core project of the Betsukai Town biomass industrialized area scheme.

The facility's design capacity is about 9,600 megawatt-hours per year covering 44.2% of power consumption by the town's 6,360 households. The facility is one of the largest biogas power plants using domestic animal wastes in Japan.

The facility plans to sell local dairy farmers digested slurry as by-products of fermentation, contributing to local dairy farming. Betsukai Town plans to continuously cooperate with the company in creating local jobs and revitalizing the area.

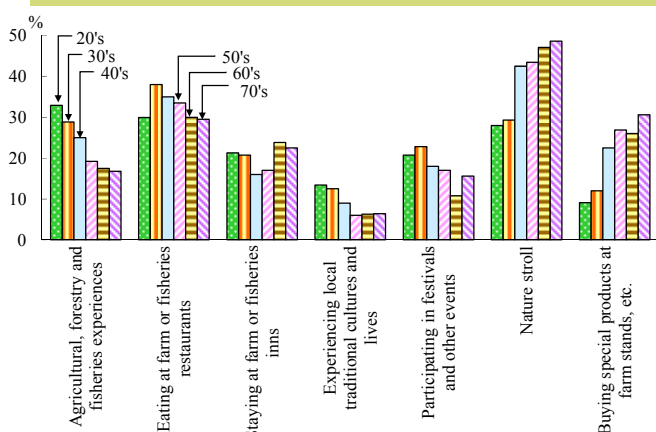


Biogas power plant

4 Exchanges between urban and rural areas through collaboration with various sectors

- Rural areas have various attractions for urban residents. The number of people staying at farm-inns has been rising along with the number of such inns. The younger generation is more interested in farming experiences.
- It is important to attract people to rural areas through exchanges between various fields such as education and welfare to trigger the creation of new business operations.

How to spend leisure time in rural areas – a breakdown by age group



Source: Japan Finance Corporation, “Consumer Trend Survey --1st half, FY2014” (released in September 2014)

Exchanges through experience-based educational tours

Suo-Oshima Town in Yamaguchi Prefecture established a Suo-Oshima experience-based tourism promotion council in 2008, launching the acceptance of experience-based educational tours.

Experiences including harvesting the special local product of orange were combined with staying at farm or fisheries inns for these tours, attracting 3,674 students in FY2015. The experience-based tours have won high ratings by participating students, school teachers and tour-accepting farming households.



Orange harvesting experience

Persons with disabilities play active roles in farming

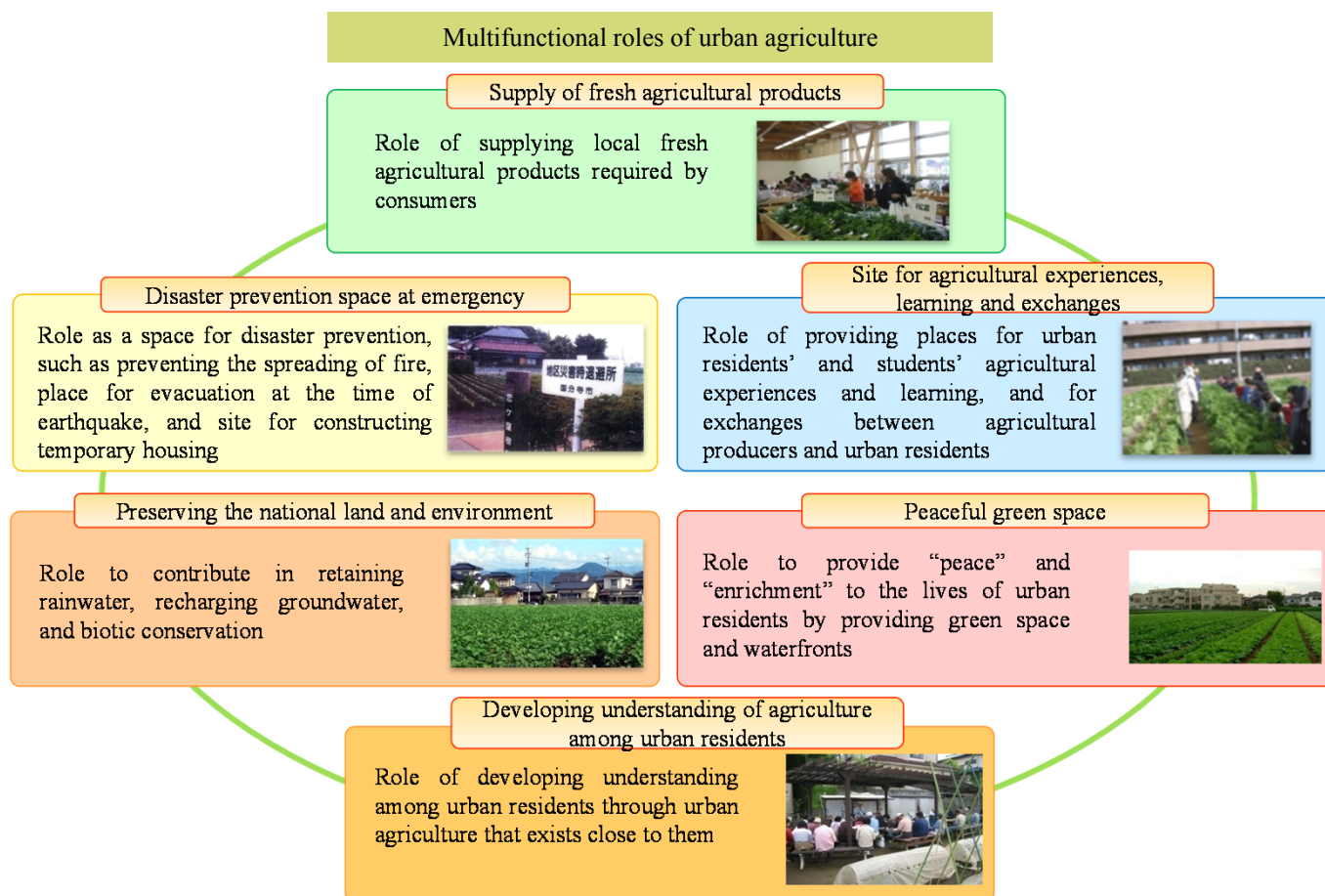
Social welfare corporation E.G.F. in Hagi City of Yamaguchi Prefecture runs a program in which persons with disabilities are engaged in seeding, harvesting and processing for melons, strawberries and vegetables according to their abilities. E.G.F. pursues genuine product manufacturing rather than subcontracting, offering a 2,500-yen pack of 12 organic strawberries and hand-peeled chestnuts in high demand. It makes strong sales efforts, selling farm products and their processed versions. Local residents seeing working persons with disabilities have increasingly asked E.G.F. to use their farmland. (Selected in the 2nd Discover Countryside Treasures in Japan)



People in farming operations

5 Promotion of urban agriculture

- Urban agriculture plays various roles including the production and supply of fresh agricultural products, the provision of disaster prevention space, the formation of good landscapes, the conservation of the national land and environment, and the provision of farming experience sites.
- Basic Act on Promotion of Urban Agriculture, which took effect in April 2015, provides a basic philosophy for providing these various functions and calls for creating the Basic Plan for Promoting Urban Agriculture to push necessary policy measures.



Source: MAFF

Activities of a young farmers' group in a suburban area

Six local farming successors in their 20's in Yokosuka City of Kanagawa Prefecture formed a group called "Wakozu" (young cultivators) in November 2012. While producing the special local products such as cabbage and other vegetables, the group takes advantage of urban agriculture close to consumption areas for conducting proactive exchanges with consumers, shipping agricultural products to local farm posts and restaurants. In the area, some consumers are making a point of buying vegetables produced by the visible Wakozu, while some restaurants offer dishes using Wakozu vegetables. Producers and consumers have thus developed mutually beneficial relationships. The Wakozu are attracting attention as a group of young suburban farmers who proactively use blogs and social networking services to provide information from the viewpoint of young farmers.



Wakozu

Chapter 4 Restoration/Reconstruction from the Great East Japan Earthquake

1 Earthquake and tsunami damage and restoration/reconstruction efforts

(1) Farmland/farming facility restoration

- The Great East Japan Earthquake inflicted damage worth 2,384.1 billion yen on the agriculture-forestry-fisheries sector (including 904.9 billion yen for the agriculture sector).
- Under the Basic Guideline for Reconstruction of Agriculture and Rural Communities after the Great East Japan Earthquake, among farmland affected by the tsunami covering 21,480ha, it became possible to restart farming in 15,920ha (74%) by the end of January 2016. Restoration projects will continuously be implemented according to schedule in FY2015 and after, while also promoting expansion of the segmentation of farmland.
- Of the 98 major drainage pump stations required to be restored, restoration has been completed or is being implemented for 91 stations (93%).

Farmland/farming facility restoration conditions (at the end of January 2016)

Item	Damage details	Progress in restoration (%)				
		0	20	40	60	80
Farmland	Tsunami-damaged farmland in six prefectures →21,480ha	15,920ha Available for resuming farming: 74%				
Major drainage pump stations	98 drainage pump stations required to be restored	91 stations Restored or being restored: 93%				

Source: MAFF

(2) Agriculture reconstruction

- The number of farms in the three most damaged prefectures stood at 139,000 in 2015, down 22.5% from 2010 before the 2011 disaster. Meanwhile, the number of corporation farms in the three prefectures came to 2,007 in 2015, up 29.3% from 2010.
- To resume farming and recover farming income, local farmers must introduce cooperative, large-scale and other new farming and distribution systems, as well as new product items and advanced production and management know-how, and address sales challenges including the exploration of new buyers.

Number of farms in the three most damaged prefectures

	(Unit: Farms)	
	Farms	Corporation farms
2010	179,396	1,552
2015	139,022	2,007
Change (%)	-22.5	29.3
(Reference) [Nationwide] change (%)	-18.0	25.3

Source: MAFF, "2015 Census of Agriculture and Forestry"

Food-attached information journal linking producers and consumers in disaster-affected areas

Tohoku Kaikon, a specified non-profit corporation in Hanamaki City, Iwate Prefecture, launched "Tohoku Taberu Tsushin" as a food-attached information journal in July 2013.

The Tohoku Region, while proceeding with reconstruction after the disaster, is plagued with problems such as difficult lives for farming successors and farmers' unwillingness to have children inherit farming.

Representative Director Takahashi thought that linking separated producers to consumers through information would be the key to revitalizing the primary industry and started a "food reform for social reform" initiative. Believing that informing consumers of the value of food products and of what goes on behind the scenes during production, rather than selling them alone, would lead consumers to eat these products with passion, Takahashi created the journal. Takahashi plans to continuously link producers to consumers through the journal and promote initiatives for leading urban consumers to visit rural areas.



Tohoku Taberu Tsushin



Tohoku Kaikon members

2 Impacts of the accident at the Fukushima Daiichi Nuclear Power Plant of the Tokyo Electric Power Company and restoration/reconstruction efforts

- MAFF has supported efforts toward the resumption of farming in the evacuation areas such as the conservation and management of decontaminated farmland and pilot farming.
- To allow only agricultural and livestock products with radiation readings below the safety standards to be distributed, the government has combined radioactive material reduction and absorption restriction measures with post-harvest inspections to secure safety. These initiatives have substantially reduced agricultural and livestock products that exceed the safety standard levels for radioactive materials. The numbers of products and areas subject to shipment restrictions have declined.

Promoting local chicken for reconstruction

Kawamata Town in Fukushima Prefecture has developed the Kawamata Shamo gamecock, which is juicy and rich while just as resilient as ordinary gamecocks. It has launched a public corporation for producing baby birds and processing and selling gamecock products, which has built a stable shipment system along with 14 farming households that grow the gamecocks.

Due to the Fukushima Daiichi Nuclear Plant accident triggered by the Great East Japan Earthquake, however, Kawamata Shamo sales in the year after the disaster year plunged 40%. The corporation developed indoor poultry growing facilities and conducted steady sales promotion to explore new sales channels. In 2014, shipments totaled about 65,000 birds, exceeding the pre-disaster level, with the sales value recovering. In the town, many “Kawamata Shamo” banners are seen, with the chicken established as a material for ramen noodles and *oyakodon*, a bowl of rice topped with broiled chicken and eggs.

In the future, the town plans to promote the Kawamata Shamo for reconstruction under the annual sales target of 80,000 birds.



Kawamata Shamo being grown

Ratios of agricultural and livestock products exceeding radioactive safety standards (17 prefectures)

(Unit: %)

Category	Until the end of FY2011	FY2012	FY2013	FY2014	FY2015
Rice	2.2	0.0008	0.0003	0.00002	0
Wheat and barley	4.8	0	0	0	0
Pulse	2.3	1.1	0.4	0.1	0
Vegetables	3.0	0.03	0	0	0
Fruits	7.7	0.3	0	0	0
Tea	8.6	1.5	0	0	0
Other cultivated plants (including buckwheat)	3.2	0.5	0	0	0.1
Raw milk	0.4	0	0	0	0
Meat and eggs (excluding wildlife meat)	1.3	0.005	0	0	0

Source: Prepared by MAFF from data provided by MHLW and local governments

Note: As of March 28, 2016

- Given lingering harmful rumors about food products, the government enhanced countermeasures against harmful rumors by promoting measures against polluted water and disseminating accurate radiation risk information in Japan and other countries.
- Many foreign countries and regions tightened their import control measures on Japanese agricultural, forestry and fisheries products including food due to the Fukushima Daiichi nuclear power plant accident. As a result of negotiations with those countries and regions, some of them have relaxed or abolished these control measures.

Major initiatives under principles for strengthening countermeasures against harmful rumors and their future directions

Principle 1. Remove the source of harmful rumors

Thorough implementation of radiation tests based on the world's toughest standards.

As in the past, products exceeding the safety standards will not be allowed to enter the market.

Principle 2. Provide accurate and plain information to prevent rumors

Four years after the disaster, more than 400 meetings have been held for exchange of opinions

MAFF will continuously provide accurate and plain information in cooperation with other relevant government agencies and local governments.

Principle 3. Support industries suffered from harmful rumors

- The total number of “Eat to Support” initiatives reached 1,106 by the end of March 2015.
- Distributors are advised to negotiate with local agricultural cooperatives.

- Distributors will be requested to restore shelves for products from disaster-affected areas.
- The government will continue to explain and make requests to relevant foreign countries to remove their import restrictions.

Example of countries and regions which have relaxed or abolished their import control measures

[US] April, May and August 2015, January, February and March 2016
Import suspension (Fukushima and 3 other prefectures) → removal (some items)

[Thailand] May 2015

Lifting restrictions (excluding those on some wild animals)

[Russia] July 2015

Import suspension (fisheries products from 8 prefectures) → Lifting suspension for Aomori Prefecture (allowing imports with inspection certificates)

[EU] January 2016

Reducing areas and products subject to certificates of inspection and origin (excluding vegetables and fruits [other than persimmon], livestock products, soba noodles, tea, etc. in Fukushima Prefecture from those subject to certificates of inspection)

[India] February 2016

Lifting restrictions

* As of March 2016, 12 countries/regions including Hong Kong, Taiwan, China and South Korea maintain suspension of import from certain regions including Fukushima Prefecture

Source: Prepared by MAFF based on materials from the Reconstruction Agency

Source: MAFF

Summary of FY2016 Measures for Food, Agriculture and Rural Areas

Summary

Policy priorities, fiscal measures, legislative actions, tax measures, monetary measures, policy assessment

I Measures to maintain and improve Japan's food self-sufficiency potential and ratio

- Initiatives to maintain and improve Japan's food self-sufficiency potential and ratio
- Measures to realize the production effort target for each major item

II Measures for securing a stable supply of food

- Securing of food safety compatible with international trends and securing of consumer confidence
- Promotion of food and nutrition education by various people concerned, expansion of consumption of domestic agricultural products, and the preservation/succession of WASHOKU (traditional dietary cultures of the Japanese)
- Exploration of demand through the creation of new values through production, processing and distribution stages
- Strategic exploration of global market
- Establishment of comprehensive food security compatible with various risks
- Strategic reactions to international negotiations

III Measures for sustainable development of agriculture

- Development/securing of business farmers for realizing a strong and sustainable agricultural structure
- Development of an environment wherein women farmers can fully exert their potential capacity
- Consolidation of farmland to business farmers and securing of farmland through full-capacity operation of the Public Corporations for Farmland Consolidation to Core Farmers through Renting and Subleasing (Farmland Banks)
- Promotion of the Farming Income Stabilization Measures for business farmers and consideration of the income insurance, etc.
- Development of an agricultural production base that contributes to the acceleration of structural reform and building national resilience
- Reform of production/supply systems compatible with changes in the demand structure, etc.
- Technological innovation, etc. at production/distribution sites for realizing cost reduction and high added value
- Promotion of environmental policy such as responses to climate change

IV Measures for promotion of rural areas

- Maintenance/succession of local resources through steady promotion of the multifunctional payment system and performance of local community functions
- Creation of employment and income through active utilization of various local resources
- Exchanges between urban and rural areas and migration/settlement to rural areas through collaboration with various sectors

V Measures for restoration/reconstruction from the Great East Japan Earthquake

VI Measures for reorganization/restructuring of relevant bodies

VII Matters necessary for comprehensively and systematically promoting measures for food, agriculture and rural areas

[Definitions]

1. Basic statistical terminology

(1) Classification of agriculture management entities (definitions used since the 2005 Census of Agriculture and Forestry)

Terminology	Definition
Agriculture management entities*	An establishment that either performs agricultural production directly or on contract and fulfills one of the following conditions: (1) manages 30 ares or more cultivated land, (2) possesses a planted area or cultivated area or a number of livestock being raised or delivered that is equal to or greater than a predetermined standard (e.g. 15 ares for outdoor grown vegetables, 350 square meters for vegetables grown in facilities, one cow), (3) accepts farm work on contract. (Censuses from 1990 to 2000 regard agriculture management entities as the combination of commercial farm households, agricultural holdings other than a farm household, and agricultural service enterprises.)
Family management entities	Individual management entities (farm household) or a single-household corporation (a farm household that is incorporated).
Organized management entities	Agriculture management entities that do not fall under family management entities.
Individual management entities	Agriculture management entities that operates as a household. This category excludes single-household corporations.
Corporation management entities	Agriculture management entities that has been incorporated. This category includes single-household corporations.

*“Agriculture management entities” is described as “Farms” in this annual report.

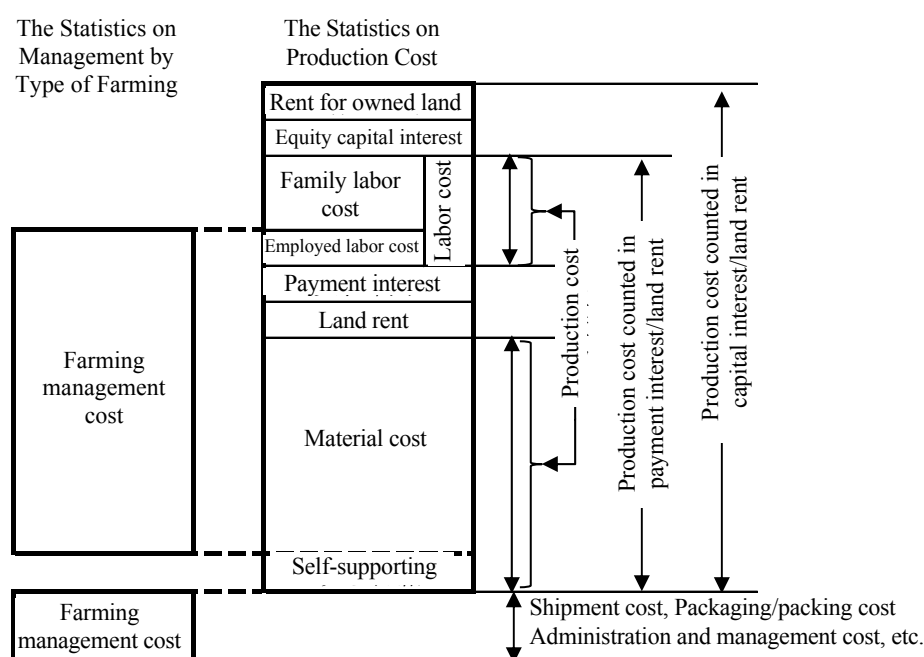
(2) Classification of farm households (definitions used since the 1990 World Census of Agriculture and Forestry)

Terminology	Definition
Farm household	Household engaged in farming and managing cultivated land of 10 ares or more, or earning more than 150,000 yen per year from sales of agricultural products.
Commercial farm household	Farm household managing cultivated land of 30 ares or more, or earning more than 500,000 yen per year from sales of agricultural products.
Business farm household	Farm household whose main source of income (50% or more) is farming, and which possess at least one family member under the age of 65 who is engaged in self-employed farming for more than 60 days a year.
Semi-business farm household	Farm household whose main income (50% or more) is from sources other than agriculture and which possess at least one family member under the age of 65 who is engaged in self-employed farming for more than 60 days a year.
Side-business farm household	Farm household without any members under the age of 65 engaged in self-employed farming for more than 60 days a year (farm households other than business and semi-business farm households).
Full-time farm household	A farm household without family members who are part-time farmers.
Part-time farm household	A farm household with one or more members who are part-time farmers.
Farm household earned main income from farming	A part-time farm household gaining more income from farming than other work
Farm household earned main income from other jobs	A part-time farm household gaining more income from work other than farming.
Non-commercial farm household	A farm household managing cultivated land of less than 30 ares, and earning less than 500,000 yen per year from sales of agricultural products
Agricultural holding other than farm household	A holding other than farm household managing cultivated land of 10 ares or more, or earning 150,000 yen or more per year from sales of agricultural products.
Agricultural service enterprise	An enterprise conducting farm work on contract (including enterprise other than agricultural holding, specializing in production and sale of seedlings).
Land tenure non-farm households	A household other than a farm household possessing 5 ares or more in cultivated land and abandoned cultivated land

(3) Farm household economics

Terminology	Definition
Total income	Agricultural income + Income from agriculture-related production + Nonagricultural income + Income from pensions, etc.
Agriculture income	Gross agricultural income (total income from farming) – Agricultural expenditures (all expenses necessary for farming)
Income from agriculture-related production	Earnings from agriculture-related production (earnings from businesses such as agricultural processing, farm-inns, restaurants and tourist farms, which are related to agriculture and managed by individuals engaged in farming) - Expenditures from agriculture-related production (expenditures such as labor and material costs required for the aforementioned businesses)
Non-agriculture income	Non-agriculture earnings (e.g. earnings from independent part-time nonagricultural businesses, salaries and wages) - Non-agriculture expenses (e.g. expenses for independent part-time non-agricultural businesses, transportation expenses for commuting)
Production cost	The production cost is the total cost (combining property and labor costs) for production of farm products minus by-product values
Material cost	The material cost combines liquid goods costs (seeding, fertilizers, agricultural chemicals, heating, lighting, power and other materials costs) and depreciation costs for fixed goods (depreciable assets including buildings, automobiles, agricultural machines and production management equipment).
Land rent	The land rent for a crop subject to the survey is calculated by multiplying the actually paid farm rent by the contribution rate for the relevant crop.
Interest payment	Interest payments are classified by use of underlying loans and multiplied by a contribution rate for a crop subject to the survey to calculate the borrowed capital interest to be shouldered by the crop.
Family labor cost	The family labor cost is calculated by multiplying family working hours by an average hourly wage as computed based on wage data for business establishments with five to 29 workers in the construction, manufacturing and transportation/postal industries in the Monthly Labor Survey Report (by the Ministry of Health, Labor and Welfare).
Employed labor cost	The employed labor cost represents wages paid to workers employed on an annual, seasonal or daily basis for producing farm products. Boarding and material compensations are assessed based on market prices. The cost includes rewards paid separately from wages.
Equity capital interest	The equity capital interest is calculated by multiplying equity capital – gross capital minus debt capital – by an annual interest rate of 4%.
Rent for owned land	The rent for owned land is based on a rent for similar farmlands (having capabilities similar to the farmland for a crop subject to the survey) within the same region.

Relationship between agricultural expenditures and production cost



Note: Actually, by-product values are deducted from "production cost," "production cost counted in payment interest/land rent" and "production cost counted in capital interest/land rent."

(4) Agricultural labor by farm household members

		Labor status				Household member	
		Engaged only in self-employed farming	Engaged in both self-employed farming and other work		Engaged in other work only	Not engaged in any work	As a rule, people who live and earn a living together (1) Core persons mainly engaged in farming Among household members involved in self-employed farming (population engaged mainly in farming), those who are working mainly in agriculture during regular hours. (2) Population mainly engaged in farming Persons engaged only in self-employed farming, or persons who are also engaged in work other than farming but spend more time engaged in farming on a yearly basis. (3) Household members engaged in own farming Household members 15 years old and over who are engaged in self-employed farming for more than one day per year. - Full-time farmers Among persons engaged mainly in farming, those who are engaged in self-employed farming for more than 150 days per year
			Mainly self-employed farming	Mainly other work			
Status during regular hours	Engaged mainly in work	<div><div><div>Core persons mainly engaged in farming (1)</div><div>Population mainly engaged in farming (2)</div></div><div>Household members engaged in own farming (3)</div></div>					
	Engaged mainly in housework and child rearing						
	Other						

(5) Newcomers in agriculture (definition used in the survey on Newcomers in Agriculture)

		Type of involvement in farming			Newcomers in agriculture Defined as individuals who fulfill one of the following conditions: (1) New self-employed farmers Members of farm households whose living status has changed anytime within a year of the survey date from “student” or “employed in other work” to “new graduate who has become a farmer” or “a new farmer who changed occupations”. (2) New employed farmers Persons engaged in farming who have been hired by corporations anytime within a year of the survey date and work for their employers for 7 months a year or more. (3) New entries Persons responsible for farming started anytime within a year of the survey date by securing land and funds on their own, and their partners - Entrants to farming soon after graduation from school Self-employed farmers who have changed their status from “student” to “engaged mainly in farming”, as well as employed farmers who were recently students.
		Self-employed farming	Employed fulltime by corporations, etc.	Just entering farming	
Status before farming	Student	<div><div>Entrants to farming soon after graduation from school</div><div><div>New self-employed farmers</div><div>(1)</div></div><div><div>New employed farmers</div><div>(2)</div></div><div><div>New entries</div><div>(3)</div></div></div>			
	Employed in other work				
	Engaged in housework and child rearing / Other				

(6) Classification of agriculture area

Terminology	Definition
Classification of agriculture area	Classification of former cities, wards, towns, and villages (hereinafter referred to as “municipalities”) based on fundamental conditions (e.g. the rate of cultivated land or forest land and grazing land area, gradient of farmland) that define the structure of agriculture area.
Category	Standard index (fulfills one of the following conditions)
Urban area	<ul style="list-style-type: none"> - Former municipalities where the rate of DID is 5% or more of habitable land, and which have either a population density of 500 or more or have a DID population of 20,000 or more. - Former municipalities where the rate of residential area is 60% or more of habitable land, and which have a population density of 500 or more. <p>Regions where the rate of forest land and grazing land are 80% or more of the total area are excluded.</p>
Flat farming area	<ul style="list-style-type: none"> - Former municipalities where the rate of cultivated land accounts for 20% or more of the total area and the rate of forest land and grazing land account for less than 50% of the total area. However, areas where the total area of all paddy fields with gradients of 1/20 or more and upland fields with gradients of 8° or more account for 90% or more of the total area are excluded. - Former municipalities where the rate of cultivated land accounts for 20% or more of the total area and the rate of forest land and grazing land account for 50% or more of the total area, and where the total area of all paddy fields with gradients of 1/20 or more and upland fields with gradients of 8° or more account for less than 10% of the total area.
Hilly farming area	<ul style="list-style-type: none"> - Former municipalities other than urban and flat farming area where the rate of cultivated land is less than 20% of the total area. - Former municipalities other than urban and flat farming area where the rate of cultivated land is 20% or more of the total area
Mountainous farming area	<ul style="list-style-type: none"> - Former municipalities where the rate of forest land and grazing land is 80% or more and the rate of cultivated land is less than 10% of the total area.
<p>Notes: 1) Order of priority: Urban area → Mountainous farming area → Flat and hilly farming area</p> <p>2) As a rule, DID (Densely Inhabited Districts) are defined as areas where basic district units, as defined by the national census, with populations densities of 4,000 per km² or more are adjacent to each other and the total population of these conjoined districts is 5,000 or more.</p> <p>3) Gradient refers not to the gradient of cultivated land per parcel, but to the main topographical gradient as grouped land.</p> <p>4) The combination of the hilly and mountainous farming area categories is referred to as hilly and mountainous area.</p> <p>5) Former municipalities are those that were classified as of February 1, 1950.</p>	

(7) Designated areas under rural promotion acts

Terminology	Definition
“Designated rural areas” under the Act for the Promotion of Infrastructure Development for Vitalization of Agriculture and Forestry in Designated Rural Areas	(Designated rural areas meet any of the first, second and third conditions, and the fourth one below) 1 Paddies on slopes with a gradient of one-20th or more account for 50% or more of the total paddy area that captures 33% or more of the total cultivated land. 2 Upland fields on slopes with a gradient of 15 degrees or more account for 50% or more of the total upland field area that captures 33% or more of the total cultivated land. 3 The ratio of forest and grazing land is 75% or more. 4 Agricultural and forested areas account for 81% or more of the total land area, or persons engaged in agriculture or forestry account for 10% or more of the population aged 15 or more, etc.
“Developing mountain villages” under the Mountain Villages Development Act	<ul style="list-style-type: none"> ○ The ratio of forest and grazing land is 75% or more (1960 forestry census). ○ Population density is 1.16 persons per hectare or less (1960 forestry census), etc.
“Underpopulated areas” under the Act on Special Measures for Promotion for Independence for Underpopulated Areas	Underpopulated areas meet any of the first to three conditions below: 1 Meeting (1) and (2) (1) Population requirement: Any of the following is met 1) Population decline from 1960 to 1995 was 30% or more. 2) Population decline from 1960 to 1995 was 25% or more and the ratio of elderly people (aged 65 or more) in 1995 was 24% or more. 3) Population decline from 1960 to 1995 was 25% or more and the ratio of young people (aged between 15 and 29) in 1995 was 15% or less. 4) Population decline from 1970 to 1995 was 19% or more. In cases 1), 2) and 3), however, communities with a population decline of 10% or more over 25 years from 1970 to 1995 are excluded. (2) Financial capability requirement: The three-year average financial capability index between FY1996 and FY1998 was 0.42 or less, and income from public racing was 1.3 billion yen or less. 2 Meeting (1) and (2) (1) Population requirement: Meeting any of the conditions below: 1) Population decline from 1960 to 2005 was 33% or more. 2) Population decline from 1960 to 2005 was 28% or more and the ratio of elderly people (aged 65 or more) in 2005 was 29% or more. 3) Population decline from 1960 to 2005 was 28% or more and the ratio of young people (aged between 15 and 29) in 2005 was 14% or less. 4) Population decline from 1980 to 2005 was 17% or more. In cases 1), 2) and 3), however, communities with a population decline of 10% or more over 25 years from 1980 to 2005 are excluded. (2) Financial capability requirement: The three-year average financial capability index between FY2006 and FY2008 was 0.56 or less, and income from public racing was 2.0 billion yen or less. 3 Meeting (1) and (2) (1) Population requirement: Meeting any of the conditions below: 1) Population decline from 1965 to 2010 was 33% or more. 2) Population decline from 1965 to 2010 was 28% or more and the ratio of elderly people (aged 65 or more) in 2010 was 32% or more. 3) Population decline from 1965 to 2010 was 28% or more and the ratio of young people (aged between 15 and 29) in 2010 was 12% or less. 4) Population decline from 1985 to 2010 was 19% or more. In cases 1), 2) and 3), however, communities with a population decline of 10% or more over 25 years from 1985 to 2010 are excluded. (2) Financial capability requirement: The three-year average financial capability index between FY2010 and FY2012 was 0.49 or less, and income from public racing was 4.0 billion yen or less.
“Peninsula promotion measures implementation area” under the Peninsula Promotion Act	<ul style="list-style-type: none"> ○ An area that is surrounded by sea in three directions, has lagged behind other areas in developing industrial infrastructure and a living environment due to less flatland, poor water resources and other constraints on national land resources use, covers two or more municipalities and has certain social and economic sizes.
“Remote island development measures implementation area” under the Remote Islands Development Act	<ul style="list-style-type: none"> ○ A remote island area where measures are recognized as required to promote the independent development of a remote island playing key roles in maintaining Japan’s territory and exclusive economic zone, using marine resources and conserving natural environments and to stabilize livelihoods for island residents and improve their welfare.

(8) Agricultural regions nationwide

Agricultural region	Prefecture	Agricultural region	Prefecture
Hokkaido	Hokkaido	Kinki	Shiga, Kyoto, Osaka, Hyogo, Nara, Wakayama
Tohoku	Aomori, Iwate, Miyagi, Akita, Yamagata, Fukushima	Chugoku Sanin Sanyo	Tottori, Shimane Okayama, Hiroshima, Yamaguchi
Hokuriku	Niigata, Toyama, Ishikawa, Fukui	Shikoku	Tokushima, Kagawa, Ehime, Kochi
Kanto/Tosan Northern Kanto Southern Kanto Tosan	Ibaraki, Tochigi, Gunma Saitama, Chiba, Tokyo, Kanagawa Yamanashi, Nagano	Kyushu Northern Kyushu Southern Kyushu	Fukuoka, Saga, Nagasaki, Kumamoto, Oita Miyazaki, Kagoshima
Tokai	Gifu, Shizuoka, Aichi, Mie	Okinawa	Okinawa

2. Basic Terminology

AFFrinnovation	AFFrinnovation means initiatives for agriculture, forestry and fisheries operators to voluntarily cooperate with others to comprehensively and integrally promote agriculture, forestry and fisheries as the primary industry, manufacturing as the secondary industry and retailing as the tertiary industry to utilize regional resources for producing new added value.
Agricultural irrigation facilities	These facilities are roughly divided into two types -- irrigation facilities for providing irrigation water for farmlands and sewerage facilities for discharging surplus surface and soil water at farmlands. Irrigation facilities include dams and other water storage facilities, water intake facilities such as weirs, drains, pumping facilities, circular tank diversion works, farm ponds and other water supply and distribution facilities. Sewerage facilities include drainage canals and drainage pump stations. In addition, there are water control facilities to monitor, control and operate irrigation and sewerage facilities.
Agricultural producers' cooperative corporation	According to the Agricultural Cooperative Act, more than three farmers are necessary to establish such as corporation. These corporations are meant to facilitate cooperation in agricultural production between cooperative members and increase common profit. There are two types of these corporations. One aims to establish communal facilities for equipment and resources or promote communalization of agricultural operations, and the other aims to manage a corporation agricultural business such as farming. Both are called agricultural producers' cooperative corporations.
Agricultural production legal person (or corporation)	This is a legal person that can acquire rights to farmland and satisfy all of the following requirements: (1) Requirements for incorporation (a stock corporation [not a publicly traded company], a membership company or agricultural producer's cooperative corporation), (2) Requirements for business operations (main business is farming), (3) Requirements for members of the corporation (farming people account for at least three quarters of the voting rights), (4) Requirements for executives (the majority of executives are engaged in farming full time).
Biomass	Biomass means organic resources of flora and fauna origin, excluding fossil resources. Biomass is made by organisms that create organic matter from inorganic water and CO ₂ through photosynthesis using solar energy falling on the earth. This type of resources is renewable throughout its life cycle as long as there are organisms and solar energy.
Calorie supply (Calorie intake)	Calorie supply refers to the total amount of calories from food that is supplied to the public, and calorie intake refers to the total amount of calories actually consumed by the public. As a rule, the value for calorie supply is taken from the Food Balance Sheet issued by the Ministry of Agriculture, Forestry and Fisheries, while the value for calorie intake is taken from the National Health and Nutrition Examination Survey issued by the Ministry of Health, Labor

	and Welfare. Although it is necessary to keep in mind that calculations for both values are entirely different, since the calorie supply value includes leftovers and food destroyed in the distribution stage, the difference between this value and calorie intake can be used as an approximate measure of food wastes including food residue emerging inevitably in food industry processes, home food leftovers, etc.
Certified farmer (system)	The certified farmer system certifies plans for improving agricultural management drafted by farmers to attain targets for efficient and stable farm management in basic plans prepared by municipal governments to meet their respective conditions under the Agricultural Management Framework Reinforcement Act. For certified farmers, or those whose plans have been certified, various measures are primarily implemented, including low interest financing from the Super L loan system and other programs, measures to prevent mobilization of farmlands and infrastructure improvement efforts to support business farmers.
Community based farm cooperatives	These farm cooperatives consist of farming households in certain regions that have developed a relationship through the local community or other geographical bases. In these cooperatives, farming households conduct agricultural production as a collaborative enterprise. Adopting the three basic tenets of (1) aggregation of diverted paddy fields, (2) communal use of communally purchased equipment and (3) communalization of the entire farming process from production to marketing with farming leaders playing a central role. These cooperatives take different forms and approaches depending on their geographical location.
Dilapidated farmland	A dilapidated farmland is a farmland that has been left uncultivated and dilapidated due to the abandonment of cultivation and is viewed objectively as unable to be used for growing crops with conventional farming methods.
Direct seeding (rice)	Direct seeding, where rice seeds are directly scattered into paddies, can skip seedling-raising and transplanting steps required for the conventional practices including transplanting. There are various direct seeding methods, which are roughly divided into two groups – flooded direct seeding where seeds are scattered into flooded paddies after plowing and soil puddling, and dry direct seeding where seeds are scattered into non-flooded paddies.
Farmland concentration and intensification	Farmland “concentration” means owning or leasing farmland to expand farmland for utilization. Farmland “intensification” means exchanging farmland use rights to allow farming to be conducted continuously without difficulty.
Food security	As for food security in Japan, the Food, Agriculture and Rural Areas Basic Act states, “Even in the case that domestic supply is insufficient to meet demand or is likely to be for a certain period, due to unexpected situations such as a bad harvest or interrupted imports, the minimum food supply required for the people shall be secured in order not to be a hindrance to the stability of peoples' lives and smooth operation of the national economy.” As for global food security, meanwhile, the Food and Agriculture Organization (FAO) states, “Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.” This widely accepted definition points to the following dimensions of food security: the availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (food availability), the legal, political, economic and social entitlements of individuals to access foods for a nutritious diet (food access), utilization of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met (utilization), and stable access to adequate food at all times for a population household or individual (stability).
Food self-sufficiency potential	This concept expresses the potential capacity of food production in the Japanese agriculture, forestry and fisheries sectors. The components of the food self-sufficiency potential for agricultural production are agricultural resources such as farmland and irrigation systems, agricultural technology, and people engaged in farming. The components of the food self-sufficiency potential for fishery production are potential production volume and people

	<p>engaged in fishery.</p> <ul style="list-style-type: none"> ○ “Food self-sufficiency potential indicator” <p>Based on the premise that farmlands are fully utilized and calorie efficiency is maximized, this indicator shows the amount of calories which could be supplied per person per day in the Japanese agriculture, forestry and fisheries sector. The indicator is comprised of the following four patterns.</p> <p>(Pattern A) When major grains such as rice, wheat and soybeans are mainly cultivated by maximizing the calorie efficiency with certain consideration to nutritional balance</p> <p>(Pattern B) When major grains such as rice, wheat and soybeans are mainly cultivated by maximizing the calorie efficiency</p> <p>(Pattern C) When potatoes are mainly cultivated by maximizing the calorie efficiency with certain consideration to nutritional balance</p> <p>(Pattern D) When potatoes are mainly cultivated by maximizing the calorie efficiency</p>
Food self-sufficiency ratio	<p>This index indicates how much food for domestic consumption is being supplied by domestic sources.</p> <ul style="list-style-type: none"> - Self-sufficiency ratio for individual items: The following equation is used to calculate the self-sufficiency ratio on a weight basis for individual items. <div style="border: 1px solid black; border-radius: 10px; padding: 10px; margin: 10px 0;"> <p>Food self-sufficiency ratio calculation equation</p> $\text{Self-sufficiency ratio} = \frac{\text{Domestic production volume}}{\text{Supply for domestic consumption}}$ $= \frac{\text{Domestic production volume}}{\text{Domestic production volume} + \text{Import volume} - \text{Export volume} \pm \text{Fluctuations in inventory}}$ </div> <ul style="list-style-type: none"> - Total food self-sufficiency ratio: This ratio is an index for the total volume of food, and is expressed in both calorie basis and production value basis. Products made from domestic livestock raised with imported feed are not included in calculations. - Total food self-sufficiency ratio on calorie supply basis: Weight values for each item are converted to calories using the <i>Standard Tables of Food Composition in Japan</i> (2010), after which the calories of all items are totaled. This is equivalent to the ratio calculated by dividing the value for the sum of the domestic calorie supply per person per day by the value for the calorie supply per person per day. - Total food self-sufficiency ratio on production value basis: Weight values are converted to production values using farm gate prices and import prices from domestic agricultural price and trade statistics, after which all production values are totaled. This is equivalent to the ratio calculated by dividing the sum of the domestic production value of food by the total food supply value for domestic consumption. - Feed self-sufficiency ratio: This index indicates how much feed is being supplied by domestic sources, calculated in terms of total digestible nutrients (TDN) using the <i>Standard Tables of Feed Composition</i>.
Foot-and-mouth disease	<p>An animal disease caused by Foot-and-mouth disease virus which affects cloven-hoofed animals including cattle and pigs. FMD causes clinical signs such as vesicles/blisters on and within the mouth and feet which results in loss of productivity of infected animals. The mortality rate is several percent for adult animals but can exceed 50% for young animals. Due to the rapid spread, high infectivity and the lack of effective treatments, the World Organization for Animal Health (OIE) regards it as one of the most important infectious diseases. Meat of infected animals will not be placed on the market. The meat and milk derived from infected animals are safe for human consumption.</p>
GDP	<p>GDP stands for gross domestic product. GDP refers to the total of value added for all goods and services produced in a country within a designated time frame, which is usually one year. It is used as an index to measure domestic economic activity levels.</p>
Good Agricultural Practice (GAP)	<p>Good Agricultural Practices are continuous activities of improving agricultural production operations through the accurate implementation, recording, inspection and assessment of each process in agricultural production in line with checklists worked out according to relevant laws and regulations.</p>
Greenhouse gas (GHG)	<p>Greenhouse gases heat the earth's surface by absorbing and radiating a portion of infrared radiation reflected from the ground. The Kyoto Protocol designates carbon dioxide (CO₂),</p>

	methane (CH ₄ , generated by rice paddies and final waste disposal sites), dinitrogen monoxide (N ₂ O, generated during the process of manufacturing some raw ingredients for chemical products and from livestock waste), hydrofluorocarbons (HFCs, used as coolants for air conditioning devices), perfluorocarbons (PFCs, used in the production of semiconductors), sulfur hexafluoride (SF ₆ , used in the production of semiconductors) and nitrogen trifluoride (NF ₃ , used in the production of semiconductors; added in the second commitment period) as greenhouse gases that should be reduced.
HACCP	HACCP (Hazard Analysis and Critical Control Point) is a management system in which food safety is addressed through the analysis and control of biological, chemical and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product.
Idle farmland	An idled farmland meets either of two provisions in Item 1 Article 32 Agricultural Land Act. The first provision cites a farmland that is unused for cultivation and is expected to remain unused for the purpose. The second cites a farmland that is used far less than other farmlands in the vicinity.
Japanese dietary pattern	A nutritionally well-balanced dietary pattern, mainly eating rice, combined with various types of side dishes using fish, meat, milk/dairy foods, vegetables, seaweed, pulse, fruits and tea.
Multiple farming (entity)	Entity with less than 60% of the sales value of agricultural products is from the sales of the top sector.
Semi-multiple farming (entity)	Farming (or a farming entity) where sales in the biggest division account for 60% to less than 80% of total farm product sales.
Regulatory science	Regulatory science is a science to bridge scientific knowledge and regulatory and other administrative policies and measures. It includes both research to acquire scientific knowledge available for considering administrative policies and measures and administration to decide policies and measures based on scientific knowledge.
Total agricultural output	In agricultural production, the total agricultural output is the total output of all finally completed agricultural goods. It is the amount of the item-based production volume of agricultural products minus intermediate products such as seeds and fodder to prevent overlapping calculations, multiplied by the price of each item when delivered from the farms.
Traceability	This means the ability to trace and follow the movement of an agricultural product, processed product, or other food, from where the food came and to where the food went. The establishment and maintenance of records regarding movements of foods through all stages of production, processing and distribution enables identification of the movements from production to distribution and facilitates rapid withdrawal in the case of a food incident.
Value chain	A value chain is a process of adding value at each step of production, processing, distribution and sales that are organically connected to each other.
“WASHOKU; traditional dietary cultures of the Japanese”	In December 2013, the United Nations Education, Scientific and Cultural Organization registered “WASHOKU; traditional dietary cultures of the Japanese” as a UNESCO Intangible Cultural Heritage. “WASHOKU” is a social practice associated with food, embodying the Japanese people’s spirit of “respect for nature” with characteristics such as (1) various fresh ingredients and respect for their natural flavors, (2) nutritional balance that supports healthy diets, (3) emphasis on the beauty of nature and changing of seasons in the presentation and (4) deep ties to New Year’s and other regular annual events. It is considered that Japanese people as a whole promote its protection and succession.
WTO	The World Trade Organization (WTO) is an international organization established in January 1995 as a result of the Uruguay Round negotiations, which has set a wide variety of multilateral trade rules. The WTO not only addresses new trade agenda but also implements and operates these current trade rules through a dispute settlement mechanism. The headquarters is located in Geneva, Switzerland.

3. Multifunctional roles of agriculture, forestry and the fisheries

(1) Agriculture

Flood prevention by retention and storage of rainwater	Function to prevent/alleviate flood by temporarily collecting rainwater in paddy fields surrounded by ridges and cultivated field soil.
Landslide prevention	Function to prevent slope failure by detecting and repairing the failure of farmlands at an early stage through agricultural production activities in sloping farmlands, or to prevent landslides by holding down sudden rises in the groundwater level by allowing rainwater to permeate slowly underground through the cultivation of fields.
Soil erosion prevention	Function to prevent the erosion of soil caused by rainwater and wind, with the surface of water covering paddy fields or with the foliage and stems of crops in fields.
Water recharge	Rainwater and agricultural water for paddy fields seep underground and over time returns to the river, and water that seeps further below cultivates underground watersheds.
Water purification	Water purification is achieved the decomposition of organic material in paddy and dry fields, the absorption of nitrogen by crops, and the removal of nitrogen by microorganisms.
Decomposition of organic waste	Microorganisms within paddy and dry fields such as bacteria decompose livestock waste and compost made from household waste. The decomposed material is eventually reabsorbed by crops.
Climate mitigation	Crops growing on farmland absorb heat through transpiration and paddy fields absorb heat through water evaporation, resulting in lower climate temperatures.
Conservation of biodiversity	Rice paddies and upland fields are properly and sustainably managed to form and maintain a secondary natural environment with ecosystems rich in plants, insects and animals, etc. to secure biodiversity.
Formation of a good landscape	Agricultural activities combined with farmland, old farmhouses, surrounding water sources and mountains create attractive natural landscapes.
Maintenance of cultural tradition	Japan features many annual events and festivals which trace their origins to prayers for rich harvests. Agriculture plays a role in passing on these traditions to future generations.

(2) Forestry

Conservation of biodiversity	Forests inhabited by a wide variety of plants and animals contribute to conserving the diversity of genes, species and ecosystems.
Conservation of the global environment	Forests can adjust the natural environment on a global scale through transpiration and absorption of CO ₂ which causes global warming.
Prevention of landslide disasters and conservation of soil	Brush, fallen leaves and branches suppress soil erosion, and the network of roots from forest trees prevents landslides.
Watershed capabilities	Forest soil mitigates floods and stabilizes river flow by storing rainwater and moderating the volume of water running into rivers.
Formation of comfortable environments	Forests help form comfortable environments by moderating climate through transpiration, reducing wind shear and noise, adsorbing dust through tree crowns and alleviating the heat island phenomenon.
Benefits for health and recreation	Trees release volatile substances such as phytoncides that are known to directly improve health, and forests provide areas for sports and leisure.
Culture	As a foundation for the succession of culture and traditions, forest scenery plays a vital role in the shaping of the traditional Japanese outlook on nature, and they also provide a place for forest environment education and practical learning.
Material production	The ability of forests to produce a wide variety of materials including wood, extracts and various types of fungi

(3) Fisheries

Supplementary contributions of fishery to the nitrogen and phosphorus cycle	An appropriate level of fishery can help recycle nitrogen and phosphorus absorbed by marine wildlife through the food chain to land.
Conservation of coastal environments	Bivalve shellfish such as oysters and clams filter and purify seawater by feeding on organic suspension such as plankton.
Water purification	Mudflats and seaweed beds, and plants and animals that inhabit them purify seawater by decomposing organic matters, absorbing nutrient salts and carbon dioxide gas, and supplying oxygen.
Preservation of ecosystems	Appropriate fishery operations can contribute to preserving mudflats, seaweed beds and other ecosystems that provide inhabitation environments for a wide variety of water creatures.
Transfer of cultural assets such as traditional fishing practices	Cultural assets such as traditional fishing practices are passed down to future generations through the activities of people living in fishing villages.
Rescue operations in the event of marine emergencies	Fishery workers help emergency rescue operations when ships sink, capsize, become stranded, go adrift, collide or catch fire.
Rescue operations in the event of disasters	Fishery workers conduct emergency operations such as supply transportation and oil recovery during natural catastrophes, oil tanker accidents and other disasters.
Monitoring of coastal environments	The fisheries monitors abnormalities in coastal environments. For example, fishery workers assist in early detection of red tides, blue tides and jellyfish outbreaks.
Border monitoring	Activities to monitor illegal poaching of precious marine resources also protects the national interest by preventing smuggling and illegal immigration.
Functions related to providing places for exchange	The mariner industry can provide places for leisure such as marine recreation facilities and places to learn the importance of nature.