## FY2023

# Summary of the Annual Report on Food, Agriculture and Rural Areas in Japan



**May 2024** 

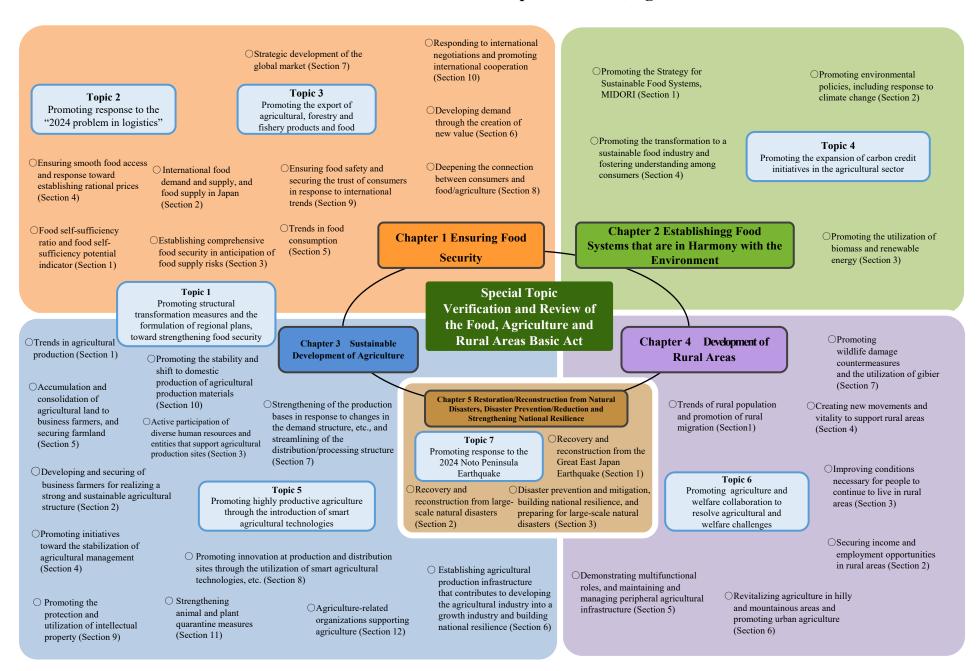


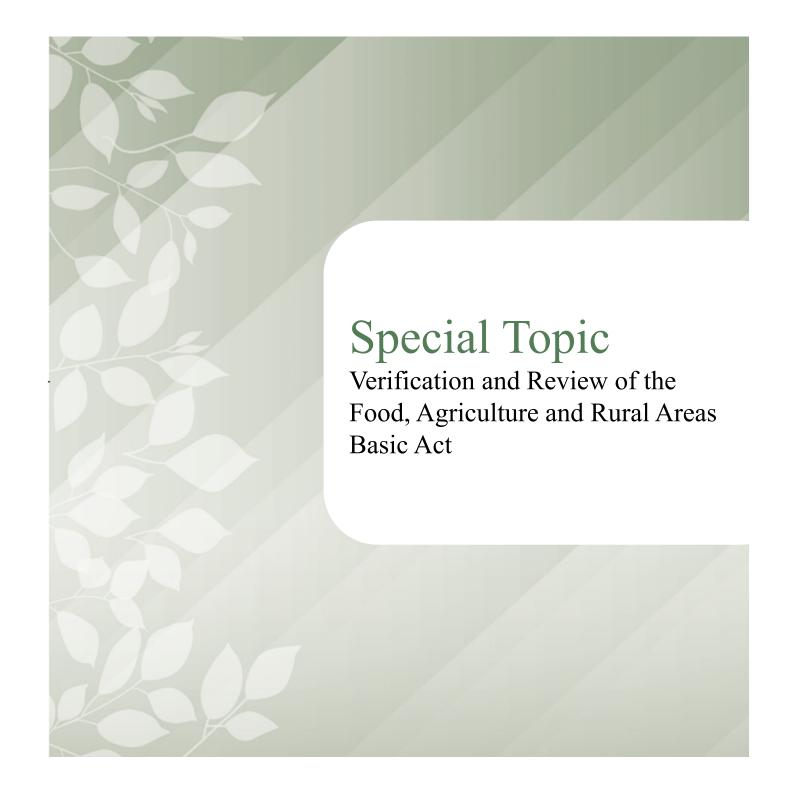
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#### Overview of matters related to the FY2023 Annual Report on Food, Agriculture and Rural Areas

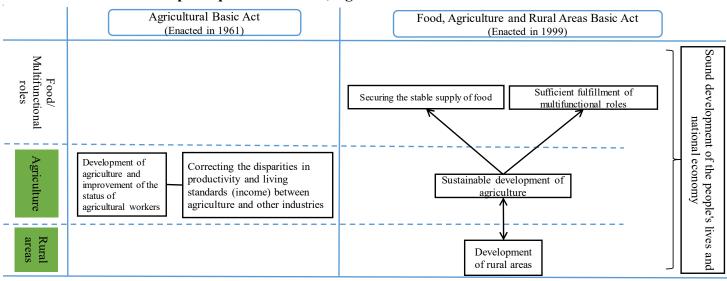




#### Food security risks are manifesting with the passing of a quarter of a century since the enactment of the Basic Act

- A quarter of a century has passed since the enactment of the Food, Agriculture and Rural Areas Basic Act (hereafter, "the current Basic Act"), and the food and agricultural sector as well as rural areas in Japan are facing challenges and changes in the situation that had not been anticipated during the enactment of the law or exceeded expectations.
- Specifically, the emergence of the following challenges have put us at a significant turning point in history: (1) growing food security risks caused by instability in food production, as a result of climate change and the intensification of competition for food due to global population growth; (2) growing interest in initiatives that take environmental sustainability into consideration, such as global warming and biodiversity; (3) growing concerns over the ability to support food supply as the number of agricultural workers falls rapidly amid the rapid decline in agricultural population ahead of domestic population decline.

#### Basic principles of the Food, Agriculture and Rural Areas Basic Act



Source: Prepared by MAFF.

## The Verification Subcommittee on the Basic Act conducted a verification and review of the current Basic Act and compiled a report in September 2023

- In September 2022, the Minister of Agriculture, Forestry and Fisheries consulted with the Council of Food, Agriculture and Rural Area Policies. The Verification Subcommittee on the Basic Act conducted interviews with experts and verified measures, and held active discussions with Committee members from various fields such as academics, producers, food-related businesses, and related organizations.
- In addition to implementing local opinion exchange meetings with 11 blocks across Japan, opinions were collected from the public through websites and other channels, reviews were conducted while listening widely to the voices of the people, and a report was compiled in September 2023.

## Significant changes in the domestic and overseas situation surrounding food, agriculture, and rural areas after the enactment of the current Basic Act

- There have been significant changes in the domestic and overseas situation surrounding food, agriculture and rural areas after the enactment of the current Basic Act.
- In particular, factors such as Russia's invasion toward Ukraine have destabilized global food production and supply.
- Furthermore, after the enactment of the current Basic Act, there has been significant progress in international discussions surrounding environmental conservation and sustainability, contributing to significant changes in the mindset toward agriculture/food industry and sustainability.
- The situation that had been the premise of the basic principles of the current Basic Act is undergoing major changes, and new challenges are also emerging.

#### Cases of destabilization of global food production and supply

Crop failure caused by droughts







\*Photo: Ratchakith Dhanyajarath-Bhorn

\* © FAO/Sven Torfinn

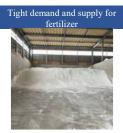
Outbreak of animal infectious disease



\*Photo: Ministry of Defense Source: Prepared by MAFF.



\*Photo: Agriculture & Livestock Industries Corporation (ALIC)



#### Heightening geopolitical risks related to food security due to changes in the global situation

- Complex risks have been manifesting in recent years due to the spread of COVID-19, soaring energy prices, climate change, and conflicts. Against this backdrop, global food supply has become even more unstable, with the stagnation of grain exports via the Black Sea and soaring international wheat market prices and prices of raw materials for fertilizers, due to Russia's invasion against Ukraine and other factors.
- The destabilization of the geopolitical situation could potentially have a serious impact on Japan's food supply, which is heavily reliant on imports.



G7 summit held in March 2022 regarding the situation in Ukraine Source: Website of the Prime Minister's Office URL: https://www.kantei.go.jp/jp/101 kishida/actions/202203/24g7.html

#### Progress in international discussions on food security

At the 1996 World Food Summit, where discussions were held on the food problem on a global scale, the Food and Agriculture Organization (FAO) defined food security as follows: "Food security exists when all people, at all times, have physical, social, and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life."

#### FAO's definition of food security

#### [Definition of food security by FAO]

"Food security exists when all people, at all times, have physical, social, 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:

#### [Four pillars of food security]

#### Food Availability

The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid)

#### Food Access

Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet. Entitlements are defined as the set of all commodity bundles over which a person can establish command given the legal, political, economic and social arrangements of the community in which they live (including traditional rights such as access to common resources).

#### Utilization

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. This brings out the importance of non-food inputs in food security.

#### Stability

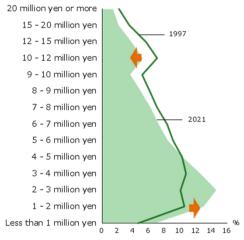
To be food secure, a population, household or individual must have access to adequate food at all times. They should not risk losing access to food as a consequence of sudden shocks (e.g. an economic or climatic crisis) or cyclical events (e.g. seasonal food insecurity). The concept of stability can therefore refer to both the availability and access dimensions of food security.

Source: Prepared by MAFF

## Decline in ability to deliver food in addition to an increase in the number of people who are unable to obtain sufficient food due to economic reasons

- Since the 1990s, the increase in non-regular employment and other factors have contributed to an increase in the number of low-income households. There has been a rise in the percentage of households with income below 2 million yen, as well as an increase in the number of people who are unable to obtain sufficient food due to economic reasons.
- Alongside the impact of the so-called "2024 problem in the logistics industry," there are growing concerns of disruption to food distribution. Moreover, the impact of a reduced domestic market is emerging and becoming increasingly serious, particularly in depopulated areas, and there is a growing number of people who have difficulty accessing grocery stores.

## Changes in the relative frequency distribution of households by income bracket

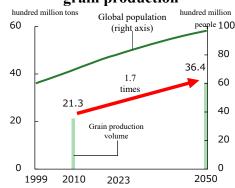


Source: Prepared by MAFF based on the Ministry of Health, Labour and Welfare's "Basic Survey on National Living Conditions."

## While food demand is increasing due to global population growth, food production is becoming unstable due to climate change and frequent abnormal weather conditions

- ➤ Global population which was approximately 6 billion in 1999, had increased to 8.01 billion in 2023 and is predicted to be approximately 9.7 billion in 2050. In response to this population growth, the worldwide grain production is also increasing.
- Due to the impact of global warming, abnormal weather conditions such as high temperatures, droughts, and large-scale flooding are occurring frequently. Since the beginning of the 2000s, localized crop failures have been occurring around the world almost on a yearly basis. Additionally, the destabilization of global food production, has contributed to repeated spikes and crashes of grain prices.

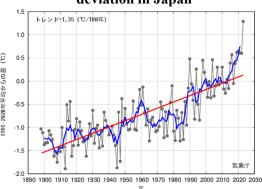
## Outlook for global population and grain production



Source: Prepared by MAFF based on the United Nations' "World Population Prospects 2022" and MAFF's "World Food Supply and Demand Outlook in 2050" (published in September 2019).

Note: Global population figures are estimates drawn up by the United Nations

## Annual average temperature deviation in Japan



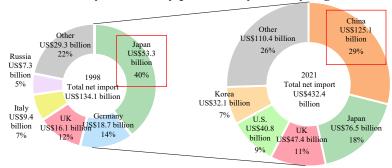
Source: Japan Meteorological Agency, "Changes in Japan's Annual Average Temperature Deviation Over Time (1898 - 2023)" (published in January 2024).

Note: The red line indicates the trend of long-term changes. Base value for average temperature is the average value from 1991 – 2020.

## With the emergence of new major food importing countries, import prices are rising, and there are concerns over stable imports

- Economic growth has slowed down significantly in Japan over the past 30 years under the conditions of a deflationary economy, while emerging economies worldwide, such as China and India, are experiencing rapid economic growth. Going forward, Japan's economic status is expected to decline even further.
- There is intensifying competition to procure grains, oilseed and agricultural production materials, such as fertilizers, and feed, for which Japan depends heavily on imports. It is becoming increasingly difficult to import the necessary food and agricultural production materials at the desired conditions.

## Percentage of net import amount for agricultural, forestry and fishery products by country/region



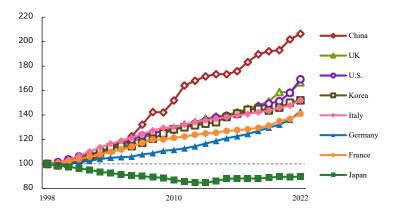
Source: Prepared by MAFF based on S&P Global's "Global Trade Atlas"

Note: Of the 41 target countries/regions that take into account economic scale and data constraints, the net import amount for countries/regions is aggregated for those with a positive net import amount (amount of imports - amount of exports).

Problems with the price formation function have surfaced under 30 years of deflationary economic conditions, where selling at cut-rate prices has become the norm and reluctance to increase food prices across the supply chain has become an entrenched culture

- Under 30 years of deflationary economic conditions, prices of agricultural products and food have nearly remained flat in Japan. With consumers demanding low-priced food, competition to sell at cut-rate prices has become the norm, and reluctance to increase food prices across the supply chain has become an entrenched culture. The inability to raise prices despite an increase in production costs has become an increasingly serious problem, making it difficult to pass on rapid hikes in the prices of agricultural products and agricultural production materials to product prices, and giving rise to a situation that could affect business continuity.
- > On the production side, it is not always possible to meet demand, including for rice cultivation, which has a large non-agricultural income and a predominantly part-time production structure, and is lack of progress in switching to other crops compared to other products.
- Under the prolonged deflationary economic conditions, it has become common for food sales to compete over low prices. As a result, production costs are not taken into account sufficiently in price formation, giving rise to a situation that makes it difficult to quickly reflect increases in production costs in selling prices.

#### **GDP** deflators in main countries

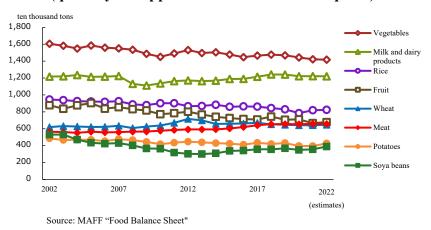


Source: Prepared by MAFF based on economic data from the World Bank Databank.

Notes: 1) GDP deflator is an indicator that shows price trends attributed to domestic factors, and is calculated by dividing nominal GDP by real GDP.

2) Index set as 100 for 1998.

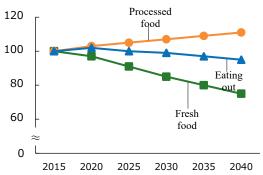
## Demand for major agricultural and livestock products (quantity of supplies for domestic consumption)



#### A shrinking domestic market due to population decline and an aging society

- ➤ Japan's population started to fall after peaking in 2008, and both total and per capita demands for food are expected to drop in the future due to population decline and an aging society. Therefore, rapid shrinkage of -the domestic food market is inevitable.
- The number of single-person households is also expected to increase due to declining birthrates and an aging society. Demand in households is expected to shift from fresh food consumed directly or after cooking, to precooked processed food.

#### **Future estimates of food consumption**



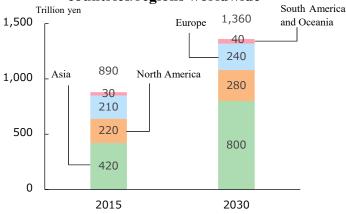
Source: PRIMAFF, "Future Estimates of Japan's Food Consumption (2019 Edition)" Notes: 1) Index set as 100 for 2015.

2) Fresh food refers to the total consumption of rice, fresh seafood, fresh meat, milk, eggs, fresh vegetables, and fresh fruit. Processed food refers to food items other than fresh food and eating out.

#### An expanding international food market associated with global population growth

- The international food market is expanding alongside global population growth, and the scale of the food and beverage market in key countries and regions is predicted to grow by 1.5 times between 2015 and 2030.
- The Asia region, in particular, is a center for economic growth in the world. Due to an increase in the number of high-income earners, among other factors, Japanese food is popular in this region, and demand for Japanese agricultural products and processed food is growing.
- From the perspectives of sustainable growth, risk diversification, and maintaining the agricultural production base, there is a need to promote the shift to an agricultural and food industry that focuses not only on the domestic market, but also on the overseas market.

## Scale of the food and beverage market in 34 key countries/regions worldwide



Source: PRIMAFF, "Estimated Global Food and Beverage Market Scale" (published in March 2019). Note: In addition to the 20 countries with the highest GDP in 2015 (excluding Japan), the 34 key countries/regions also include the top five EU member countries and the top 10 APEC member countries/regions.

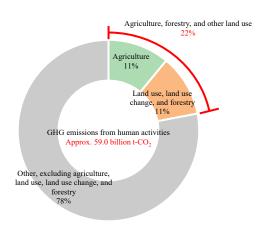
## There are growing concerns over the adverse impact of agriculture on environment and sustainability. Progress has been made on introducing policies to mainstream environmentally-friendly sustainable agriculture

- Progress has been made in international discussions toward the establishment of a sustainable society and economy, in aspects such as the conservation of the global environment and eradicating poverty.
- The mindset that it is important to minimize the adverse impact of food supply on ecosystem services such as maintaining soil fertility and conserving the natural landscape, becomes internationally prevalent.
- Based on the premise that agriculture has an adverse impact on the environment, as well as aspects that undermine sustainability, it is necessary to mainstream environmentally-friendly sustainable agriculture by working to reduce greenhouse gas emissions from agriculture and forestry and reduce the burden on the environment.
- Japan formulated the MIDORI Strategy for Sustainable Food Systems (hereafter, "MIDORI Strategy") in 2021, and the Act to Promote Environmental Burden Reduction Business Activities for the Establishment of Environmentally Harmonized Food Systems (hereafter, "MIDORI Act") was enacted in 2022. Under this framework, efforts are ongoing to reduce the environmental burden of agriculture.

#### Items identified as global environmental risks

Main items	Impact on climate change and biodiversity			
Fertilization (fertilizers)	<ul> <li>Generation of dinitrogen oxide and deterioration of water quality due to excessive fertilization</li> <li>Use of fossil fuels associated with the production and procurement of fertilizers</li> </ul>			
Pest control (pesticides)	• Loss of biodiversity due to the inappropriate use of pesticides			
Agricultural machinery/heating facilities, etc.	<ul> <li>Generation of carbon dioxide due to the use of fossil fuels</li> <li>Soil compaction caused by work using agricultural machinery</li> </ul>			
Plastic materials, etc.	<ul> <li>Treatment processes at the disposal stage</li> <li>Fuel combustion at the manufacturing stage</li> <li>Impact of microplastics on marine life, etc.</li> <li>Disruption to ecosystems due to inappropriate disposal, etc.</li> </ul>			
Livestock farming	<ul> <li>Generation of methane due to fermentation in the digestive tract of ruminants such as cows</li> <li>Generation of methane and dinitrogen oxide associated with livestock waste treatment</li> <li>Water pollution from nitrate nitrogen</li> </ul>			
Farming field management	<ul><li> Generation of methane from paddy soil, etc.</li><li> Water pollution and eutrophication due to soil loss, etc.</li></ul>			

#### Global GHG emissions from agriculture and forestry



Source: Prepared by MAFF based on IPCC's "Climate Change 2022: Mitigation of Climate Change" (published in April 2022).

Notes: 1) Estimated values for 2019

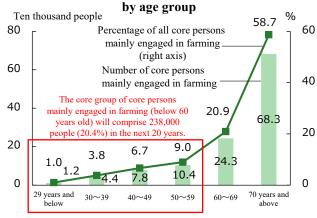
2) Emissions are shown as carbon dioxide equivalent.

Source: Prepared by MAFF

## Population decline is a serious issue in the rural areas of Japan, with significant decline and aging of the agricultural workforce

- Population decline is a serious issue in the rural areas of Japan, with significant decline and aging of the agricultural workforce.
- The number of core persons mainly engaged in farming halved from about 2.4 million in 2000 to about 1.16 million in 2023, and the peak of the age structure are those aged 70 and above. The group below 60 years old, which is expected to form the core of core persons mainly engaged in farming in the next 20 years, has remained at about 240,000 people, making up about 20% of the total.

#### Number of core persons mainly engaged in farming,



Source: Prepared based on MAFF's "2023 Survey on Movement of Agricultural Structure."

Notes: 1) Figures as of February 1, 2023.

"Core persons mainly engaged in farming" refer to household members aged 15 or above who are mainly engaged in self-employed farming as their regular job.

# Technological innovation that contributes to improving productivity such as smart agricultural technologies has advanced. On the other hand, demonstration projects have revealed challenges such as the adoption cost of smart agricultural machinery, etc.

- Technological innovation that contribute to improving agricultural productivity such as smart agricultural technologies has advanced. Amid the decline in the agricultural workforce going forward, and in light of the progress in digital innovation, it is important to further promote smart agriculture in order to maintain the food supply base and establish a highly productive agriculture industry.
- Since FY2019, MAFF has been promoting smart agriculture demonstration projects in 217 districts nationwide. The projects clarified that the number of work hours can be reduced significantly and also verified the effects of freeing agricultural workers from dangerous and heavy work, as well as from the need of on-site monitoring, alongside contributing to realizing the MIDORI strategy by reducing environmental burden. On the other hand, the projects have also uncovered issues such as the high costs of adopting smart agricultural machinery, etc. and the shortage of human resources to operate such equipment, the fact that smart agricultural technologies do not fully demonstrate their effects when introduced directly to conventional cultivation methods, and the need to promote the development of smart agricultural technologies in areas where development is inadequate.

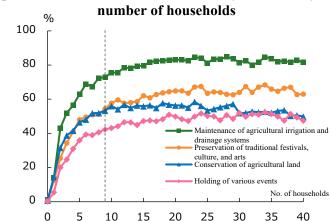


Using drones to spray pesticides Source: Yamaha Motor Co., Ltd.

#### Declining power to support agriculture due to shrinking rural population and rural communities

- Rural areas are experiencing population decline and depopulation ahead of urban areas.
- There are situations where it becomes difficult to maintain the functions of a rural community. When the number of households in a rural community falls to nine or fewer, a significant decline in communal activities, such as the management of irrigation and drainage canals and the preservation of farmland, is sometimes observed.
- The decline in rural populations and rural community functions has become an issue that should be recognized as a risk to food security.

#### Implementation rate of rural community activities by total

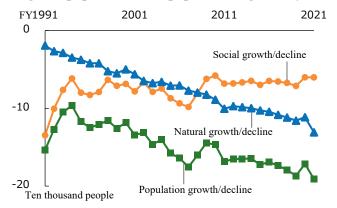


Source: Prepared by MAFF based on PRIMAFF's "Development of Japanese Agriculture and Rural Structure - Comprehensive Analysis of the 2015 Census of Agriculture" (published in December 2018).

## In depopulated regions, natural decline is expected to progress on a scale that exceeds that of social decline. There are concerns over the continuity of agricultural production activities that used to be supported by the rural communities

- Against the backdrop of significant aging populations in depopulated regions, particularly in hilly and mountainous areas, natural decline is exceeding the scale of social decline since FY2009. Going forward, natural decline is expected to progress on a greater scale even if social decline were mitigated to a certain degree through migration to rural villages and other measures.
- There are concerns over the continuity of agricultural production activities that used to be supported by the rural communities.
- In particular, it will become difficult to support the maintenance and management of peripheral agricultural infrastructure such as irrigation and drainage systems as well as farm roads, which have been supported by the region until now based on the premise of a certain number of residents.

#### Changes in population in depopulated regions, by factor



Source: Prepared by MAFF based on the Ministry of Internal Affairs and Communications' "Status of Depopulation Measures, FY2021" (published in March 2023).

#### Decision on the New Directions in the Development of Food, Agriculture, and Rural Area Policies

In reviewing the current Basic Act, the Headquarters on Measures to Secure Stable Supply of Food and Strengthen the Agriculture, Forestry, and Fisheries Industries made a decision on New Directions in the Development of Food, Agriculture, and Rural Area Policies in June 2023, in particular for matters that require the addition or revision of basic policies. The New Directions clearly set out a policy direction based on the following three new pillars: (1) establish food security for every citizen during normal times; (2) shift to sustainable agriculture and food industries that are environmentally friendly; and (3) establish a food supply infrastructure that remains robust and sustainable even under conditions of population decline.

#### Overview of the New Directions in the Development of Food, Agriculture, and Rural Area Policies

#### Establishing food security for every citizen during normal times

O Definition of food security

Food security is defined as a state in which every citizen is able to gain access to food easily at all times, and food security shall be secured from normal times.

O Strengthening the stable supply of food to mitigate import risks

In addition to **expanding domestic agricultural production** for items such as wheat and soybeans, processed vegetables and vegetables for commercial use, and rice for producing rice flour, as well as **securing production materials such as feed and fertilizers**, **emphasis is also placed on securing imports in a stable manner and effectively utilizing stockpiles**.

- O Shifting to an industry that is also targeted at overseas markets
  - The production base for the agricultural and food industries shall be secured by **expanding exports.**
- O Building a food system aimed at realizing fair price formation

To build a sustainable food system, **efforts shall be made to realize fair price formation at each stage** from production to processing, distribution, and sale, starting with feasible items.

O Improving food access so that all citizens can enjoy healthy diets

A supply system shall be established by local food businesses so that those facing "shopping difficulties" or those who are unable to obtain sufficient food for economic reasons can enjoy healthy diets.

### Shift to environmentally-friendly and sustainable agricultural and food industries

- O Establishment of food systems that are in harmony with the environment
- · Mainstreaming sustainable agriculture that engages in efforts to reduce environmental burden, etc.
- Going green across the entire food system including agricultural production, processing, distribution, and retail.

Establishing a robust food supply base that remains sustainable even under conditions of a population decline

- $\sim$  Establishment of agriculture that can supply food even amid the rapid decline in the number of farmers  $\sim$
- Establishment of a supply base that maintains production even under conditions of population decline
  - Nurturing and securing management entities, etc. (farmers) who can take over agricultural land of management entities that are leaving the agricultural sector amid the rapid decline in rural population
  - · Strengthening the management base of agricultural corporations, etc.
  - Participation of farmers as well as diverse agricultural human resources in conservation and management of agricultural land in the region based on dialogue within the community, leading to sustainable production
- O Improving productivity through smart agriculture, etc.
- Improving productivity through the utilization of smart technology, and securing food supply
- Nurturing and securing support service businesses for agricultural management entities through management and technologies, etc.
- Strengthening response to livestock infectious diseases and pests, disaster prevention and mitigation etc., and protecting intellectual property
- $\sim$ Maintaining rural community functions amid a decline in rural population $\sim$
- O Maintaining rural communities
- Efforts shall be made to promote migration from cities to rural areas and increase the related population through the innovation-driven business creation and the development of information infrastructure.
- O Securing the functions of rural infrastructure
- Even in regions where there are concerns of a decline in rural community functions, efforts shall be
  made to maintain and manage agricultural water irrigation facilities, etc. that are
  indispensable to agricultural production.

#### Strengthening food security in times of emergency

- In light of the growing risk of a significant reduction in food supply due to changes in global food demand and supply, destabilization of production, and other factors, the legal system that serves as the basis for responding in times of emergency has been reviewed. The Review Committee for Food Security in Times of Emergency organized the following points as the basic stance, and compiled a report in December 2023: (1) based on independent efforts by farmers and other business operators, (2) put in place countermeasures at an early stage when food supply shortages have been predicted in order to prevent such shortages from impacting the lives of citizens and the national economy, and (3) add measures to secure food supply in phases as the situation develops.
- In response, the Government submitted, to the 213th ordinary session of the Diet, a bill on measures for situations of difficulty in food supply, which prescribes measures such as the establishment of the Headquarters for Measures for Situations of Difficulty in Food Supply, and requests to coordinate shipments or sales, expansion of imports, or expansion of production in order to secure stable supplies of the food in question. The aim of the bill is to enable response in times of a significant shortage, or high risk of significant shortage in the supply of food that is important to the dietary habits of the people or to the national economy, including but not limited to rice, wheat, and soybeans.

#### Stages of the situation **Government system** Main measures <Gathering information from Japan and overseas> Organizing policies for initiatives to be implemented [Peacetime] Surveys on food demand and supply in Japan and overseas during peacetime and contingencies Gathering information by Minister of Agriculture, Capturing information on private-sector (manufacturing and Forestry and Fisheries distribution) inventories (collecting reports, conducting surveys, etc.) Government response headquarters Request for voluntary initiatives by the private sector> [Emerging signs of food supply difficulties] Outreach to consumers Support for imports and production through incentive measures Established by the Prime Minister O Events that may lead to a decline in food supply (Suppress behavior of rushing out to buy supplies, reduce food loss, etc.) (Decision based on reports from the Minister of Agriculture, Forestry occur, which may lead to the occurrence of Adjusting deliveries and sales and Fisheries) Response based on requests even in serious circumstances food supply difficulties. (Prevention of holding back sales, planned deliveries such as O Under the government response headquarters comprising the supply destination adjustments.) Prime Minister and all Cabinet ministers, decisions shall be Expansion of imports made on the implementation policy for measures that the Expansion of production (when the necessary amoun relevant ministries and agencies need to take corresponding to the severity of the situation. cannot be secured even with deliveries and imports) < Declaration by the government [Occurrence of impact from food supply difficulties] <Instructions from the government to secure food supplies> response headquarters> Adjusting deliveries and sales (planned deliveries, etc.) O There is a significant shortfall, or strong risk of a Review of implementation policy according **Expansion of imports** shortfall, in the supply of critical food items to how the situation progresses Expansion of production \*While ensuring there is no reduction (assumed to be rice, wheat, soybeans, etc.), giving rise to substantive disruptions to the stability of Preparation and submission of plans by business operators people's lives or the smooth operation of the national (when supplies cannot be secured even with these measures) economy. Instructions to change plans [Criteria] · Decline (or risk of decline) of 20% or more of the supply volume compared to peacetime Businesss operators change plans and conduct their businesses · Occurrence of disruptions to people's lives/national economy (buying up supplies to hoard, price hikes, etc.) < Declaration by the government [Risk of a shortage of basic food needs] Production and allocation of food with an emphasis on calories> response headquarters> Requests/instructions for crop diversion O Particular risk of disruption to people's lives Review of implementation policy according to Request for production that places the emphasis on calories. Issue instructions to prepare plans how the situation progresses and change plans if it is difficult to make requests. [Criteria] · (Risk of) daily calorie intake per person falling below Carry out allocation and distribution (Act on Emergency Measures for 1,900 kcal. Stabilizing Living Conditions of the Public)

New legal framework for strengthening food security in times of emergency

#### Establishing food security for every citizen

With regard to food security, in addition to securing food (stable supply of food) for the country as a whole, the law will also be reorganized to include ensuring that every citizen is able to gain access to food.

#### Strengthening the stable supply of food to mitigate import risks

In addition to increasing domestic agricultural production of wheat and soybeans, processed vegetables and vegetables for commercial use, and rice for rice flour, etc., as well as securing agricultural production materials such as feed and fertilizers, efforts will also be made to secure stable imports and effectively utilize reserves.

#### Positioning the promotion of exports as essential toward maintaining the domestic agricultural production base

With the domestic market shrinking due to population decline, promoting exports will be positioned as essential policy toward maintaining the domestic agricultural production base.

#### Promoting efforts to ensure smooth food access so that all citizens can lead healthy dietary habits

- With regard to line haul logistics, efforts will be made to promote the use of pallets and modal shifts, promote the review of business practices toward improving logistical productivity and the standardization as well as streamlining of logistics, and promote the introduction of mechanisms to encourage behavioral changes among shipping companies and other entities.
- With regard to regional logistics within consumption areas, and particularly last-mile logistics in hilly and mountainous areas, reviews will be conducted in collaboration with the relevant ministries and agencies on establishing mechanisms to ensure food access in cooperation with local public organizations, supermarkets, and delivery service operators.
- Reviews will be conducted in collaboration with the relevant ministries and government agencies that have jurisdiction over welfare policies and measures to address loneliness and isolation, etc., with regard to systems to facilitate provision of diverse food resources to food banks and children's cafeterias from producers and food businesses, such as the building of logistics systems and mechanisms for promoting donations.

#### Case of "shopping support"



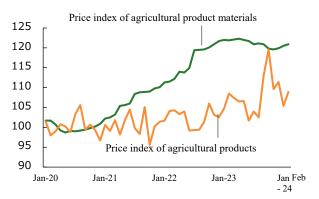
NPO TOMONI provides "shopping support" through mobile sales, as well as activities to look after the elderly (Shimane Prefecture)

Source: NPO TOMONI

#### Promoting measures toward realizing rational price formation

- The prices of agricultural products are basically established in response to the demand and supply conditions of the respective items and evaluation of their quality. On the other hand, while there are increases in costs, such as the cost of agricultural production materials, resulting from various factors such as intense price competition at the distribution stage, it is difficult to pass on these cost increases appropriately to trading prices.
- The rate of increase in index numbers of agricultural products is moderate and gradual, in comparison with the rate of increase in index number of price of agricultural production material. Soaring agricultural production material prices are directly linked to the increase in management costs for producers, etc. If such cost increases cannot be appropriately passed on to the selling price of the final product, they may weaken the foundations of stable food supply.
- To realize sustainable food supply, it is necessary to ensure the sustainability not only of production, but of all stages in the food chain including distribution, processing, and retail.
- In July 2023, MAFF established the Fair Price Project and carried out publicity activities to deepen understanding and consensus toward realizing sustainable food supply through rational price formation. In addition, the Council for Fair Price Formation was established in August 2023. Based on the actual situation and issues in trading, efforts are underway to build systems for promoting fair trade, including making use of the results of statistical surveys, drawing up cost indices in agreement with the concerned parties, and ensuring price pass-through at every stage.

## Price index of agricultural product materials and price index of agricultural products



Source: MAFF "Index numbers of commodity prices in agriculture".

Notes: 1) Figures for each month/year are based on the average price for 2020 as 100.

2) Estimates for 2023 and 2024.

#### Case of the "visualization" of production costs

(Unit: Yen)

T4	Amount of increase by materials, etc. related to production and shipment (per case)					Amount of	
Item	Fertilizers	Pesticides	Shipping materials	Utility costs	Labor wages	Freight	increase per case
Green pepper	26.3	9.1	9.7	5.7	38.1	5.0	93.9
Iceberg lettuce	160.3	2.8	39.2	2.0	54.0	8.0	266.3
Chinese cabbage	25.9	8.4	17.4	1.7	10.0	10.0	73.4
Sweet potato	33.3	7.6	9.3	4.5	27.1	6.0	87.9
Lotus root	53.3	1.9	23.0	7.5	31.9	6.0	123.6
Spring melon	86.8	12.4	20.6	3.1	52.1	10.0	185.0

The Ibaraki Prefectural Headquarters of the National Federation of Agricultural Co-operative Associations is promoting the "visualization" of increases in production costs, such as by preparing a trial balance table showing the increase in production costs by the main items or crop types and explaining it to trading partners, with a view to promoting understanding about price pass-through. Source: Ibaraki Prefectural Headquarters of the National Federation of Agricultural Co-operative Associations.

Note: Estimates as of June 2023.

#### Stipulated the establishment of food systems that are in harmony with the environment in the Act

- In light of the importance of reducing the environmental burden at each stage across the food systems, from production to processing, distribution, and sale, the establishment of food systems that are in harmony with the environment has been stipulated in the Act.
- Toward reducing environmental burden in the agriculture and food industries, based on the promotion of the actions under the MIDORI Act, MAFF clarifies the minimum practices for environmental burden reduction and considers ways to avoid creating new environmental burden through the projects using MAFF's subsidies.
- To make it easier to advance initiatives to reduce environmental burden across the whole of the food systems, efforts will be made in the following three areas: (1) promote an initiative to visualize producer's efforts to reduce environmental burden; (2) utilize the J-Credit Scheme to promote decarbonization; and, (3) collaborate with users, such as food business operators, and foster understanding among consumers.

environment with consideration for safety in agricultural work

#### Minimum practices for environmental burden reduction required in cross-compliance Odor and pest Proper fertilization Proper pest control **Energy conservation** prevention E.g. · Record and storage of information on · Record and storage of information on · Record and storage of · Proper management of the status of use of fertilizers the status of use of pesticides information on the status of use · Fertilization corresponding to crop · Checking of and compliance with of electricity and fuels growth and soil nutrient level, etc. pesticide labeling, pesticide scattering prevention, etc Prevention of waste generation, Prevention of adverse impact Compliance with recycling, proper disposal on biodiversity environment-related laws · Compliance with laws required for · Implementation of controls · Reduction and proper farming corresponding to the pest disposal of plastic waste Improvement of the working

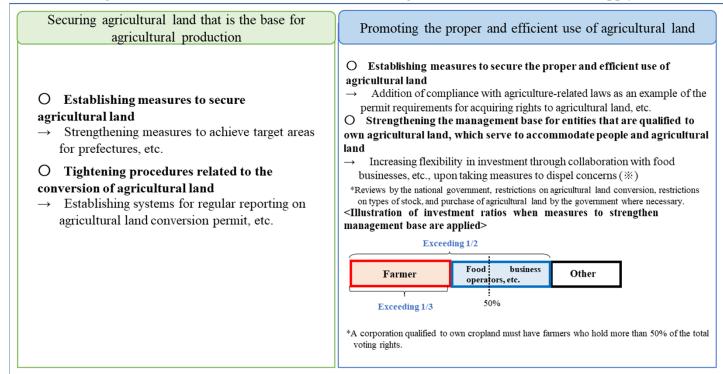
occurrence situation



#### Securing agricultural land, and promoting its appropriate and effective use

- In addition to steadily promoting the consolidation of agricultural land for recipients of maps that clarify the future state of agriculture and the future use of farmlands (target maps), based on the "Promotion Plan for Improvement of Agricultural Management Foundation in Area (PAA)" including target maps, it is also necessary for the government to take responsibility for securing agricultural land, which serves as the base for food production, and to ensure its appropriate and efficient use, in order to strengthen food security in Japan.
- The government submitted, to the 213th ordinary session of the Diet, a bill to partially amend the Act on Establishment of Agricultural Promotion Regions to secure, and ensure the effective use of, agricultural land for the stable supply of food. This bill includes the following contents: (1) strengthening of measures to achieve the target area of agricultural land that should be secured by the national and prefectural governments; (2) strengthening of measures to address the illegal conversion of agricultural land; and, (3) measures to establish certification systems for plans to develop management in cooperation with food business operators, etc. and other entities that are qualified to own cropland.

Overview of the bill to partially amend the Act on Establishment of Agricultural Promotion Regions to secure, and ensure the effective use of, agricultural land for the stable supply of food



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#### Promoting the shift to highly productive agriculture through the adoption of smart agricultural technologies

- The bill on promoting the utilization of smart agricultural technologies to improve agricultural productivity was submitted to the 213th ordinary session of the Diet. This bill sets out measures aimed at improving agricultural productivity, including the establishment of a certification system for plans to utilize smart agricultural technologies and at the same time introduce new production systems for agricultural products, as well as plans to develop smart agricultural technologies and promote the outcomes of the development, and special provisions for government-backed loans to those that have received such certification.
- To maximize the effects of adopting smart agricultural technologies, efforts will be made to promote the transition to production, distribution and sales methods that are suitable for smart agricultural technologies, such as the review of cultivation systems. This will be undertaken at the sites of production in collaboration with agricultural support service businesses and other entities that utilize smart agricultural technologies.
- Upon the clarification of key development goals leading up to implementation, the government will take the lead in promoting research and development by strengthening industry-academia-government collaboration through, for example the provision of the National Agriculture and Food Research Organization's (NARO) facilities to business entities such as start-ups that are engaged in research and development in line with such development goals.

## Legal framework for promoting the utilization of smart agricultural technologies

National government (formulation and announcement of basic policy)

R&D and commercialization of smart agricultural technologies, etc., significance and goals of promoting changes in production, distribution, and sales methods, etc.

promoting changes in production, distribution, and sales methods, etc.

Apply Certify Apply Certify

(1) Review of production, distribution, and sales methods for the utilization of smart agricultural technologies and adaptation to them (Production Method Innovation Implementation Plan (provisional))

#### [Initiatives]

- · Utilization of smart agricultural technologies
- + Review of production, distribution and sales methods [Implementing entities]
- Farmers, food businesses operators, agricultural support service business entities (farmers essential)

#### [Support measures]

- · Long-term low-interest government-backed loans
- Investment promotion tax system (corporation tax, income tax), etc.

#### (2) R&D and commercialization of smart agricultural technologies (Development and Supply Implementation Plan (provisional))

#### [Initiatives]

• R&D and commercialization of smart agricultural technologies, etc.

#### [Implementing entities]

· Those who intend to conduct R&D, etc.

#### [Support measures]

- · Supply of FARO's facilities, etc.
- · Long-term low-interest government-backed loans
- Reduction of registration and license tax, etc.

#### Case of automatic harvesting robot





inaho inc. is developing automatic harvesting robots for asparagus that are tailored to standardized farming fields that have expanded paths, and promotes the entry of young farmers (Kanagawa Prefecture).

Source: inaho inc.

Source: Prepared by MAFF

## Promoting initiatives to preserve rural areas and secure the functions of their infrastructure, in order to maintain the functions of rural communities

- To increase the pool of human resources involved in rural communities, efforts will be made to promote the creation of businesses through innovation from rural areas that make use of regional resources such as sixth industrialization and countryside stays.
- In hilly and mountainous areas, in addition to promoting the development of rural RMOs, support will be provided for corporate activities aimed at contributing to society and expanding businesses in order to revitalize rice terraces and create vitality in the regions. Efforts will also be made to promote the development of complementary partnerships between corporations and regions.
- Support will be provided for community-wide discussions and detailed efforts to address extensive use of agricultural land, and to develop infrastructure and facilities, etc., in order to preserve agricultural land in hilly and mountainous areas. Sustainable land use in rural communities will also be promoted.
- With regard to revitalizing rural areas, in addition to efforts to maintain local communities, details on measures to mitigate wildlife damage, agriculture and welfare collaboration, etc. will also be clarified.

# YAMAGATA DESIGN Co., Ltd. implements urban development projects through industry-academia-government collaboration, such as securing and development of agricultural human resources, tourism, etc. (Yamagata Prefecture) Source: YAMAGATA DESIGN Co., Ltd.

#### Promoting the fulfillment of multifunctional roles through joint activities that involve the entire community

- The agricultural industry and rural communities have multifunctional roles such as preservation of national land, conservation of water resources, and formation of good landscapes. To ensure the appropriate and full performance of these functions, it is important to continue with agricultural production activities and to conserve local resources through joint activities.
- Efforts will be made to realize a Japanese agricultural direct payment system, in order to establish a sustainable and robust food supply base while taking into account the population decline in the agricultural sector and rural communities.

## Submission of the bill to partially amend the Food, Agriculture and Rural Areas Basic Act to the 213th ordinary session of the Diet

- A bill to partially amend the Food, Agriculture and Rural Areas Basic Act was submitted to the 213th ordinary session of the Diet.
- In response to recent fluctuations in global food supply and demand, the progression of global warming, population decline in Japan, and other changes in the circumstances surrounding food, agriculture, and rural areas, the Basic Act will be amended to establish related fundamental measures, alongside the review of its basic principles. This is aimed at ensuring food security, establishing food systems that are in harmony with the environment, improving productivity for the sustainable development of agriculture, and preserving rural areas.

#### Overview of the bill to partially amend the Food, Agriculture and Rural Areas Basic Act

#### **Ensuring food security**

- (1) The basic principles are:
- ① Prescribe "ensuring food security," which is defined as "a state in which quality food is supplied at rational prices and in a stable manner, and every citizen is able to gain access to it."
- ② Prescribe that, in light of the importance of securing the foundation for agricultural production in providing stable supplies of food to the citizens, efforts must be made to maintain the food supply capacity through the development of the agricultural and food industries by promoting exports overseas as well as supplying food domestically.
- ③Regarding the formation of rational food prices, stipulate that farmers, food business operators, consumers, and other stakeholders in the food system must consider the reasonable costs necessary for the sustainable supply of food, ensuring that supply and demand conditions and quality evaluations are appropriately reflected in prices to realize the sustainable supply of food.
- (2) The basic measures are:
- ①Ensure that **food can be obtained smoothly (food access)** (such as by securing the means of transportation) and ensure the **stable import of agricultural products and agricultural materials** (such as by diversifying the import partner countries and promoting investment).
- ② Promote the export of agricultural products that contributes to improving profitability (such as by nurturing export-oriented production regions, promoting efforts by organizations of entities involved in the stages from production to sale (Authorized Export Promotion Organization), supporting the development of demand in export partner countries, etc.)
- 3 Prescribe the promotion of understanding among stakeholders in the food system so as to consider expenses in price formation, the promotion of efforts to clarify expenses, etc.

#### Establishing food systems that are in harmony with

- the environment
- (1) Under the new basic principles, with regard to food systems, in light of the fact that every stage of food supply has aspects that places burden on the environment, stipulate efforts to reduce such burden and to achieve harmony with the environment.
- (2) Prescribe the following basic measure: the promotion of efforts to reduce burden on the environment in agricultural production activities and the business activities of food industries.

#### Sustainable development of agriculture

- (1) Under the basic principles, add the obligation to realize the sustainable development of agriculture through efforts to improve productivity and increase added value.
- (2) Prescribe basic measures such as the following: secure agricultural land by diverse farmers beyond efficient and stable agricultural management, strengthen the management base of agricultural corporations, consolidate and appropriately use farmland, preserve the agricultural production base, improve productivity by using advanced technology (smart technology), enhance the added value of agricultural products (such as by protecting and utilizing intellectual property), promote the activities of businesses that support agricultural management (service providers), prevent the outbreak of infectious diseases in livestock and the outbreak of harmful plants and animals, and mitigate the impact of price fluctuations in agricultural production materials.

#### **Development of rural areas**

- (1) Under the basic principles, add the obligation to develop rural areas so as to maintain local communities.
- (2) Prescribe basic measures such as the following: promote joint activities that contribute to the preservation of agricultural land, promote business activities that utilize local resources, promote business activities that provide opportunities to stay in rural communities (countryside stays), develop an environment for agricultural activities by persons with disabilities, etc. (agriculture and welfare collaboration), and measures to mitigate wildlife damage.

Source: Prepared by MAFF

## **Topics**

- 1 Promoting structural transformation measures and the formulation of PAA toward strengthening food security
- 2 Promoting response to the "2024 problem in logistics"
- 3 Promoting the export of agricultural, forestry and fishery products and food
- 4 Promoting the expansion of carbon credit initiatives in the agricultural sector
- 5 Promoting highly productive agriculture through the introduction of smart agricultural technologies
- 6 Promoting agriculture and welfare collaboration to resolve agricultural and welfare challenges
- 7 Promoting response to the 2024 Noto Peninsula Earthquake

#### Promoting structural transformation measures and the formulation of PAA, toward strengthening food security

Chapter 3 Sustainable Development of Agriculture

To reduce excessive reliance on imports, efforts are made to promote structural transformation by promoting the expansion of the production of items that are highly dependent on overseas sources, such as wheat and soybeans, and promoting the domestic substitution of agricultural production materials

Source: Prepared by MAFF

- There are growing risks surrounding global food supply and demand, due to the destabilization of global food production caused by climate change and the intensification of procurement competition accompanying the global expansion of food demand, compounded by the heightened tensions in Ukraine and other factors. Strengthening food security has become a pressing issue of top priority for the country.
- Excessive reliance on the import of agricultural, forestry, and fishery products and food heightens risks that threaten the stable supply of food, even during normal times. For example, it may not be possible to import items at the desired conditions due to changes in the international situation, such as soaring grain prices due to crop failures in the country of origin, and a reduction in procurement volume due to export restrictions by countries producing chemical fertilizers.
- To reduce excessive reliance on imported food and agricultural production materials, structural changes are promoted, such as promoting the production expansion of items that are highly dependent on overseas sources, such as wheat, soybeans, and animal feed crops, and promoting substituting domestic agricultural production materials for imports.
- A bill to partially amend the Act on Temporary Measures concerning Improvement of Management of Specified Agricultural Products Processing Industry was submitted to the 213th ordinary session of the Diet. In addition to extending the effective period of the Act on concerning Improvement of Management of Specified Agricultural Products Processing Industry by five years, the bill also enables support for measures to stabilize the procurement of raw materials for specific agricultural processing industries affected by the soaring prices of imported raw materials, among other factors.

#### Main developments overseas in 2023 Termination of four-party agreement (UN, Türkiye, Ukraine, Russia) The four-party agreement between the UN, Türkiye, Ukraine and Russia to resume exports of Ukrainian grains and other products was terminated in July 2023 when Russia withdrew from the agreement. · Record-breaking maize harvest U.S. Record-breaking maize harvest Continued tightening of export inspections for fertilization Continued tightening of export inspections on raw materials for fertilizers since autumn 2021 Black Sea Middle East Destabilization of ship navigation in the Red Sea Since July 2023, the export of rice, Since December 2023, commercial vessels Since February 2023, navigation restrictions have excluding basmati rice, etc., has been in the Red Sea have been attacked by been imposed in the Panama Canal due to a drop it prohibited water levels caused by insufficient rainfall. militant groups, destabilizing ship navigation. Since December 2019, a cap has been placed on Argentina maize and wheat exports.

Case of production expansion of items that are highly dependent on overseas sources



Agricultural Cooperative Cooperation Obukuro Eino promotes increased wheat production through the use of large-scale machinery and the advanced utilization of agricultural land

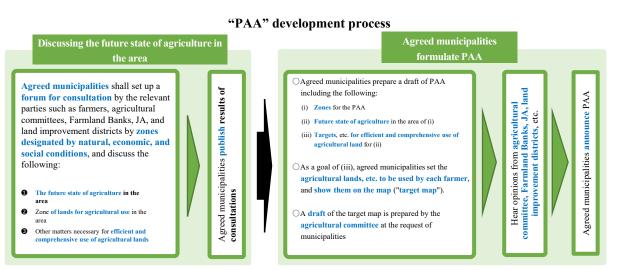
Source: Agricultural Cooperative Cooperation Obukuro Eino

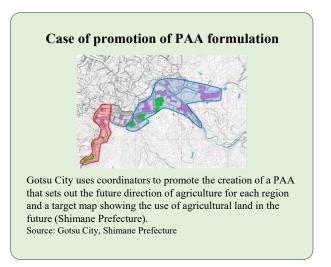


JA Kikuchi is rolling out the large-scale double-cropping of maize to secure the selfsupply of feed (Kumamoto Prefecture). Source: JA Kikuchi

## Formulating PAA, which set out the future approach to regional agriculture through dialogues with the region, and promoting the accumulation and consolidation of agricultural land by utilizing Farmland Banks

- Lunder the revised Agricultural Management Framework Reinforcement Act, which came into force in April 2023, municipalities shall formulate PAA based on the previous Farmers and Farmland Plans and taking into account discussions by farmers and others in the region. PAA shall include target maps that clarify the future approach to regional agriculture and the vision for agricultural land use for the future.
- PAA serve as a blueprint for the future of regional agriculture. It is important that regional agricultural stakeholders come together to formulate them in discussion with all the stakeholders of regional agriculture, while incorporating a wide range of opinions, including those of young people and women. The formulation of PAA is also important for strengthening food security, improving productivity through the introduction of smart agricultural technologies, and establishing food systems that are in harmony with the environment.
- > 1,636 municipalities plan to formulate PAA by March 2025. In order for each municipality to steadily advance the formulation of PAA by March 2025, it is necessary for the relevant organizations and groups to work together and systematically promote initiatives.
- MAFF has prepared a PAA Manual and drawn up key points for formulating PAA, including feed. It also introduces examples that can serve as references in the formulation of PAA, and holds online exchanges of opinions with leading regions.
- In addition to promoting the accumulation and consolidation of agricultural land using the Public Corporation for Farmland Consolidation (Farmland Bank), MAFF also promotes the systematic conservation and appropriate use of regional agricultural land in an integrated manner.





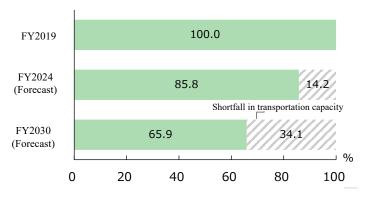
Source: Prepared by MAFF

#### Promoting response to the "2024 problem in the logistics industry"

## Addressing the pressing "2024 problem in the logistics industry" and promoting efforts to secure the distribution of agricultural, forestry and fishery products and food

- In April 2024, the number of overtime work hours for truck drivers has capped in order to alleviate long working hours in the logistics industry. If no measures are taken, it is estimated that there will be a shortfall in transportation capacity of 14.2% in FY2024 and 34.1% in FY2030, compared to FY2019.
- In June 2023, the Ministerial Meeting on Japan's Distribution Network Reform compiled a Policy Package for Logistics Innovation, setting out drastic and comprehensive measures that should be implemented urgently.
- In order to secure the logistics of agricultural, forestry and fishery products and food, MAFF promotes the reduction of long-distance transportation, the reduction of waiting and loading time, the improvement of loading efficiency and shift to large lot sizes, and the reduction of reliance on truck transportation.
- To support the efforts to secure logistics by agricultural, forestry and fishery producers across the country and for each product, as well as to reduce their burden, MAFF established the MAFF Logistics Headquarters headed by the Minister of Agriculture, Forestry and Fisheries.
- A bill to partially amend the Act on Advancement of Integration and Streamlining of Distribution Business and the Motor Truck Transportation Business Act was submitted to the 213th ordinary session of the Diet.

#### Impact of restrictions on working hours, etc. on logistics



Source: Prepared by MAFF based on materials from NX Logistics Research Institute and Consulting, Inc.

#### Case of a joint relay logistics hub



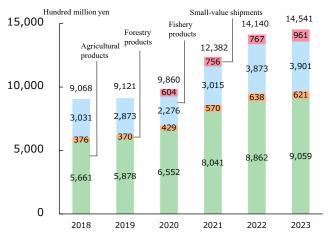
Meiko Flower Bridge KK has developed a joint relay logistics hub for the distribution of flowers, in response to the "2024 problem in the logistics industry" (Aichi Prefecture). Source: Meiko Flower Bridge KK

## Promoting the export of agricultural, forestry and fishery products and food

Exports of agricultural, forestry and fishery products and food reached a record high of 1,454.1 billion yen in 2023. Promoting a shift in the export destination countries/regions following the suspension of fishery imports by China, etc. in response to the discharge of ALPS treated water into the sea

- Exports of agricultural, forestry and fishery products and food in 2023 reached a record high of 1,454.1 billion yen, increasing marginally by 2.8% from the previous year.
- To achieve target exports of 2 trillion yen by 2025 and 5 trillion yen by 2030, there will be a strong push for initiatives such as promoting exports through all-Japan efforts centered on certified agricultural, forestry and fishery products and food export promotion organizations, providing support to overseas sites through export support platforms, creating model production areas for large-lot exports, and protecting and utilizing intellectual property, based on the Strategy to Realize Export Expansion of Agricultural, Forestry, Fishery and Food Products revised in December 2023.
- In response to Japan's discharge of ALPS treated water into the sea, China, Russia, Hong Kong, and Macau suspended the import of Japanese fishery products, etc. MAFF has strongly urged these countries/regions to immediately lift such restrictions that are not based on scientific evidence in cooperation with the relevant ministries and agencies.
- As a countermeasure in response to the suspension of fishery imports by China and other countries/regions, initiatives to diversify export destination countries/regions and regions are being implemented in cooperation with JETRO and other agencies, based on the policy package aimed at protecting the fishery industry.

#### Agricultural, fishery and forestry products and food exports



Source: Prepared by MAFF based on Ministry of Finance's "Trade Statistics"

## Diversification of export destination countries/regions in cooperation with JETRO



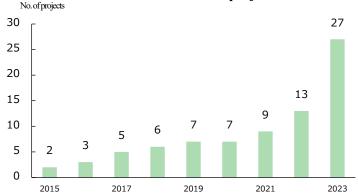
The Japan External Trade Organization (JETRO) first dispatched a visiting and business discussion mission to scallop processing facilities, etc. to Vietnam in January 2024. The mission visited a local scallop shucking and processing factories.

## Promoting the expansion of carbon credit initiatives in the agricultural sector

# Promoting the J-Credit Scheme to support efforts that contribute to reducing and absorbing greenhouse gas (GHG) emissions from natural sources such as forests, agricultural land, and livestock, with a view to achieving carbon neutrality by 2050

- To achieve carbon neutrality in 2050, it is important to promote private investment in decarbonization and accelerate "green transformation" (GX), which will transform industrial and social structures that are centered around fossil fuel-based energy into structures that are based on clean energy.
- The J-Credit Scheme is a scheme under which the government certifies GHG emission reduction and absorption as credits, enabling transactions that attract private funds. Under this scheme, agricultural, forestry and fishery operators will be able to earn income by selling credits created through their effort to reducing and absorbing greenhouse gas.
- The credits created under this Scheme can be used for reporting GHG emissions based on the Act on Promotion of Global Warming Countermeasures, as well as for various other purposes such as reporting to overseas initiatives and voluntary efforts by companies.
- As of the end of March 2024, there are 608 registered projects under the J-Credit Scheme. 27 projects are undertaken by farmers, and 17 of which used agricultural methodologies.
- To promote the J-Credit Scheme in the agricultural sector, MAFF is preparing dissemination manuals and simple calculation tools for the expected amount of certified credits, as well as working on formulating new methodologies.

## Registered project under J-Credit Scheme (Agriculture related) Cumulative number of projects



Source: Prepared by MAFF based on materials from the J-Credit Scheme Secretariat

Notes: 1) The number of registered projects was drawn up based on the fiscal year of project registration application.

2) Figures as of the end of FY2023.

#### Case of utilization of the J-Credit Scheme



The wide-area agricultural organization "3Rise" works with Kubota Corporation to prolong the mid-season drainage period for paddy rice cultivation, and to promote an initiative to create credit derived from the amount of reduced GHG emissions through this method (Fukui Prefecture). Source: Kubota Corporation

## Promoting highly productive agriculture through the introduction of smart agricultural technologies

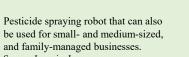
## Smart agricultural technologies based on digital technologies contribute to resolving various issues in agricultural sites

- Smart agriculture is useful for resolving on-site issues not only for large corporations but also for small, medium-sized, and family-managed businesses. On the other hand, it is effective to utilize agricultural support service entities in addressing the issue of the cost of introducing smart agricultural machinery. Start-ups that develop smart agricultural technologies and use such technologies to provide services tailored to the region are also entering the market.
- In order to enable the use of smart agricultural technologies in hilly and mountainous areas as well, it is necessary to develop smart agricultural technologies that can be used in narrow and steep fields, and to promote the sharing of agricultural machinery throughout the region.
- Smart agricultural technologies help to reduce the use of chemical pesticides and fertilizers, and contributes to reducing the impact on environment. It is also used in initiatives to realize the MIDORI strategy, such as the "Aigamo" robot, which stirs up the mud in rice paddies to suppress the growth of weeds and reduce the use of herbicides, and pinpoint spraying technology of pesticides using drones.
- The use of smart agricultural technologies is also effective in promoting agriculture and welfare collaboration. Technologies that support agricultural work by people with disabilities have also emerged in the industry, such as a smart fruit sorting system that simplifies the work of packing fruit.

## Case of smart agricultural technologies



Source: Legmin. Inc.





Power assist suit that can be used in hilly and mountainous areas Source: Power Assist International Corporation

#### Introduction of smart agricultural technologies at the G7 Agriculture Ministers' Meeting in Miyazaki

At the G7 Miyazaki Agriculture Ministers' Meeting held in Miyazaki City, Miyazaki Prefecture from April 22 to 23, 2023, MAFF exhibited smart agricultural technologies and conducted on-site demonstrations. At the exhibition venue, automatic green pepper harvesting robots and smart glasses were introduced, while demonstrations were conducted for self-driving tractors and drones at the demonstration venue.



Students from agricultural high schools conducting demonstrations of smart agricultural technologies.

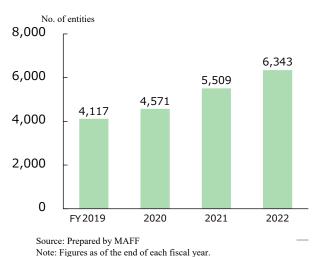
Source: G7 Agriculture Ministers' Meeting in Miyazaki Cooperation and Promotion Council

## Promoting agriculture and welfare collaboration to resolve agricultural and welfare challenges

The number of entities engaged in agriculture and welfare collaboration increased by 15% compared to the previous fiscal year. Both the agriculture and welfare sectors acknowledge the benefits of agriculture and welfare collaboration

- Agriculture and welfare collaboration is an initiative that contributes to the development of agricultural management and creates self-confidence and a sense of purpose for people with disabilities through their success in the agricultural sector, while also realizing their participation in society.
- According to an FY2022 survey, the number of entities engaged in agriculture and welfare collaboration has increased by 15.1% from the previous year to 6,343 entities. There are high expectations for agricultural sector from the perspective of increasing wages for people with disabilities.
- > 77.3% of agricultural management entities engaged in agriculture and welfare collaboration responded that the initiatives were effective in improving profitability. In addition, 87.5% of the employment facilities for persons with disabilities that had engaged in agriculture and welfare collaboration responded that the initiatives had a positive effect.
- In order to spread agriculture and welfare collaboration initiatives nationwide and establish them in every region, MAFF held the inaugural "Noufuku Week" in October 2023. During this period, agriculture and welfare collaboration events were held at 30 locations nationwide in cooperation with businesses and other entities engaged in agriculture and welfare collaboration in various regions.

#### Number of entities engaged in agriculture and welfare collaboration





## Case of agriculture and welfare collaboration



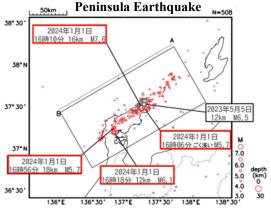
Social Welfare Corporation Yuzurihakai assigns farm work to people with disabilities based on their individual characteristics, providing them with a place to play and active role while earning high wages, and contributing to securing the next generation of agricultural workers in the region (Gunma Prefecture). Source: Social Welfare Corporation Yuzurihakai

#### Promoting response to the 2024 Noto Peninsula Earthquake

# On January 1,2024, an earthquake struck in the Noto region of Ishikawa Prefecture causing severe damage. A Major Disaster Management on-site Headquarters was established, government officials were dispatched to the affected areas, food assistance was provided

- > On January 1, 2024, a magnitude 7.6 earthquake struck in the Noto region of Ishikawa Prefecture, and seismic intensity of 7 was observed in Wajima City and Shika Town in the same prefecture. Sea level changes due to the accompanying tsunami were also observed along the coast.
- Immediately after the disaster, the government dispatched police, firefighters, and the Self-Defense Forces to the affected areas to obtain information on the damages and conduct search and rescue activities. It also set up Major Disaster Management on-site Headquarters and dispatched many officials from the respective ministries and agencies to the affected areas to open up roads, provide relief supplies, and carry out secondary evacuations to protect the lives and health of evacuees. The government worked as one to implement emergency disaster response measures.
- MAFF provided support by sending food and other items to the affected local governments since January 2. In addition, MAFF dispatched officials to the affected sites to facilitate food supply and logistics, as well as to check the damage to agricultural land and agricultural facilities and ensure their early restoration. To respond quickly to the restoration and reconstruction of agricultural facilities, MAFF established bases in three locations under the jurisdiction of the Hokuriku Regional Agricultural Administration Office by the end of March.
- The damage to the agriculture, forestry and fisheries in Ishikawa and other prefectures was extensive, including damage to agricultural land and agricultural facilities, animal house barns, and forest facilities, as well as large-scale hillsides collapse and damage to fishing ports and fishing grounds due to the uplift of the seabed. Livestock farmers in the Noto region suffered severe damage, including water outages, facility damage, waste of products and damage to livestock. In addition, agricultural land and facilities necessary for rice planting were seriously damaged.
- Food companies that produce soy sauce, miso, confectionery, and processed seafood products were also severely damaged, including damage to production and storage facilities.

#### **Epicenter distribution map of the 2024 Noto**





Minister of Agriculture, Forestry and Fisheries speaking at the MAFF Emergency Headquarters for Natural Disaster Countermeasures



Providing free hot meals in areas affected by the disaster

To ensure the rapid recovery of the affected areas, a "Package of Measures to Support the Daily Lives and the Livelihoods of the Disaster Victims" was prepared by the government. With a view to the future vision for the region, the necessary measures will be taken to help agricultural, forestry and fisheries to rebuild their livelihoods as soon as possible

- On January 11, 2024, the government designated the 2024 Noto Peninsula Earthquake Disaster as a disaster of extreme severity. This designation enables the implementation of measures in the agricultural sector to reduce the burden on affected farmers, etc. in disaster reconstruction projects for agricultural land, agricultural facilities, and communal facilities.
- On January 25, the government compiled a "Package of Measures to Support the Daily Lives and the Livelihoods of the Disaster Victims," comprising of measures that should be implemented urgently.
- In the agriculture, forestry and fisheries sector, with a view to the future vision for the region, the necessary measures will be implemented toward the resumption of these industries and actions will be taken to quickly restore agricultural land, agricultural facilities, animal quarters, etc., with the aim of rebuilding the livelihoods of agricultural, forestry and fisheries as soon as possible, and achieving creative recovery by utilizing the Satoyama and Satoumi brand for the Globally Important Agricultural Heritage region of Noto.
- The government will listen carefully to the voices of those from the affected areas and put every effort into supporting the rebuilding of the lives and livelihoods of the affected people, with the resolve to "put itself in the position of the affected areas and the affected people and do everything it can."

#### MAFF's initiatives related to the 2024 Noto Peninsula Earthquake

## Personnel and technical support toward the recovery of damaged agricultural land and irrigation and drainage systems

- Immediately after the disaster, government officials (MAFF-SAT) worked with the prefectural government and relevant organizations to inspect and survey agricultural facilities, including reservoirs (approximately 2,000 reservoirs).
- MAFF-SAT teams in charge of municipalities made individual visits to explain the systems and procedures for restoring agricultural land and irrigation/drainage systems, and to support the preparation of disaster assessments.
- It was efficiently improved by increasing the number of indoor assessments, and the utilization of the scheme for starting construction before assessments was promoted.



Support for emergency disaster countermeasures by MAFF-SAT (installation of drainage pump at a reservoir)

#### Activities to publicize assistance measures, and provision of support

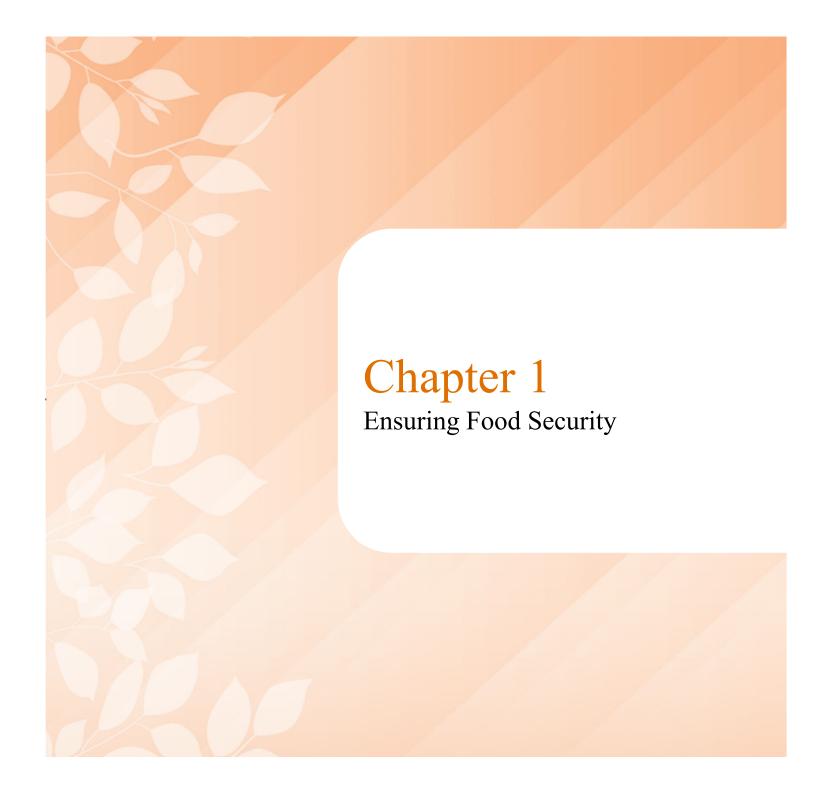
- A joint team was established between the national government and Ishikawa Prefecture to conduct briefing sessions at agricultural cooperatives in the prefecture.
- In matters related to agriculture, staff from the prefecture, agricultural cooperatives, and MAFF were stationed at agricultural cooperatives in the prefecture and consultation desks were established. These bases were used to accelerate attentive support in preparation for the planting season.
- In matters related to fisheries, on-site briefing sessions were held at the Ishikawa Prefectural Fisheries
   Cooperative Association head office and branch offices.



Providing support at an agricultural consultation desk



Fishery-related briefing session at the Suzu venue



#### Chapter 1 **Ensuring Food Security**

In FY 2022, the total food self-sufficiency ratio was 38% on a calorie basis, which was the same as the previous year, while 58% on a production value basis, which was decreased by 5 points from the previous year.

- The total food self-sufficiency ratio on a calorie basis has been declined over the long term due to a decrease in the rice consumption as well as an increase in the consumption of livestock products that highly relies on the import of feed. Since 1998, it has remained at around 40%.
- The total food self-sufficiency ratio on a calorie basis remained at 38% in FY2022, the same as in the previous fiscal year. While wheat yield decreased to the average level after a good harvest in the previous year, alongside a reduction in seafood production, there was a decrease in the consumption of oils and fats, which rely heavily on imports for their raw materials. On a production value basis, total food self-sufficiency ratio fell by 5 points to 58% compared to the previous fiscal year. This was due to an overall rise in import prices caused by the increase in international grain prices and production material costs, logistics expenses, and exchange rates.
- The domestic food production ratio on a calorie basis (that does not reflect the feed self-sufficiency ratio) was 47%, the same as in the previous fiscal year. The feed self-sufficiency ratio sufficiency ratio was 26%, the same as in the previous fiscal year.
- The food self-sufficiency potential index has been shown in two different cropping systems: i) if rice and wheat are dominant crop among total agriculture areas, it supplies 2,368kcal/person/day which has been flat in recent years, amid a decrease in the area of farmlands. ii)On the other hand, if potato is dominant crop, it supplies 1,720kcal/person/day which has been declined due to a decrease in the labor force (total working hours).

#### Total food self-sufficiency ratio



Source: MAFF, "Food Balance Sheet" Notes:1) FY2022 shows an estimate.

2) The food self-sufficiency ratio is an indicator of the amount of domestic food consumption that is covered by domestic production.

#### ratio 100 Domestic food production ratio 85 90 (production value basis) 80 73 76 61 60 55 40 omestic food production ratio (calorie supply basis) 20 25 27 Feed self-sufficiency ratio 0

Source: MAFF, "Food Balance Sheet" Notes:1) FY2022 shows an estimate.

1985

FY 1965

2) The domestic food production ratio reflects the activities of the livestock industry and evaluates the status of domestic production, regardless of whether the feed is domestically produced or imported

2005

2022

#### Domestic food production ratio and feed self-sufficiency Food self-sufficiency index kcal/person per day 3,000 Potato dominant cropping 2,368 2,786 2,000 1,720 Rice and wheat dominant cropping 1,806 0 2022 2013 2017 FY 2009

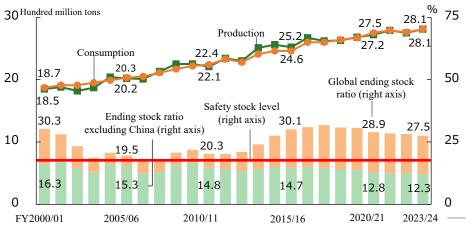
Source: Prepared by MAFF

Note: The food self-sufficiency potential index is an indicator that evaluates the potential calorie supply labor force per person per day, in the case of maximum use of farmlands, etc. and when calorie efficiency is maximized, with consideration of a certain degree of nutritional balance.

#### Increase in production and consumption of grains in FY2023/24 compared to the previous fiscal year

- According to a document released by the U.S. Department of Agriculture, the total global grain production in FY2023/24 is expected to increase by 2.2% from the previous fiscal year to 2.81 billion tons. Consumption is expected to increase by 1.8% from the previous fiscal year to 2.81 billion tons in FY2023/24 due to population growth and rising income levels in developing countries.
- The ending stock ratio is expected to be 27.5%, down from the previous fiscal year (28.2%). Although this is higher than the FAO's safety stock level of 17% to 18%, the ending stock ratio excluding China is only 12.3%, signifying that food shortages and price hikes are likely to occur in the event of a global crop failure.

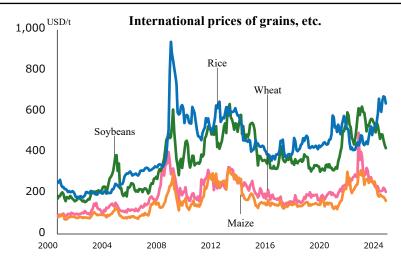
#### Global grain production, consumption, and ending stock ratio



Source: Prepared by MAFF based on U.S. Department of Agriculture's "PS&D," "World Agricultural Supply and Demand Estimates"

#### International prices for wheat, maize, and soybeans fall to around the level before the invasion of Ukraine

- International prices of grains and other crops have been rising in recent years due to demand backed by the increase in livestock consumption in emerging countries, increased demand for energy from biofuels, and the effects of global climate change, among other factors.
- International wheat prices reached a record high in March 2022 due to prolonged poor weather conditions such as high temperatures and dry weather conditions in major exporting countries, as well as the Russia's invasion of Ukraine. Although prices were at a higher level than before 2020, as of March 2024, they had fallen to the level before the invasion of Ukraine.
- International prices of maize and soybeans have been rising due to the dry weather conditions in South America, etc., compared to before 2020. However, as of March 2024, they had fallen roughly to the level before the invasion of Ukraine.

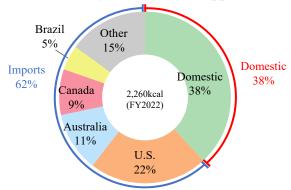


Source: Prepared by MAFF based on data from the Chicago Board of Trade and Securities and Exchange Commission, Thailand

#### 80% of food supply comes from domestic production and the top four importing countries

- Domestic production and the top four importing countries (U.S., Australia, Canada, and Brazil) account for approximately 80% of Japan's food supply on a calorie supply basis.
- To maintain stable food supply in the future, it is necessary to enhance domestic products, and to maintain stable relationships with major importing countries.

#### Composition by country/region on a calorie supply basis (estimates)



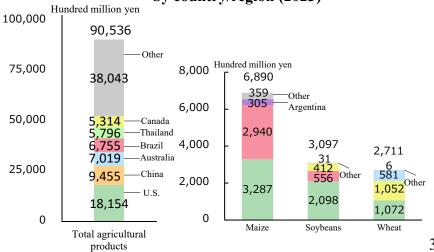
Source: Prepared by MAFF

Note: "Imports" are equal to total calorie minus domestic calorie, excluding exports and inventory.

#### Japan's import structure for major agricultural products is reliant on a small number of specific countries

- Japan's agricultural imports in 2023 were 9,053.6 billion yen, down 2.0% from the previous year.
- The top six importing countries account for about 60% of the value of Japan's agricultural imports.
- Looking at the individual products, the top two countries account for 80% to 90% of Japan's maize, soybeans and wheat supply. 99.8% of Japan's wheat supply comes from the top three countries: U.S, Canada, and Australia.
- Japan's import structure for major agricultural products is heavily reliant on a small number of specific countries, and it is crucial to increase domestic agricultural production, while at the same time, stabilize and diversify imports by fostering and augmenting good relationships with importing countries.

#### Value of imports for major agricultural products by country/region (2023)



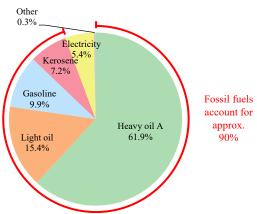
Source: Prepared by MAFF based on Ministry of Finance's "Trade Statistics"

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Japan's agriculture, forestry and fishery sector relies on fossil fuels for more than 90% of its energy use, and much of its food and production materials are imported by maritime transport, making it even more important to strengthen the resilience of supply chains

- From the perspective of food security, supply chain disruptions have a significant impact on food supply. Therefore, ensuring the resilience of supply chains is an important issue.
- The agriculture, forestry and fishery sector relies on fossil fuels for more than 90% of its energy use, while electricity use accounts for only 6% of the total. Sustainable energy procurement that does not rely on fossil fuels is vital for the sustainable development of this sector.
- Crude oil prices rose significantly immediately after Russia's invasion toward Ukraine. Although prices have generally been on a downward trend since FY2022, they have remained persistently high and unstable.
- To ensure stable imports in normal times for certain products, of which domestic demand cannot be met by domestic production, measures will be taken to support the formation of investment projects for grain facilities in originating countries, to promote intergovernmental dialogues with exporting countries, and to enhance information sharing between the public and private sectors at home.
- To prevent unforeseen circumstances and strengthen response capabilities, it is effective to advance efforts to ensure a stable supply of food in normal times in preparation for contingencies, reduce excessive reliance on imports, and keep track of domestic and international food demand and supply in normal times.

## Energy consumption by energy source in the agriculture, forestry and fishery sector



Source: Prepared by MAFF based on METI's "FY2021 Comprehensive Energy Statistics"

Note: "Other" includes lubricating oil, LPG, city gas, and heat.

#### Crude oil prices USD/barrel 150 120 90 60 30 0 Jan Jan Jan Jan Mar 2021 2022 2024 2023

Source: U.S. Energy Information Administration

Notes: 1) Crude oil prices are prices of West Texas Intermediate (WTI) crude oil, which is the representative benchmark crude oil in the U.S. 1 barrel = 42 gallons = 159ℓ

2) Figures as of the publication date on April 17, 2024.

# Case of strengthening feed transportation system through improvement of port infrastructure



Kushiro City has developed an international logistics terminal that can handle large ships at Kushiro Port, where ships transporting grains dock (Hokkaido). Source: Kushiro West Port Development Wharf Co., Ltd.

## The importance of addressing the problem of "Food Access," which is not able to obtain the foods that they need to lead healthy dietary habits.

- According to a survey conducted by the Japan Finance Corporation in January 2024, 34.2% of the respondents answered that they could not access grocery stores within 15 minutes by public transportation or on foot.
- According to the same survey, 40.1% of the respondents answered that they could not purchase groceries at reasonable prices for healthy meals.
- ➤ In Japan, ensuring smooth food access is a challenge even in normal times.



Source: Prepared by MAFF based on the Japan Finance Corporation's "Consumer Trends Survey (January 2024)"

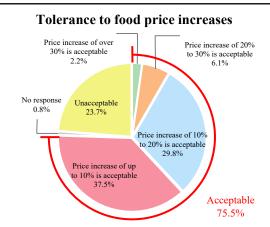
# Ensuring smooth food access, in addition to supporting the establishment of systems in which local stakeholders can cooperate, strengthening support for shopping assistance, food banks, children's cafeterias, etc.

- Support will be provided to establish systems that facilitate cooperation among local stakeholders such as producers, food businesses, agricultural cooperatives, councils of social welfare and NPOs, with a focus on local governments. Support will be provided toward enhancing the efficiency of mainline logistics from production areas to consumption areas, as well as initiatives to provide "shopping support" tailored to the region, such as mobile sales.
- Support will be provided to food banks and other organizations that are implementing largescale, advanced initiatives to promote the reduction of food loss food loss and waste through the provision of unused food.
- Support will be provided for efforts to offer various opportunities for shared meals in the community, such as children's cafeterias, from the perspective of promoting shokuiku (food and nutrition education). Government stockpiled rice will be provided free of charge (a total of approximately 150 tons in FY2023).

# Case of children's cafeterias Dozaka Gohan promotes children's cafeterias targeted at families with children (Tokyo). Source: Dozaka Gohan

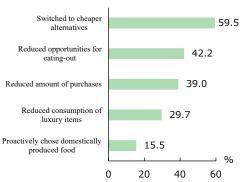
# Regarding the recent hike in food prices, 75.5% of the respondents considered the price increases acceptable, while about 60% had actually switched to cheaper alternatives

- According to a public opinion survey conducted by the Cabinet Office in September and October 2023, 75.5% of the respondents felt that food price increases are within a tolerable range. Of these, the largest proportion (37.5%) felt that a price increase of up to 10% is acceptable.
- On the other hand, in response to rising food prices over the past two years, about 60% of the respondents had actually switched to cheaper alternatives.



Source: Cabinet Office "Public Opinion Survey on the Role of Food, Agriculture, and Rural Areas" (published in February 2024)

## Response to rising food prices in the past two years

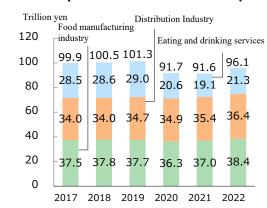


Source: Cabinet Office, "Public Opinion Survey on the Role of Food, Agriculture, and Rural Areas" (published in February 2024)

#### Domestic production of the food industry in 2022 increased to 96.1 trillion yen from the previous year

- The domestic production of the food industry in 2022 increased 4.9% from the previous year to 96.1 trillion yen, due to factors such as the gradual recovery of spending on eating-out, which had declined under the impact of the COVID-19 pandemic.
- Looking at the composition of food industry by size of company, the majority are small- and medium-sized enterprises. Many companies are facing issues with business succession due to the aging of the business owners.
- Support will be provided for the development of new products by switching to domestic raw materials, as well as toward efforts to boost cooperation with production areas.
- The establishment of an environment for creating new markets based on the Food tech Promotion Vision, will be promoted.

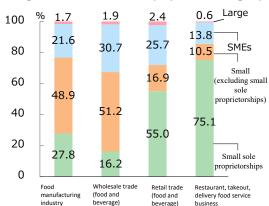
#### **Domestic production of the food industry**



Source: Prepared based on MAFF's "Economic Accounts for Agriculture and Food Related Industries"

Note: Food manufacturers include beverages and tobacco categories.

#### Composition of food industry by size of company



Source: Prepared by MAFF based on the Ministry of Internal
Affairs and Communications, METI "FY2021 Economic
Census - Activity Survey"

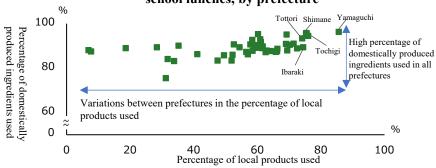
Note: Figures for 2021

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## Promoting *Shokuiku* (food and nutrition education) based on "The Fourth Basic Plan for the Promotion of *Shokuiku*", and promoting the use of local products in school lunches

- Based on The Fourth Basic Plan for the Promotion of *Shokuiku*, MAFF is implementing initiatives such as holding "The 18th National Convention on Promotion of *Shokuiku* in Toyama", holding "The 7th Awards for Shokuiku Activities", and utilizing the National Network for Shokuiku Promotion.
- School lunches are provided with the aim of maintaining and improving children's health through the provision of nutritionally balanced meals. The use of locally produced agricultural, forestry and fishery products in school lunches is an effective way of promoting local production for local consumption.
- While there are variations in the proportion of local products used in school lunches among prefectures, the proportion of domestic ingredients used exceeds 80% in most prefectures.
- Promoting efforts for preservation and succession of *Washoku* culture.

## Percentage of local products and domestically produced ingredients used in school lunches, by prefecture



Source: Prepared by MAFF based on MEXT "2022 Survey on the Use of Local and Domestic Products in School lunches

Note: Figures for FY2022



Initiatives to raise awareness of Washoku culture by a Washoku Culture Inheritance Leader



Cooking demonstration by a chef at an event to promote *Washoku* culture

# Promoting activities to ensure food safety and consumer trust based on scientific knowledge, etc. and to ensure consumer trust in food products

- The number of incidents from food poisoning in 2023 was 1,021, an increase of 59 cases from the previous year.
- Taking into account the latest scientific knowledge and international trends etc., concerted efforts are being made to ensure food safety. Simultaneously, efforts are being made to promote the dissemination of information on food safety.
- With regard to production materials such as pesticides and veterinary medicines, in order to ensure the safety of agricultural, livestock and fishery products, MAFF sets and reviews usage and safety standards based on scientific knowledge and international standards.
- Efforts are made to secure trust in food among consumers, such as by ensuring appropriate food labelling and raising awareness of traceability.

# G7 Agriculture Ministers' Meeting held in Miyazaki, Japan, and the G7 Agriculture Ministers' Communiqué and "Miyazaki Action" adopted toward building resilient and sustainable agriculture and food systems

- MAFF hosted the G7 Agriculture Ministers' Meeting in Miyazaki on April 22 and 23, 2023, and the ministers in charge of domestic agricultural production gathered.
- The meeting was chaired by Japan, and discussions were held among the countries towards resilient and sustainable agriculture and food systems. Japan introduced its MIDORI strategy, stressing the need to achieve both agricultural productivity and sustainability, and asserting the importance of developing and promoting innovation.
- The G7 Agriculture Ministers' Communiqué, which summarized the discussions at the meeting, and the Miyazaki Action, which summarized the actions that G7 countries should take to build more productive, resilient, and sustainable agriculture and food systems, were adopted.
- The G7 Agriculture Ministers' Communiqué and Miyazaki Action clearly state that existing domestic agricultural resources should be utilized in a sustainable manner, and efforts should be made to explore ways to strengthen local, regional and global food systems while facilitating trade.



Minister of Agriculture, Forestry and Fisheries engaged in discussions at the G7 Agriculture Ministers' Meeting in Miyazaki



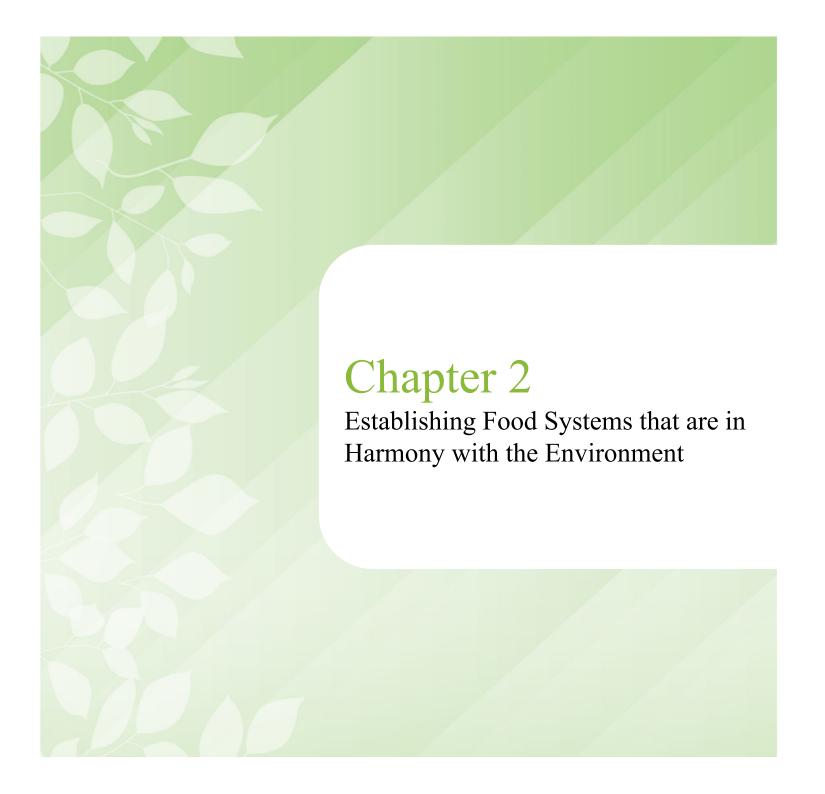
Agriculture ministers of the respective countries visiting a mango farm



High school students presenting their proposals at the G7 Agriculture Ministers' Meeting in Miyazaki Source: G7 Agriculture Ministers' Meeting in Miyazaki Cooperation and Promotion Council

#### Start of initiatives toward support and cooperation to Ukraine in the agricultural sector

- MAFF and the Ministry of Agrarian Policy and Food of Ukraine agreed to establish the Japan-Ukraine Joint Task Force on Revitalization Strategy of Agriculture (JTF) in October 2023. The two countries have launched support and cooperation efforts in the recovery and reconstruction of Ukraine's agricultural sector.
- Efforts will be made to promote agricultural cooperation with Africa and the ASEAN Plus Three Emergency Rice Reserve (APTERR).

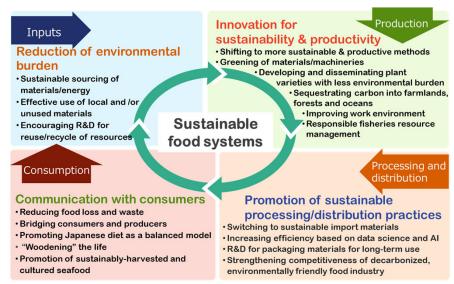


## **Chapter 2** Establishing Food Systems that are in Harmony with the Environment

#### Promoting efforts to reduce burden on the environment at production sites, toward realizing the MIDORI Strategy

- The MIDORI Strategy is a policy guideline that strategically addresses the issue of boosting productivity potential and sustainability in the food and agriculture, forestry and fishery industries through innovation, from a medium- to long-term perspective. It presents goals to be achieved by 2050 through the promotion of the development and social implementation of innovative technologies and production systems, alongside initiatives at each stage of procurement, production, processing/distribution and consumption.
- The MIDORI Act came into effect in July 2022. Under the Act, producers engaged in efforts to reduce burden on the environment and businesses that support these activities are supported through special depreciation and loan systems. All prefectures published their basic plans by the end of March 2023.
- Based on the MIDORI Act, the certification of plans for producers working to reduce environmental burden commenced in earnest, with more than 4,000 people certified as of the end of March 2024. As for the certification of plans for businesses that produce and sell, as well as research and develop, machines and materials that are useful toward reducing the burden on the environment, 64 business plans have been certified as of the end of March 2024. Model districts that aim to create region-wide initiatives have been established in 29 areas of 16 prefectures nationwide.

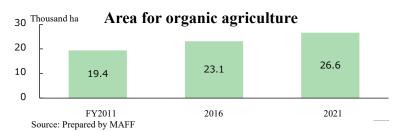
#### Specific initiatives at each stage of the MIDORI Strategy





## The area for organic agriculture tends to increase. Agreements on managing cultivation for organic agriculture are being signed

- The area for organic agriculture increased by 5.6% in FY2021 compared to the previous fiscal year to 26,600 ha. This accounts for 0.6% of the total cultivated land area.
- MAFF supports initiatives such as guidance activities conducted by private organizations that provide organic agriculture cultivation techniques across wide areas, human resource development through assistance for farmers to acquire skills, the establishment of a stable supply system for organic agricultural products by organic farmer groups, etc., and stimulation of demand in collaboration with businesses.
- As of the end of January 2024, 93 municipalities have begun working on developing "organic villages," model production areas where municipalities take the lead in expanding organic agriculture through consistent efforts from production to consumption.
- ➤ In December 2023, a cultivation management agreement for promoting organic agriculture, the first of its kind in Japan, was concluded in Hitachiomiya City, Ibaraki Prefecture, launching an initiative to promote the establishment of organic agricultural complexes throughout the region.



#### Percentage of area for organic agriculture by municipality (2021)

	Municipality	Area for organic agriculture (ha)	Percentage of cultivated land area
1	Umaji Village (Kochi Prefecture)	52	81%
2	Nishikawa Town (Yamagata Prefecture)	75	15%
3	Shibata Town (Miyagi Prefecture)	123	13%
4	Kosaka Town (Akita Prefecture)	90	11%
5	Gotsu City (Shimane Prefecture)	63	10%

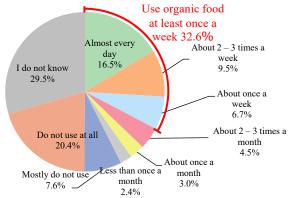
Source: Prepared by MAFF

Note: Only municipalities that responded "Yes" to publication in the "Survey on the Promotion of Organic Agriculture in FY2021 (for Municipalities)" are listed.

#### Approximately 30% of consumers use organic food at least once a week

- The organic food market is expanding and estimated to reach 224 billion yen in 2022, up from 185 billion yen in 2017. The percentage of consumers who use organic food at least once a week is 32.6%.
- In order to promote the expansion of sales channels and the cultivation of new demand for organic agricultural products, MAFF supports efforts to handle new organic agricultural products and match producers with businesses.
- As of the end of March 2024, 111 companies are participating in "Domestic Organic Supporters," a MAFF platform to facilitate cooperation with businesses to stimulate demand for domestically produced organic food.

#### Frequency of organic food use



Source: MAFF "Project to Review Methods for Estimating the Market Scale of Organic Food and Area for Organic Agriculture" (published in April 2023)

## Promoting an initiative to visualize farmers' efforts to reduce their environmental burden, so that the efforts are communicated to consumers

- To accelerate sustainable consumption, the "visualization" initiative to present farmers' efforts to reduce their environmental burden is promoted.
- With a new label design, a full-scale implementation was launched in March 2024. In the calculation and evaluation scheme, avoided GHG emission in their farming practices is presented with the number of stars on the label. For the full-scale implementation, the scope of this scheme was extended to include 23 agricultural products (rice and vegetables, etc.).
- For rice, biodiversity conservation efforts can be indicated on the label (at the bottom half of the label) in addition to the GHG emission reduction efforts.



Minister of Agriculture, Forestry and Fisheries announcing the new label design

# Adoption of the ASEAN-Japan MIDORI Cooperation Plan toward building resilient and sustainable agriculture and food systems based on the MIDORI Strategy

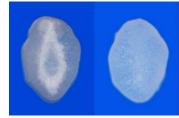
- At the ASEAN-Japan Ministers of Agriculture and Forestry Meeting held in Malaysia in October 2023, the ASEAN-Japan MIDORI Cooperation Plan proposed by Japan was adopted.
- ➤ Japan's technologies, developed through innovation based on the MIDORI Strategy, will be utilized to build resilient and sustainable agriculture and food systems in the ASEAN region.
- Based on the plan, development of further cooperation projects with ASEAN countries will be promoted.

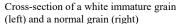


ASEAN-Japan Ministers of Agriculture and Forestry Meeting

#### Promoting initiatives to reduce GHG emissions in the agriculture, forestry and fishery industries

- Figure 2 Efforts are made to reduce GHG emissions in the agriculture, forestry and fishery sector.
- Initiatives are promoted, such as extending the midseason drainage period in rice cultivation and autumn plowing, managing livestock waste in livestock farming, and developing and promoting technologies to reduce GHG emissions caused by fermentation in the digestive tracts of livestock.
- The development and promotion of varieties and technologies to adapt to the effects of climate change are advanced.
- The 28th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP28) was held in the United Arab Emirates from November to December 2023. The Emirates Declaration on Sustainable Agriculture, Resilient Food Systems and Climate Action was announced at the Conference.







Poor coloration of apples

Decline in quality due to high temperatures Source: NARO

# Promoting initiatives that focus on biodiversity conservation in the agriculture, forestry and fishery sector based on the Biodiversity Strategy of the Ministry of Agriculture, Forestry and Fisheries

- The Kunming-Montreal Global Biodiversity Framework, adopted in December 2022, includes goals related to the agriculture, forestry and fishery sector, such as protecting and conserving at least 30% of land, waters and seas ("30 by 30"), and reducing excess nutrients lost to the environment and the overall risk from highly hazardous chemicals.
- ➤ It is strongly promoted the initiatives that focus on biodiversity conservation in the agriculture, forestry and fishery sector, based on the Biodiversity Strategy of the Ministry of Agriculture, Forestry and Fisheries revised in March 2023.

#### Case of biodiversity conservation





Kanazawa Daichi Co.,Ltd. plows mainly dilapidated farmland with an emphasis on biodiversity and promotes large-scale organic cultivation for rice, soybeans, and other crops, attracting storks (Ishikawa Prefecture).

Source: Kanazawa Daichi

#### Promoting the utilization of biomass and introduction of renewable energy

- Based on the Basic Plan for Promoting Biomass Utilization, promote the comprehensive use of biomass not only in rural areas but also in urban areas. This Plan promotes the cultivation of resource crops on agricultural land to prevent the occurrence of dilapidated farmland.
- By cooperating with the relevant ministries and agencies to promote new initiatives for the utilization of biomass, such as expanding the use of sewage sludge as fertilizer and promoting the introduction of sustainable aviation fuel (SAF), Japan is working toward realizing regional revitalization and improvements in income.
- Fifforts are also underway to manufacture and use high-purity biodiesel fuel made from plant-based used cooking oil.
- > By FY2023, the number of selected Biomass Industrial Cities has increased to 103 municipalities.
- By FY2022, the number of municipalities that have formulated basic plans based on the Act on Promoting Generation of Electricity from Renewable Energy Sources Harmonized with Sound Development of Agriculture, Forestry and Fisheries, has increased to 87, and the number of certified facility development plans has increased to 107.



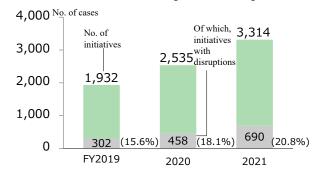
Biogas power generation facility that uses livestock waste and food waste, etc. as raw materials.

Source: biokurasix Handa Ltd.

## While farming photovoltaics efforts are expanding, there have been cases in which problems have occurred in farming on the farmland under the photovoltaic panels

- ➤ The area of farming photovoltaics, which enables power generation while continuing with farming operations, is increasing year by year. In FY2021 it increased by 149 ha to 1,007 ha, compared to the previous year.
- On the other hand, about 20% of the ongoing initiatives as of the end of FY2021 are not managing agricultural land appropriately, causing disruptions to farming operations. For initiatives where the problems are caused by business operators, the agricultural committee or the party with the authority to permit agricultural land conversion is providing guidance to improve the farming situation. However, there have been cases where the re-approval of agricultural land conversion required for business continuity is not granted due to failure to follow guidance for improvement.
- In March 2024, approval standards for temporary conversion were positioned in the law, and guidelines were formulated.

## State of disruptions to farming operations in the farmland under the photovoltaic panels



#### Promoting the transformation to sustainable food industries

- ➤ MAFF conducted a Study Group for the Sustainable Development of the Food Industry in August 2023, with the aim of facilitating discussions among stakeholders in the food system and organizing concrete food policies toward the realization of a sustainable food system in the future.
- In procuring raw materials by food companies, initiatives which take into account the environment and human rights in the production sites are promoted.
- In order to improve labor productivity in the food manufacturing industry, MAFF provides systematic support toward research and development of cutting-edge technologies such as AI and robots, from demonstration and improvement to promotion of such technologies.

#### Case of sustainable raw material procurement

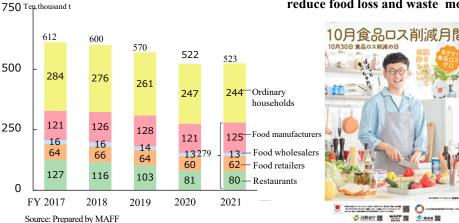


FUJI OIL HOLDINGS INC. promotes the sustainable procurement of the main raw materials such as palm and cocoa, toward the realization of "main raw material procurement that is considerate of the environment and human rights" (Osaka). Source: FUJI OIL HOLDINGS INC.

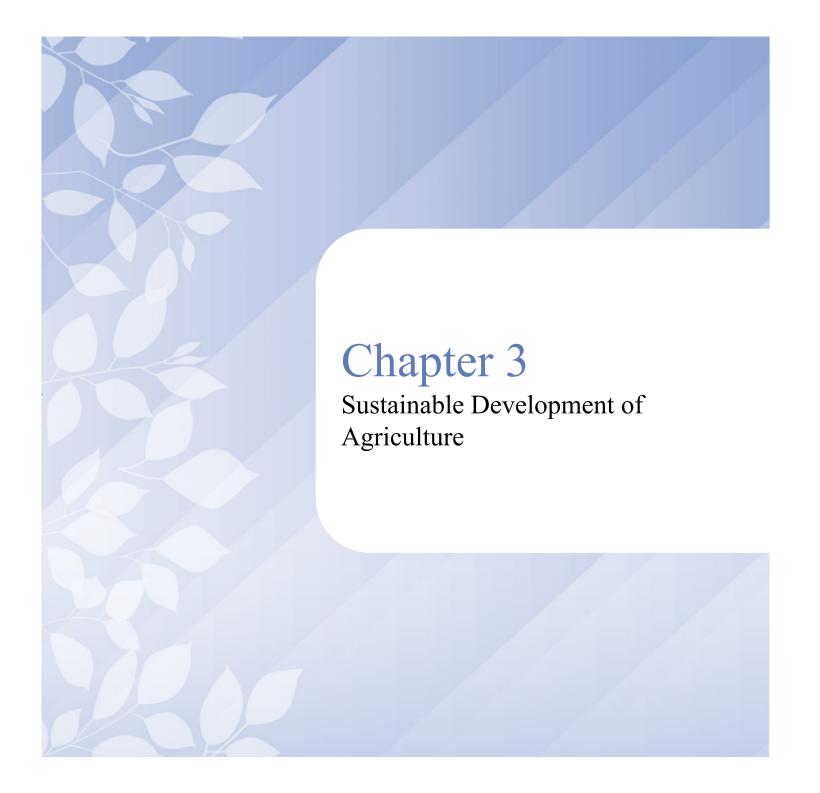
#### Review of commercial practices such as easing delivery deadlines to reduce commercial food loss and waste

- The volume of food loss and waste is estimated to have increased by 10,000 tons to 5.23 million tons in FY2021 compared to the previous year., 2.44 million tons of them is generated from ordinary households (domestic food loss and waste) and 2.79 million tons from food industry (commercial food loss and waste).
- ➤ MAFF promotes the review of commercial practices such as easing delivery deadlines to reduce commercial food loss and waste.

# Estimated volume of food loss and waste generated and location of food loss generated Tep.thousand t Poster promoting campaign to reduce food loss and waste month



Note: The volume of commercial food loss generated is the total volume of food loss and waste generated by food manufacturers, food wholesalers, food retailers, and the restaurant industry.

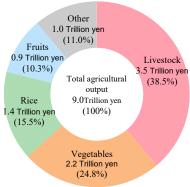


## **Chapter 3 Sustainable Development of Agriculture**

#### Total agricultural output in 2022 increased by 1.8% from the previous year to 9 trillion yen

- Total agricultural output in 2022 rose by 1.8% compared to the previous year, to 9 trillion yen. This was due to an increase in the prices of rice and vegetable crops, as well as livestock such as pigs and chickens. Looking at agricultural output by sector, livestock made up the largest proportion at 3.5 trillion yen.
- ➤ By prefecture, Hokkaido topped the list with 1.3 trillion yen, followed by Kagoshima with 500 billion yen and Ibaraki with 400 billion yen.
- Agricultural production income in 2022 fell by 7.3% compared to the previous year, to 3.1 trillion yen, due to an increase in prices of agricultural production materials.

#### Total agricultural output 2022



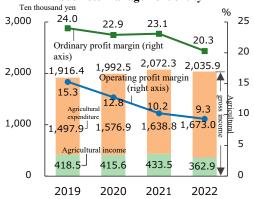
Source: MAFF, "2022 Statistics of Agricultural Income Produced"

Notes: "Other" is the total of wheat, cereals, pulses, potatoes, flowers, industrial field crops, other crops, and processed agricultural products.

## In 2022, agricultural income per business management entity decreased by 710,000 yen from the previous year to 3.63 million yen

- In 2022, the agricultural gross income per business management entity was 20,359 thousand yen, down 364,000 yen from the previous year. Agricultural expenditure increased by 342,000 yen from the previous year to 16.73 million yen.
- Agricultural income, which is calculated by subtracting agricultural expenditure from agricultural gross income, decreased by 706,000 yen from the previous year to 3,629 thousand yen due to increases in fertilizer and manure costs, feed costs, power and utility costs, and other expenditures. The ordinary profit margin decreased by 2.8 points from the previous year to 20.3%.
- The levels of operating profit margin vary by industry. In some industries, as with agriculture, there has been a downward trend.

## Agriculture income and expenditure per business management entity

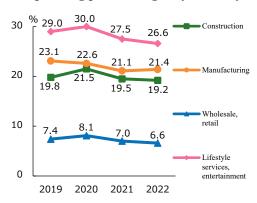


Source: MAFF, "Management Statistics by Type of Agriculture"

Note: "Business management entity" refers to individual management entity

whose main source of income is agriculture and have personnel below
65 years of age engaged in self-employed agriculture for 60 days or
more in a year.

#### Operating profit margin by industry

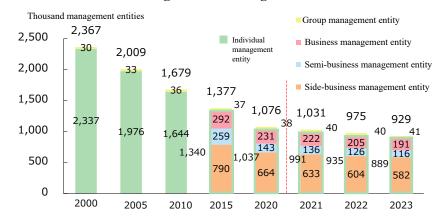


Source: Prepared by MAFF based on the Ministry of Internal Affairs and Communications' "Sole Proprietorship Economic Survey" Note: Operating profit margin per sole proprietorship

# The number of agriculture management entities is on a downward trend, and the average age of core persons mainly engaged in farming increased to 68.7 years old

- The number of agricultural management entities is on a downward trend, and in 2023, it decreased by 4.7% from the previous year to 929,000. Individually managed entities, which account for 95.6% of the total, decreased by 5.0%, while group management entities, which account for 4.4%, increased by 1.5%. The number of agricultural corporations in 2023 increased by 2.5% from the previous year to 33,000.
- The number of core persons mainly engaged in farming has halved in the last 20 years, falling from 2.4 million in 2000 to 1.164 million in 2023. Their population is aging, with 823,000 people aged 65 or older, accounting for about 70% of the total, and the average age is 68.7 years old.
- Since 2000, the number of agriculture management entities in prefectures, classified by farm size, has been decreasing steadily for farms of less than 5 ha, while the number of agriculture management entities of 10 ha or more has increased.

#### Number of agriculture management entities



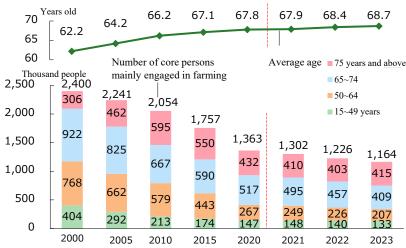
Source: MAFF, "Census of Agriculture and Forestry," "Survey on Movement of Agricultural Structure"

Notes: 1) Figures as of February 1 of each year; figures as of December 1 of the year before for Okinawa Prefecture in 2000 and 2005.

- 2) Figures are the total number of commercial farm households for individual management entity in 2000, and the total number of agricultural holdings other than farm households and agricultural service enterprises for group managed entities. Figures for 2005 and after are the number of agriculture management entities.
- 3) Business management entity: Individually managed entities whose main source of income is agriculture, and have household members below 65 years of age (engaged in self-employed agriculture for 60 days or more in a year).
- Semi-business management entity: Individually managed entities whose main source of income is non-agricultural income, and have household members below 65 years of age (as above).

  Side-business management entity: Individually managed entities without household members below 65 years of age (as above).
- 4) Figures for 2021, 2022, and 2023 are based on the results of the Survey on Movement of Agricultural Structure, and are estimated figures obtained from the sample survey.

#### Number of core persons mainly engaged in farming and their average age



Source: Prepared based on MAFF's " 2000 World Agricultural and Forestry Census," "2005 Agricultural and Forestry Census," "2010 World Agricultural and Forestry Census" (agregate calculation after reclassification), "2015 — Agricultural and Forestry Census" (aggregate calculation after reclassification," "2020 Agricultural and Forestry Census," and "Survey on Movement of Agricultural Structure."

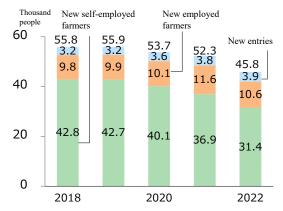
Notes: 1) Figures as of February 1 of each year; figures as of December 1 of the year before for Okinawa Prefecture in 2000 and 2005.

- Figures for the number of core persons mainly engaged in farming and their average age in 2000 and 2005 are figures for the number of commercial farm households.
- 3) Figures for 2021, 2022, and 2023 are based on the results of the Survey on Movement of Agricultural Structure, and are estimated figures obtained from the sample survey.

## The number of newcomers in agriculture fell by 12.3% compared to the previous year. Support is provided to ensure the smooth securing of agricultural workforce for the future

- The number of newcomers in agriculture in 2022 fell by 12.3% compared to the previous year, to 46,000. This attributes to a drop in the number of farmers entering from other industries, due to the impact of recovery in employment that had declined as a result of the COVID-19 pandemic. Looking at the data by the type of involvement in farming, the number of new self-employed farmers was 31,400, making up 70% of the total.
- To smoothly secure the agricultural workforce for the future, support is provided toward initial investment and capital funds before and after starting farming toward establishing a management base as soon as possible.
- The number of graduates from agricultural academies and colleges was 1,735 in FY2022; of these, 53.9% became farmers in the agricultural sector. The employment rate for farmers was 34.1%.
- To communicate the appeal of agriculture to the younger generation, and to nurture human resources who will choose to be employed in the agricultural sector in the future, support is provided not only to strengthen the educational curriculum in areas including smart agriculture and organic agriculture, but also for activities such as visiting classes conducted by leading farmers in the region.

#### Number of newcomers in agriculture

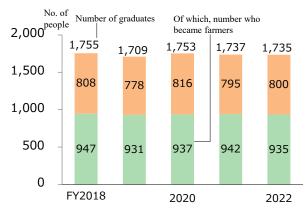


Source: MAFF, "Survey of Newcomers in Agriculture"

Note: Figures of newcomers in agriculture are for February 1

of the year in question to January 31 of the following year.

## Number of graduates from agricultural academies and colleges



Source: Prepared by MAFF

Notes: 1) The number of graduates refers to the number who have graduated from training courses.

2) Those employed in the agricultural sector include not only employed farmers and self-employed farmers, but also those who are undergoing continuous training on farms. It does not include those who started farming after working another job.

#### Case of newcomers in agriculture



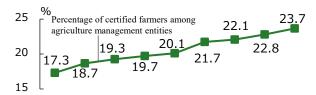
Mr. and Mrs. Hosaka, who moved to Kawaminami Town from outside the prefecture, received training support from the relevant organizations for newcomers in agriculture, and achieved sales of over 10 million yen in the first year of farming with a 20-a scale pepper cultivation (Miyazaki Prefecture).

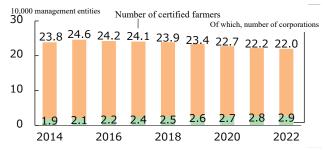
Source: Masataka Hosaka

## Need to nurture and secure the agriculture workforce to enable the sustainable development of Japan's agricultural industry as a growth industry

- It is necessary to nurture and secure an agriculture workforce that aims to realize the efficient and stable management of agriculture, in order to achieve the sustainable development of Japan's agricultural industry as a growth industry.
- The percentage of certified farmers among all agriculture management entities increased by 0.8 percentage points from the previous fiscal year to 23.7% in FY2022.
- The number of community-based farm organizations in 2023 fell by 137 organizations to 14,227 organizations. The number of incorporated community-based farm organizations is increasing year by year.
- It is important to work toward improving business management by farmers. Prefectural governments provide training opportunities to farmers, such as farming management schools where they can learn systematically about management while engaging in farming operations.
- The number of insured persons of farmers' pension has been on the decrease. In the fiscal year 2022, it has decreased by 614 people to 44,576 people compared to the previous year. On the other hand, the number of persons entitled to receive benefits has been on the increase. In the fiscal year 2022, it has rised by 1,861 to 55,376 compared to the previous year.

#### Number of certified farmers





Source: Prepared based on MAFF, "Certification Status of Certified Farmers," "Census of Agriculture and Forestry," and "Survey on Movement of Agricultural Structure."

Note: 1) The number of certified farmers are figures as of the end of each fiscal year.

2) Specified agricultural corporations include corporations deemed as certified farmers.

#### Continuation and strengthening of efforts to improve farmers' incomes

- Organizations in the agricultural cooperative system are implementing self-improvement measures proactively to improve the income of farmers, such as by facilitating the advantageous sale of agricultural products and reducing the prices of production materials.
- The National Federation of Agricultural Cooperative Associations (ZEN-NOH) provides support toward the development of food and agriculture value chains through business partnerships with companies from other industries, through means such as rationalizing logistics, increasing the added value of domestic agricultural and livestock products, and increasing consumption through diverse sales channels.

## Case of increasing income through organizations in the agricultural cooperative system

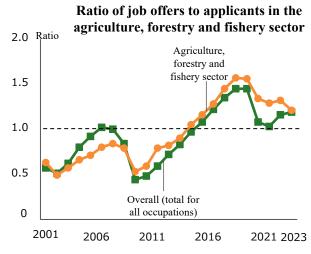


The Kinan Agricultural Co-operatives has increased the agricultural income of its members by strengthening sales of pickled plums and processed plum products, and expanding exports of fresh fruit and vegetables as well as processed products (Wakayama Prefecture).

Source: Kinan Agricultural Co-operatives

#### Importance of securing labor in production sites, including foreign human resources

- The labor shortage remains in the agriculture, forestry, and fishery sector, with the ratio of job offers to applicants exceeding 1.0 since 2014.
- With an increasing number of people leaving the agricultural sector, many of the management entities that take over agricultural land, etc. find it difficult to expand agricultural operations if they cannot secure employed labor. As the issue of continuously securing the necessary employed labor in the agricultural sector will become an issue in the future, it is important to take measures regarding employed labor in the agricultural sector from the perspective of food security.
- In order to resolve the labor shortage in agriculture, MAFF comprehensively supports the establishment of a system for accepting, attracting and retaining, and training human resources from Japan and overseas.
- The total number of foreign human resources in the agricultural sector in 2023 increased by about 8,000 from the previous year to 51,000. MAFF supports the creation of an environment in which foreign human resources can work comfortably.
- In February 2024, the Ministerial Council on Acceptance and Inclusion of Foreign Human Resources decided to progressively dissolve the current technical intern training program in line with the actual situation, and to establish an "Employment for Skill Development" Program with the aim of securing and developing human resources in areas experiencing labor shortages, from the perspective of realizing a society of coexistence where people can live safely and securely, advancing the careers of foreign nationals, and preventing and correcting human rights violations.



Source: Prepared by MAFF based on the Ministry of Health, Labour and Welfare's "Employment Referrals for General Workers" Note: The ratio of job offers to applicants is the figure for full-time workers, including part-timers.

Participants in "91 Nogyo" are diverse individuals who are involved in ways that correspond to their respective lifestyles.

Source: National Federation of Agricultural Cooperative Associations (ZEN-NOH)

#### Case of foreign human resources



Kobo Saien has made use of Specified Skilled Worker System to expand production of spinach and other crops while securing labor. Specified Skilled Worker also participate in community activities and build good relationships (Hiroshima Prefecture).

Source: Kobo Saien

The number of female core persons mainly engaged in farming has decreased compared to the previous year. Management entities in which women are continuously involved in management are large in scale and have made progress in diversifying operations. Promoting an environment where women farmers can work and live comfortably

- The number of female core persons mainly engaged in farming in 2023 was 452,000, down 5.9% from the previous year. They make up about 40% of the total and are important business farmers.
- Management entities in which women are continuously involved in management are large in scale and have made progress in diversifying operations.
- The percentage of female members in agricultural committees in FY2022 increased by 0.2 percentage points from the previous fiscal year to 12.6%. The percentage of female executive officers in agricultural cooperatives in FY2023 increased by 1.0 percentage points from the previous fiscal year to 10.6%.
- According to a survey by the Ministry of Internal Affairs and Communications, in 2021, the total time spent on housework and childcare by female persons engaged in agricultural, forestry, and fishery per day (overall weekly average) was 2 hours and 57 minutes, longer than the 26 minutes spent by men.
- It is essential to create an environment in which men and women can share housework, childcare, nursing care, and agriculture work. MAFF has supported initiatives such as the development of female farmers who can be leaders in their communities, the group activities of local female farmers, and support activities for childcare and farm work in their communities.
- The Nougyou-Joshi Project is marking 10 years since its establishment, and is engaged in diverse activities. While there had been 37 members during its establishment in 2013, membership now exceeds 1,000, and it has grown into a nationwide women's network that transcends regions and generations.

## Status of management entities by the type of female participation in management

	Continued	Started	Stopped	Not participating
Area of operating cultivated land (hectares per management entity)	3.2	2.5	2.5	1.8
Increase/Decrease rate (2015 - 2020)	2.1%	2.7%	0.0%	-0.2%
Sale value of agricultural products (ten thousand yen per management entity)	706	486	581	322
Increase/Decrease rate (2015 - 2020)	14.9%	17.3%	13.9%	14.4%
Percentage of initiatives in agricultural production-related projects	27.1%	22.6%	20.1%	17.1%
Percentage point increase/decrease (2015 - 2020)	1.2	3.2	-0.6	0.7
Percentage of management entities with successors for agricultural management	28.8%	26.9%	24.0%	20.7%

Source: PRIMAFF, "The Turbulent Structure of Japanese Agriculture and Rural Areas - Comprehensive Analysis of the 2020 Census of Agriculture" (published in December 2023)

Note: 1) Management entities with female participation in management in both 2015 and 2020 were categorized as "continued," those with participation only in 2020 as "started," those with participation only in 2015 as "stopped," and those without participation in both years as "not participating."

2) Figures for 2020.

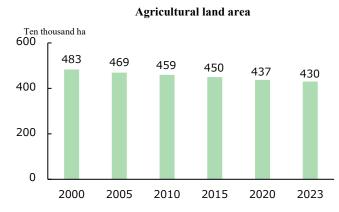
#### Case of women empowerment



Under the leadership of women managers, News Corporations Inc. is implementing organizational design that allows staff to growth and workstyle reform that suits the life plans of every staff member, and promoting the creation of a workplace that is the choice of local women and young people (Ehime Prefecture). Source: News Corporations Inc.

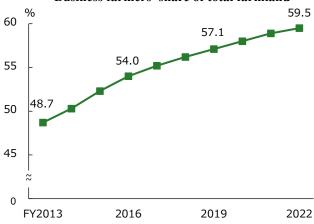
# Agricultural land area has been on a downward trend. Farmland accumulation rate for business farmers increased by 0.6 percentage points from the previous fiscal year

- The agricultural land area in 2023 decreased by 28,000 ha from the previous year to 4.30 million ha. The aggregate planted area of crop also declined, with the 2022 utilization rate of cultivated land at 91.3%.
- As of the end of March 2022 there were 520,000 ha of unregistered inheritance farmland.
- The amount of agricultural land acquired by Japanese corporations in which foreign corporations have voting rights in 2022 was 0.1 ha.
- The total area of agricultural land transferred has remained stable in recent years. In 2021, it decreased by 6.7% compared to the previous year to 299,000 ha.
- Farmland Banks lease farmland dispersed and dislocated within the area and reallocate it to business farmers in a cohesive manner, thereby consolidating and intensifying farmland.
- In FY 2022 farmland accumulation ratio for business farmers rose by 0.6 percentage points from the previous year to 59.5%.
- In cases where farmland banks consolidate dispersed agricultural land for lease, MAFF implements support measures such as infrastructure development that does not impose a cost burden on farmers, offering institutional accumulation cooperation grants for regional efforts to consolidate agricultural land, and reducing fixed property taxes for land providers.



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

#### Business farmers' share of total farmland



# Promoting the consolidation and expansion of farmland parcels, the conversion of paddy fields into upland fields and multipurpose paddy fields, and greater efficiency and sophistication in the maintenance and management of agricultural irrigation facilities

- For agricultural transformation to a Growth Industry, The improvement of the agricultural production base is implemented. As of the end of March 2022, 11.9% of paddy fields had been expanded into large partitions of 50a or more, 47.3% had been upgraded to multipurpose paddy fields, and irrigation facilities had covered 25.2% of upland fields.
- In order to encourage greater food security, converting paddy fields into upland fields and multipurpose paddy fields by improving water drainage, etc., upgrading upland fields by developing irrigation facilities, and improving pastures have been promoted. Efforts are also promoted to improve infrastructure that contributes to the introduction of smart agricultural technologies such as information and communications technology and the consolidation and expansion of farmland parcels, as well as achieving labor-saving, conserving energy, consolidation and reorganization of agricultural irrigation facilities.
- As of the end of March 2022, the number of facilities that have exceeded their standard durable years was 57.5% for core facilities and the extensions was 45.9% for core water channels. Efforts are made to promote greater efficiency and sophistication in the maintenance and management of agricultural irrigation facilities, as well as the extension of their service life.

#### Case of expansion of farmland parcels



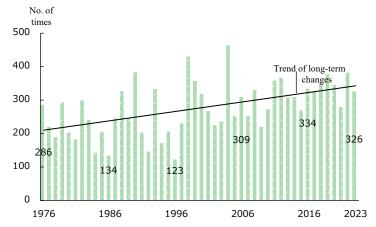
In the Suehiro district of Kazuno City, efforts are made to improve profitability by expanding the production of high-profit crops while also improving infrastructure and introducing smart agriculture (Akita Prefecture).

Source: Akita Prefecture

#### Promoting disaster prevention and mitigation measures to enhance the resilience of agriculture and rural areas

- In recent years, the number of heavy rains with precipitation exceeding 50 mm per hour has been increasing and intensifying flood damage. In addition, the area expected to be affected by a Nankai Trough earthquake includes 30% of the nation's core irrigation facilities.
- In addition to efforts on River Basin Disaster Resilience and Sustainability by All implemented in response to the increasing frequency and intensity of natural disasters, efforts are made to demonstrate the stable functions of agricultural irrigation facilities, and to implement countermeasures to address deteriorated facilities, heavy rains and earthquakes, and disaster prevention and mitigation for agricultural reservoirs.

#### Yearly occurrence of precipitation of 50 mm per hour or more

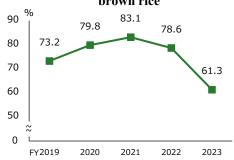


Source: Prepared by MAFF based on materials from the Japan Meteorological Agency

## Promoting the shift to varieties that are tolerant to high temperatures to address the decrease in the ratio of first-grade rice due to the impact of high temperatures, etc.

- The ratio of first-grade rice for the 2023 crop was 61.3%, lower than a typical year, due to the occurrence of white immature grains in Hokuriku and other areas.
- The decline in the yields and income from agricultural products, due to the impact of high temperatures and other factors, is addressed through agricultural mutual relief and revenue insurance for those covered by agricultural insurance. In the case of rice crop mutual relief, when widespread impact is observed due to problems caused by high temperatures, special provisions are applied to NOSAI Niigata (Agricultural Mutual Relief Association of Niigata Prefecture), which conducts damage assessments that take such impact into consideration.
- In addition to encouraging farmers to take up agricultural insurance coverage, support is provided with a view to shifting to cultivation systems that are adapted to high-temperature environments, such as by introducing machinery and conducting demonstrations toward the adoption of cultivation techniques and varieties that are tolerant of high temperatures and suited to the actual situation in the region and the type of crop.

## Percentage of first-grade rice in lowland non-glutinous brown rice



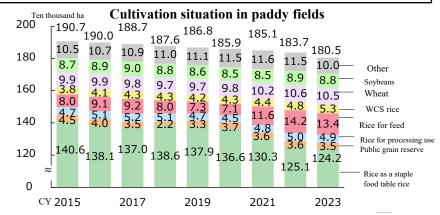
Source: Prepared by MAFF

Note: 1) Figures for each harvest year before the 2022 harvest are the final confirmed values as of the end of October the following year.

Figures for the 2023 harvest are figures as of the end of December of the current year.

#### Realizing crop diversion tailored to demand even in CY 2023 rice production

- To promote production and sale that is tailored to demand, efforts are made to promote stable transactions through prior contracts or multiple-year contracts that are signed between production areas/producers and users, and to share information about inventory and prices.
- In addition to supporting crop diversion, support is provided to producers that are engaged in the low-cost production of rice for new market development, for processing use, and for rice for flour, the establishment of highly profitable crops through farmland conversion, and other efforts in connection with users.
- Grants paid directly for the use of paddy fields is a measure aimed at supporting crop diversion from rice as a staple food table rice, for which demand is falling, to wheat and soybeans, for which there is strong domestic demand. Grant eligibility is based on the premise of using paddy fields with flood mitigation function.
- To expand demand for rice flour, etc., support is provided for new product development and other relevant measures.



Source: Prepared by MAFF

Note: 1) The area of cultivation for rice as a staple food table rice is based on MAFF "Statistics on Cultivated Area and Planted Area"

 "Other" refers to the area of cultivation for rice for flour, rice for new market development, feed and forage crops, buckwheat, and rape seed.

 Areas of cultivation for rice for processing use, rice for feed, WCS rice, rice for flour, and rice for new market development are certified areas in project plans.

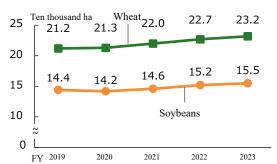
4) Areas of cultivation for wheat, soybeans, feed and forage crops, buckwheat, and rape seed are areas surveyed by the Regional Agricultural Administration Office, etc., through inquiries to the Prefectural Agriculture Revitalization Council, etc. (only for core crops).

5) Areas of cultivation for public grain reserves are areas identified by the Regional Agriculture Revitalization Council.

# Promoting the conversion of upland field crops such as wheat and soybeans, which have growing domestic demand, to primary crops, and strengthening production systems for horticultural crops

- Efforts are being promoted to boost production systems at production areas and enhance the efficiency of production by supporting the development of crop aggregation and introduction of farming technologies.
- To promote the conversion of upland field crops such as wheat and soybeans, which have growing domestic demand, to primary crops, support is provided for initiatives toward converting paddy fields to upland fields and developing production areas for upland field crops.
- > To further strengthen production systems for processed/commercial-use vegetables and promote the switch from imported vegetables to domestic products, support is provided for the introduction of integrated mechanization systems in new horticultural production areas, as well as the development of new production and distribution systems and adoption of crop stabilization techniques.
- To strengthen the production base for high-quality fruits, efforts including the switch to labor-saving orchard system, introduction of tree training systems for saving labor, improving labor productivity through the new planting/replanting of superior crops and varieties, and securing farmers and labor force are made.
- In response to the import suspension of pear and apple pollen from China due to the confirmation of an outbreak and spread of fire blight in China, emergency support is provided through efforts in production areas for the stable production and supply of pollen, switching to domestically produced pollen, etc.
- In the production of sweet potatoes in CY2023, measures were taken to suppress the occurrence of *Diaporthe destruens* (sweet potato foot rot).

#### Area of wheat and soybeans crops



Source: "Crop Statistics" prepared by MAFF

#### Vegetable and fruit production volume



Source: "Food Balance Sheet" prepared by MAFF

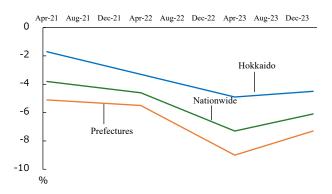


A farmer cultivating citrus fruits \*Photo: MAFF Web magazine "aff," January 2023 issue

#### Supporting efforts to improve dairy farming

- Dairy farming is in a difficult situation due to rising production costs of feed, and other factors.
- MAFF is working to mitigate the impact of persistently high feed prices on producers in dairy farming, such as through compound feed prices stabilization system and financial support.
- Between FY2022 and 2023, producers' associations worked to control raw milk production and increase milk prices, while at the same time promote reducing the inventory of skim milk powder and expanding consumption.
- Partially due to the effects of these initiatives, the number of farming households contracted by designated milk producer organization remained at a high level even as the rate of decline slowed gradually from August 2023.
- ➤ The Council for Developing an Environment for Fair Price Formation in Livestock and Dairy Farming has been established. It conducts reviews on improving the environment to pass production costs onto prices with the understanding and support of the public at all levels, and published an interim report in June 2023.

# Rate of change in the number of farming households contracted by designated milk producer organizations (year-on-year comparison)



Source: Prepared by MAFF based on the Japan Dairy Council's "Number of Contracted Households" (published in March 2024).

#### Promoting efforts to improve the profitability of livestock farming

- Conditions in livestock and dairy farming are severe, with a decrease in farmer numbers as well as an aging farming population, and persistently high feed prices. In addition to addressing these issues, it is important to strengthen the production base in order to expand exports and meet domestic demand for livestock products.
- MAFF provides support for the adoption of machinery and development of the facilities needed to improve the profitability of livestock in the region.
- Since May 2022, in light of the significant drop in the prices of Japanese Black cattle, MAFF supports breeding operations through management stabilization measures and to update the quality of young breeding cows.
- In the face of weakening demand for Wagyu beef due to the rising cost of living, MAFF provided urgent support to develop new demand, expand domestic consumption, promote understanding and stimulate consumption among foreign tourists.
- ➤ To raise the level of animal welfare to the international standards, the Technical Guidelines for Management of Farm Animals, based on the World Organisation for Animal Health (WOAH) Codes, were published in July 2023.

#### Case of labor-saving in cattle production for beef

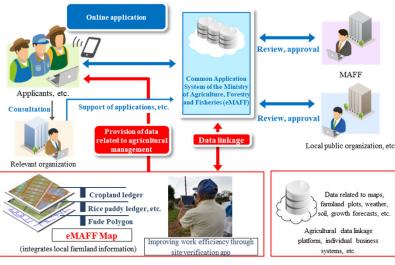


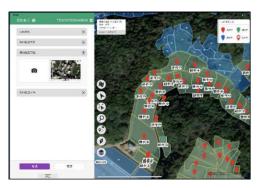
Ie Village is developing a large-scale integrated livestock facility that combines the functions of a calf entrustment facility and a breeding cow entrustment facility, and promoting the reduction of the burden on beef cattle producers (Okinawa Prefecture). Source: Ie Village, Okinawa Prefecture

#### Promoting the acceleration of digital transformation in agriculture

- The Experts' Meeting for the Revision of The Conception and Projects for DX of Agriculture has engaged in discussions on the future direction and progress of digitalization in the agricultural and food-related industries, and compiled "The Conception and Projects for DX of Agriculture 2.0" in February 2024 as a navigator for relevant parties in the agricultural and food-related industries as well as tech companies to realize DX in these industries.
- With regard to the Common Application System of MAFF (eMAFF), more than 3,300 administrative procedures under the jurisdiction of MAFF had been opened to be processed online by the end of FY2022. In addition, MAFF has been making full-fledged efforts, including assistance of municipalities in establishing schemes necessary for online examination of applications and promotion of online application while campaigning to increase awareness of eMAFF among local governments as well as farmers, forestry workers and fishermen.
- ➤ Use of the Common Geographic Information System of MAFF (eMAFF Map) has been promoted for the integration of data essential for agriculture from various systems related to farmland by using digital map technology, in order to radically streamline administrative operations relevant to farmland. The eMAFF Agricultural Land Navigator and the Site Verification App for eMAFF Map came into operation in FY2022.
- In order to make the data held well-managed and easier to use, and to promote data-driven administrative activities, MAFF formulated the Data Management, Data Utilization Basic Policy of MAFF in October 2023 and has been making efforts to expand open data provided and to improve ease of use.

#### eMAFF and eMAFF Map



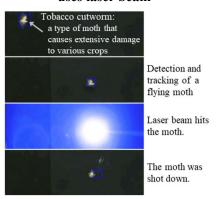


Example of the utilization of the site verification app Source: Prepared by MAFF

#### Promoting innovation creation and technological development

- MAFF provides seamless support-from conceptualization to commercialization, for research and development conducted by start-ups and small- and medium-sized enterprises aiming to commercialize new technologies and services in the agriculture, forestry, fishery and food sectors.
- Goals are set for social issues that are difficult to address but expected to have a major impact if realized, and efforts are made in cooperation with the relevant ministries and agencies to implement challenging "moonshot" research and development projects aimed at achieving those goals.
- "Field for Knowledge Integration and Innovation (FKII) "is a council to promote open innovation in the agriculture, forestry, fishery and food sectors. In the council, to create innovation, efforts are made to promote research and development from the fundamental stages to practical application, and the social implementation and commercialization of the research result.
- The government leads the promotion of the realization of the MIDORI strategy, acceleration of the development of varieties that are suited to smart agricultural technologies, and research and development that takes into consideration the needs of agriculture, forestry and fishery operators.

#### Physical pest control technology that uses laser beam



Source: Prepared by MAFF

#### Promoting the protection and utilization of intellectual property toward expanding exports and improving income and regional vitality. New GI registration for 19 products

- In Japan, the awareness of the value of intellectual property in the agricultural sector and knowledge about the protection and utilization of such intellectual property is inadequate leading to missed profits that could potentially be gained. With a view to shifting to agriculture that also targets at overseas markets, it is important to appropriately protect and utilize intellectual property that is a source of the strengths of Japan's agricultural sector.
- Efforts are made to promote initiatives by breeders' rights management organizations to handle overseas registration applications and licenses on behalf of the holder of a breeder's right, and to provide advice and support in addition to responding to infringements such as by issuing warnings and injunctions.
- Based on Geographical Indication (GI) protection system, 19 products were newly registered for GI in Japan in FY2023, making a total of 145 registered products in Japan to date.

#### Main GI products registered in Japan in FY2023



Arakawa Peach (Wakayama Prefecture)



Gushichan Piman (Okinawa Prefecture)



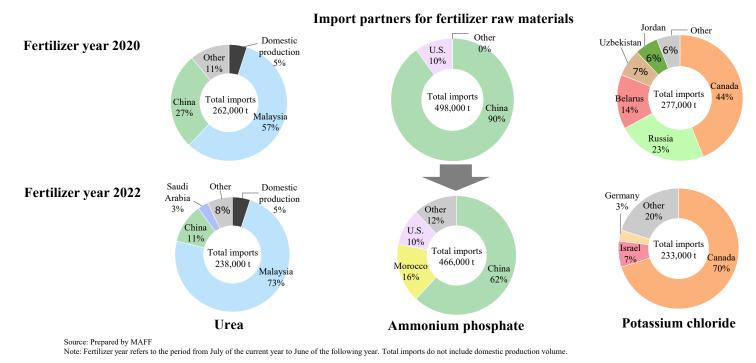
Japanese Aomori Black Garlic (Aomori Prefecture)



Ishiri/Ishiru (fish sauce) (Ishikawa Prefecture)

# Promoting the stable procurement of fertilizer raw materials and the domestic production of fertilizers with a view to shift away from excessive reliance on the import of fertilizer raw materials

The main raw materials used to produce fertilizers are unevenly distributed in specific regions. To shift away from excessive reliance on the import of fertilizer raw materials, the use of fertilizer such as compost and sewage sludge resources for domestic production of fertilizer is promoted. In addition, fertilizer is designated as a specified critical product under the Economic Security Promotion Act, and support is provided for the stockpiling of fertilizer raw materials by businesses working to ensure a stable supply of fertilizer.

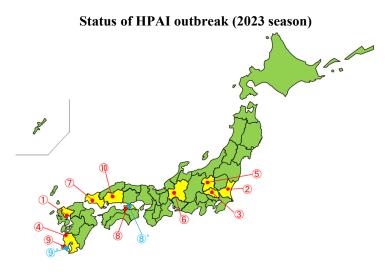


## Responding to persistently high compound feed prices and promoting the expansion of production and use of domestic feed

- The compound feed price stabilization system is a measure to mitigate the effect of compound feed prices increase on livestock farming. New measures were implemented in response to persistently high compound feed prices that have been rising over the long term.
- > To expand the production and use of domestic feed, support is provided in various ways, such as collaboration between cultivation and livestock farming, expanding the scale of feed production organizations, community-wide efforts in hilly and mountainous areas, strengthening the supply capacity of domestic breeds at the National Livestock Breeding Center, building a wide-area distribution system, and improving facilities necessary for increasing feed production.

## Promoting the strengthening of biosecurity to prevent the outbreak and spread of highly pathogenic avian influenza and classical swine fever

- There were 84 cases of highly pathogenic avian influenza in 26 prefectures during the 2022 season, the highest number recorded to date, resulting in the culling of approximately 17.71 million birds. The impact has rippled out to soaring shell egg prices and shortage of supplies.
- In the 2023 season, the outbreak of highly pathogenic avian influenza was confirmed in Saga Prefecture in November 2023. Since then, 10 cases have been confirmed in nine prefectures as of the end of March 2024, and about 793,000 birds have been culled.
- In addition to strengthening measures to prevent the outbreak and spread of such diseases, subdivision of epidemiological unit of farms is also promoted.
- Since a case of classical swine fever (CSF) was confirmed in Japan in 2018 for the first time in 26 years, 90 outbreaks have been confirmed on farms of pigs or wild boars in 20 prefectures as of March 2024. In FY2023, CSF case was confirmed in the Kyushu region for the first time since 2018, which is a major pig farming and production area.
- To prevent the spread of CSF, concerted effort was made by the national government, local government, producers' associations, and farmers to strengthen biosecurity in farms, and to promote vaccinations, capturing and testing wild boars, among other measures.
- Alongside advancing efforts to strengthen border measures to address the heightened risk of introduction and spread of transboundary animal diseases such as African swine fever, measures are taken to develop a quarantine system, such as dealing with carcass management to prevent infection of wild boars. Measures are also taken to prevent the introduction and spread of plant pests.

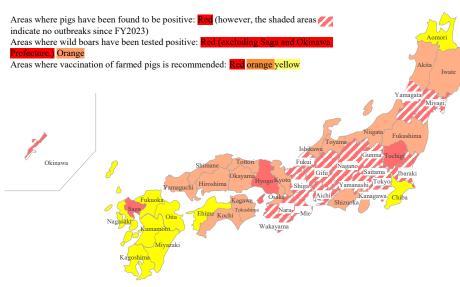


Source: Prepared by MAFF

Notes:1) Status of outbreak as of the end of March 2024.

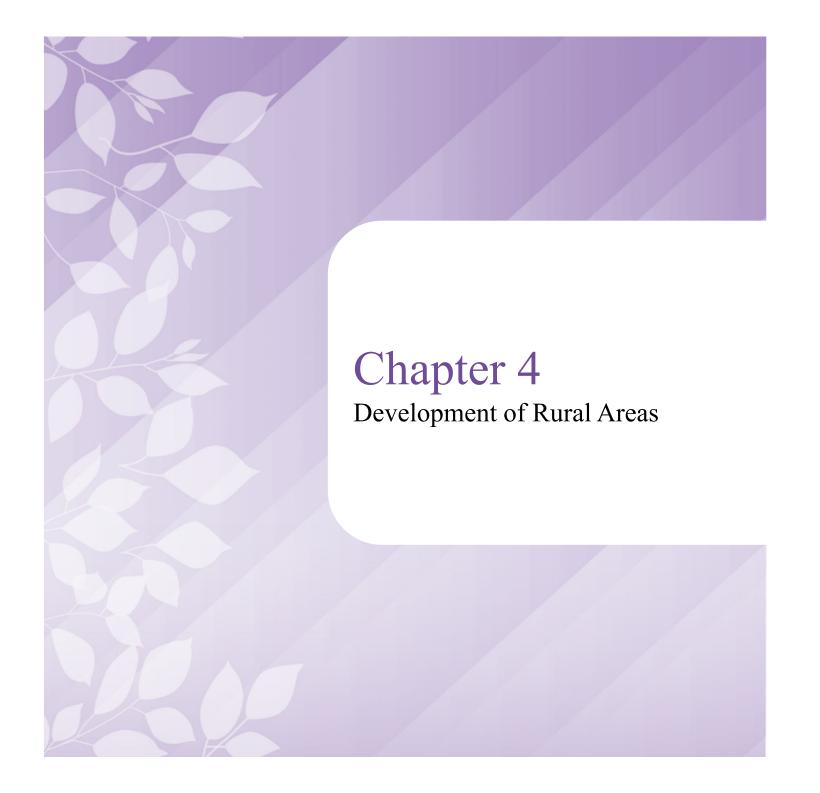
2) The numbers show the order of outbreaks. Red numbers show the number of affected poultry farms (premise/establishment) in the 2023 season. The blue numbers indicate the farms where the poultry was determined to be suspected animals and killed based on the poultry's movement from the affected farms of the red numbers.

#### Status of CSF outbreak



Source: Prepared by MAFF

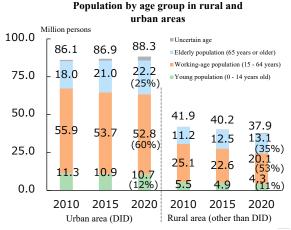
Note: Status of outbreak as of the end of March 2024



## **Chapter 4 Development of Rural Areas**

#### Depopulation and aging are occurring in parallel in rural areas. Rural communities are becoming smaller

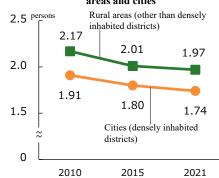
- ➤ Depopulation and aging are occurring in parallel in rural areas. In 2020 city population increased by 1.6% compared to 2015, while rural population decreased by 5.9%.
- The percentage of small rural communities with nine households or less increased by 1.2 percentage points in 2020 compared to 2010, to 7.8%, signaling the size of rural communities becoming smaller.
- The maintenance of rural community functions also has an impact on the conservation of agricultural land in such communities and the continuation of agricultural production activities. Securing the working population and maintaining community functions in rural areas are important issues.
- On the other hand, the average number of children born to couples in rural communities, surpasses the number in cities.



Source: Compiled by MAFF based on the data of MIC, "National Census"

Note: In the census, a densely inhabited district (DID) is defined as a city, and the areas other than DID are defined as rural areas.

## Average number of children born in rural areas and cities



Source: Prepared by MAFF based on the National Institute of Population and Social Security Research, "16th Japanese National Fertility Survey (National Survey on Marriages and Births)"

Note: Average number of children was calculated for couples (both in their first marriages) for whom the wife was 45 - 49 years old at the time of survey.

# Promoting the securing of human resources who can play a key role in supporting rural activities in the future, through measures to promote rural migration by the relevant government ministries

- In recent years, there has been a growing trend in the number of consultations with the certified NPO Furusato Kaiki Support Center (Hometown Return Support Center), which supports consultations on migration for those who wish to live in the countryside or make a "U-I-J turn" toward the rural areas.
- Through measures by the relevant government ministries to promote rural migration, efforts are made to secure human resources who can play a key role in supporting rural activities in the future.
- Support is provided for efforts by regions offering countryside stays, such as the facility renovations and improvements to the environment necessary for accepting guests on "workations."
- > Toward the realization of the Vision for a Digital Garden City Nation, support is provided for efforts to promote the adoption and establishment of digital technologies in hilly and mountainous areas, as well as for the development of information and communications environment.

#### Case of migration promotion



"island company" promotes the charms of everyday life on islands and works to revitalize the region and promote migration to the region (Kagoshima Prefecture).

Source: island company

#### Developing "6th industrialization" initiatives and promoting "innovations from rural areas"

- "Innovations from rural areas" are promoted to develop existing "6th industrialization" initiatives, utilize diverse resources related to agriculture, forestry and fishery and the sectors, and create added value in combination with other sectors. While promoting cooperation among diverse entities such as agriculture, forestry and fishery operators and local businesses, support is also provided in the intangible and tangible aspects, as well as for the dispatch of experts.
- Total sales for businesses related to agricultural production in FY2022, such as processing and direct sales by farmers engaged in the "6th industrialization," increased by 109.9 billion yen compared to the previous year to 2,176.5 billion yen.

## Case of "innovations from rural areas"

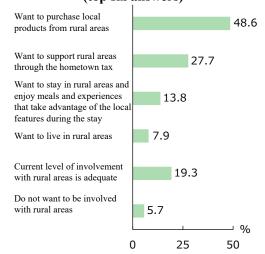


A Zero Group inc. is engaged in a wide range of businesses that increase added value by combining agricultural activities with other sectors, such as cultivating fully ripened strawberries using wood chips generated in the manufacturing processes of wood products, operating tourist farms and cafes, and processing and selling gibier (Okayama Prefecture). Source: A Zero Group inc.

## Promoting efforts to create and expand the population related to rural community and deepen their relationships. "Half-farmer, half-X" approach has been spreading

- Populations related to rural communities are considered to take various formats depending on the degree of interest in rural communities and involvement in rural communities. By following the stages to gradually deepen involvement in rural communities, such populations are expected to transition smoothly to become the new leaders of rural communities.
- According to a public opinion survey conducted between September and October 2023, about 50% of people chose "purchasing local products from rural areas" as a way of engaging with rural areas in the future.
- Efforts are made to promote the "exchange project for children experiencing farming and rural lives," which supports agriculture, forestry and fishery activities and experiential activities with accommodation in rural areas.
- As a measure to increase the number of people practicing half-farmer, half-X approach, the use of the system of the Act on the Promotion of Specific Regional Development in Rapidly Declining Population Areas is promoted in collaboration with relevant ministries and agencies.

# Involvement with rural communities in the future (top six answers)





Sweet potato harvesting experience under the Imohori Owner System Source: Asuka Village Regional Development Corporation

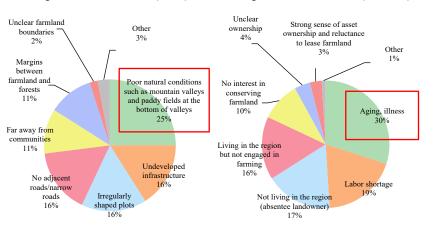
Source: Cabinet Office, "Survey of Public Opinion on the Role of Food, Agriculture, and Rural Areas" (published in February 2024)

#### Dilapidated farmland occurs mainly in farmlands with undeveloped agricultural fields or poor land conditions

- The area of dilapidated farmland has remained at the same level in recent years. In 2022, the area decreased by 6,000 ha compared to the previous year, to 253,000 ha. Among these, 90,000 ha was reusable dilapidated farmland, while 163,000 ha was dilapidated farmland difficult to be reused.
- According to a survey conducted in 2021, the main factor for the occurrence of dilapidated farmland that focused on land conditions was "poor natural conditions such as mountain valleys and paddy fields at the bottom of valleys" (highest percentage of responses at 25%). Among factors that focused on owners, the highest percentage of responses (30%) was for "aging and illness."
- To prevent the occurrence of dilapidated farmland, the efficient and comprehensive use of farmland is promoted through means such as promoting the formulation of regional plans, securing recipients for farmland, and the accumulation and consolidation of farmland using farmland banks. Furthermore, comprehensive efforts are also implemented, such as the maintenance and preservation of farmland through extensive use and support for farming operations through a Japanese agricultural direct payment system.
- To eliminate dilapidated farmland, agricultural committee encourage owners to use the land and widely publicize examples of dilapidated farmland being eliminated.

## Reasons for occurrence of dilapidated farmland (land)

## Reasons for occurrence of dilapidated farmland (owners)



Source: Prepared based on MAFF, "Survey on Measures to Address the Issue of Dilapidated Farmland" Note: Survey conducted on all municipalities in January 2021, with response rate of 96%.

## Implementing a Japanese agricultural direct payment system to maintain and fulfill multifunctional roles of agriculture and rural areas

- Amid the advancing depopulation and aging in rural areas, it is becoming difficult to conduct joint community activities and agricultural production activities. Therefore, there are concerns over fulfilling multifunctional roles of agriculture and rural areas and maintaining peripheral agricultural infrastructure.
- To maintain and fulfill multifunctional roles of agriculture and rural areas, a Japanese agricultural direct payment system has been implemented based on the Act on Promotion of the Multifunctionality of Agriculture, comprising three elements: a multifunctional payment system, a direct payment system to farmers in hilly and mountainous areas, and a direct payment system for environmentally friendly agriculture.

#### Promoting agriculture in hilly and mountainous areas and urban agriculture

- Hilly and mountainous areas perform an important role as spaces for food production. On the other hand, they are placed in difficult circumstances such as unfavorable conditions, for example sloping land, aging population and population decline, and shortage of labor for agriculture. Therefore, there is a need to promote activities to maintain agricultural production activities for the future.
- Mixed farming is promoted to secure income through the combination of diverse types of farming, including the cultivation of crops such as rice, vegetables and fruit trees, livestock farming, and forestry.
- ➤ With regard to Vitalized Hilly and Mountainous Areas by Digitalization, which aims to vitalize regions by using local resources and digital technologies, 55 regions were registered in FY2023.
- Urban agriculture plays an important role in the supply of fresh agricultural products and agricultural experiences, etc. The area of agricultural land in productive green zones in 2022 was 12,000 ha, similar to the previous year.

# Case of mixed farming in hilly and mountainous areas



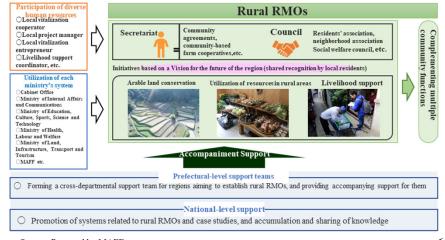
In hilly and mountainous areas amid the rich natural environment of plateaus, mixed farming of grapes and rice is carried out using a reduced amounts of pesticides (Nagano Prefecture).

Source: Wood bell farm Co,.Ltd.

# Promoting formation of Region Management Organization (rural RMO) that complement the functions of communities

- It is important to form rural RMOs (region management organizations), which are organizations that complement the functions of multiple communities and provides livelihood support and other initiatives that contribute to the maintenance of local communities, in conjunction with farmland conservation activities and agricultural economic activities.
- The efforts of organizations aiming to become rural RMOs are supported in the formulation of the future vision related to agricultural land conservation, utilization of local resources, and livelihood support, as well as surveys, planning, and demonstration projects based on such vision.
- ➤ In addition, support is provided toward the establishment of rural RMOs, and the development of prefectural-level support teams comprising local public organizations, agricultural cooperatives, NPOs, etc., as well as a national platform.

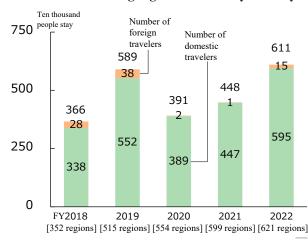
## System to promote the establishment of rural Region Management Organization (RMOs)



#### Supporting the development of various tourism contents that utilize local resources, and promoting countryside stay

- Countryside stay aims to create jobs in these communities, ensure sustainable profits, and generate employment in the area by providing a wide range of tourism contents that utilize local resources unique to rural areas and encouraging longer stays and consumption in the rural communities. It also aims to be a gateway to creating a related population with a view to migrating to and settling in the rural communities.
- The total number of overnight guests in countryside stay regions in FY 2022 was 6.11 million, an increase of 1.63 million compared to the previous year.
- The government's Tourism Nation Promotion Basic Plan sets out a target of total number of overnight guests in countryside-stay regions of 7 million by FY2025.
- In June 2023, the Review Committee for the Approach to Promoting Countryside Stay formulated the Countryside Stay Promotion Action Plan, which sets out the direction for efforts to promote countryside stay with the aim of attracting new visitors, extending the average length of overnight stays per visit, and increasing repeat visitors.

#### Total number of overnight guests in countryside-stay regions



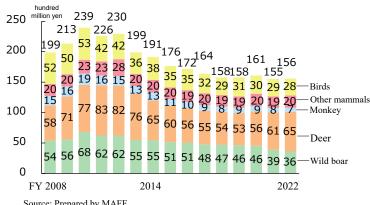
Source: Prepared by MAFF

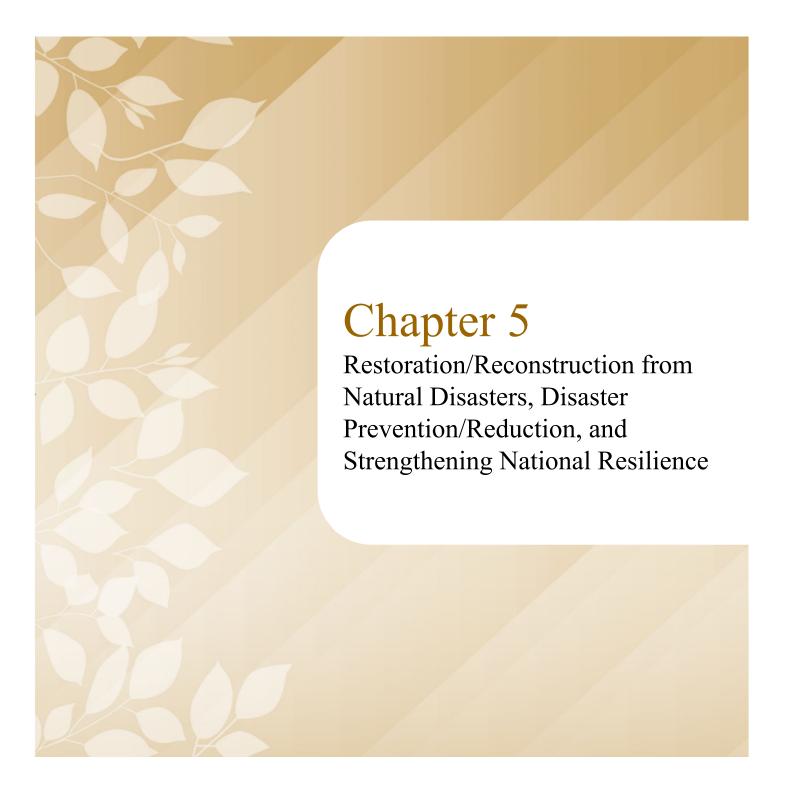
Note: Figures in the brackets [ ] are the number of countryside stay regions selected until the end of each fiscal year.

#### Promoting initiatives such as prevention of wildlife damage and the utilization of gibier

- While the amount of crop damage caused by wildlife such as deer, wild boars, and monkeys has fallen after peaking at 23.9 billion yen in FY2010, the amount of damage increased by 50 million yen to 15.6 billion yen in FY2022 from the previous fiscal year, and the situation remains severe.
- Crop damage from wildlife has a serious impact on rural communities, such as reducing motivation to engage in farming, and causing abandonment of cultivated land and departure from the agriculture sector.
- Support is provided for initiatives such as the promotion of wide-area capture of wildlife under the Act on Special Measures for Prevention of Damage Related to Agriculture, Forestry and Fisheries Caused by Wildlife. In addition, comprehensive support is provided for capture measures to rapidly and significantly reduce deer populations in areas where deer populations are increasing. Efforts are also made to raise awareness of bear haunt and preventing human injury at agricultural sites.
- With regard to gibier, promotion is carried out and training is provided for hunters, among other measures.

#### Filed crop damage caused by wildbirds and mammals





## Chapter 5 Restoration/Reconstruction from Natural Disasters, Disaster

#### Prevention/Reduction and Strengthening National Resilience

## Continued recovery and reconstruction of agricultural land/agricultural facilities from the Great East Japan Earthquake

- Agriculture related damage from the Great East Japan Earthquake was 964.4 billion yen, among 2,443.6 billion yen of damage to agriculture, forestry, and fisheries in total.
- ➤ Of the 19,640 ha of farmland for recovery from the earthquake and tsunami disaster, farming was resumed in 18,870 ha of farmland as of the end of March 2024.
- In the three prefectures of Iwate, Miyagi, and Fukushima, efforts have been made for the expansion of farmland parcels in conjunction with the restoration of farmland from the earthquake and tsunami.

#### Case of post-earthquake reconstruction



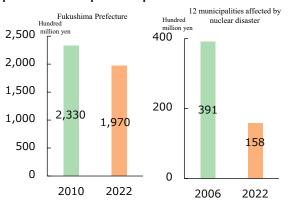
The Hirota Peninsula Agricultural Producers' Cooperative Corporation and the Hirota Peninsula Farmers' Cooperative are engaged in a wide range of farming projects, including compartmentalizing rice paddies into larger plots and realizing mechanization, as well as developing and selling processed products made from local agricultural products (Iwate Prefecture).

Source: Hirota Peninsula Farmers' Cooperative

# There are still issues to be addressed in areas affected by the nuclear disaster, such as restarting farming and dispelling reputational damages

- The total area of farmland for restarting farming in the 12 municipalities affected by the nuclear disaster increased by 645 ha from the previous fiscal year to 8,015 ha at the end of FY 2022. On the other hand, there is a delay in restarting farming in municipalities with difficult-to-return zones.
- In 2022, the total agricultural output of Fukushima Prefecture had recovered to about 80% of pre-earthquake levels, while the agricultural output of the 12 municipalities affected by the nuclear disaster had recovered only to about 40%.
- To restart agricultural operations, securing farmers and matching with farmers, including those from outside the region, is a challenge.
- The percentage of people who are hesitant to buy Fukushima products because of radioactive materials has been on a downward trend and was 4.9% in 2024.
- Establishing comprehensive brand unique to Fukushima, strengthening the competitiveness of production areas, and promoting domestic and international sales are taken.

## Agricultural output of 12 municipalities affected by nuclear power disaster compared with pre-disaster levels



Sources: Compiled based on the data of MAFF, "Statistics of Agricultural Income Produced" and "2022 Agricultural Output by Municipality (Estimation)"

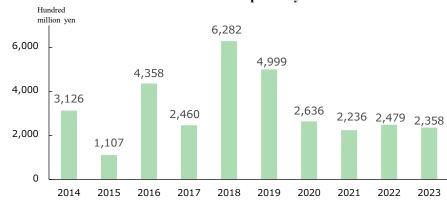


Parliamentary Secretary for Agriculture, Forestry and Fisheries exchanging views with onion producers in Tomioka Town, Fukushima Prefecture

## Damage to agriculture, forestry, and fisheries caused by major natural disasters in 2023 was 235.8 billion yen as of the end of March 2024

- In recent years, large scale natural disasters have occurred in various parts of Japan almost every year. The disaster caused extensive damage to field crops, farmland, and agricultural facilities in our country's agriculture, forestry, and fisheries industries.
- Restoration and reconstruction have been promoted from "the heavy rains in July 2020" and "heavy rains from July to August 2021."
- ➤ In 2023, damage was caused by "heavy rains caused by the 2023 rainy season front and Typhoon No. 2," "heavy rains from June 29, 2023," "heavy rains from July 15, 2023," and "Typhoon No. 7 of 2023," among other disasters. The estimated amount of damage related to agriculture, forestry, and fisheries in 2023 was at 235.8 billion yen as of the end of March 2024.
- The following disasters were designated as disasters of extreme severity: "earthquake disaster on May 5, 2023," "disaster caused by heavy rain and rainstorms between May 28 and July 20, 2023," "disaster caused by rainstorms between August 12 and 17, 2023," and "disaster caused by heavy rain and rainstorms between September 4 and 9, 2023." Such designation reduces the burden on local public organizations and affected farmers, etc. in disaster recovery projects for agricultural land and agricultural facilities, etc.

## The amount of damage caused by natural disasters in agriculture, forestry, and fisheries in the past 10 years



Source: Prepared by MAFF

Note: Damage figures for 2023 are as of the end of March 2024.

#### Case of recovery and reconstruction from natural disasters



Chikuzen Asakura Agricultural Cooperative supports agricultural volunteers in efforts to restart farming operations following damage caused by the heavy rains in northern Kyushu in July 2017 (Fukuoka Prefecture).

Source: Chikuzen Asakura Agricultural Cooperative Association



The Satomi Pear Cider Research Group is using pears that have been affected by hail damage from May 2022, as ingredients for brewed alcohol (Gunma Prefecture). Source: Satomi Pear Cider Research Group

# Promoting measures based on the "Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience"

- ➤ The revised Basic Act for National Resilience was enacted and enforced in June 2023. In July of the same year, a new Fundamental Plan for National Resilience was formulated. The Plan sets out the policy of maximizing the use of digital technology and regional strengths to strengthen national resilience.
- At MAFF, based on the Five Year Acceleration Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience, initiatives have been promoted, such as "River Basin Disaster Resilience and Sustainability by All (improvement of agricultural irrigation facilities, enhancement of the storage function of paddy fields, improvement of seashore)," "disaster prevention and mitigation measures related to important agricultural reservoirs for disaster prevention," "measures against aging agricultural irrigation facilities, heavy rain, and earthquakes," "disaster prevention and mitigation measures for wholesale markets," and "measures for continuing business of horticultural products."

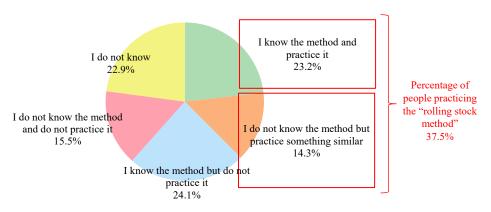


Reservoir embankment before and after elevation construction work Source: Ibaraki Prefecture

#### It is important for each citizen to stockpile food and drinking water regularly in preparation for disasters

- The purchase of agricultural insurance has been promoted to help farmers themselves prepare for damage by natural disasters with focus on horticultural facility mutual relief and revenue insurance. In FY 2022, the horticultural facility mutual relief enrollment rate increased to 73.8% compared to the previous fiscal year. At the same time, development of agricultural BCP (Business Continuity Plan) has been promoted.
- In a survey released in March 2023, about 40% of respondents said that they "do not stockpile food." In addition, the percentage of people practicing the "rolling stock method" was about 40%. Efforts to establish household food stockpiles in preparation for disasters have been promoted.

#### Implementation status of "rolling stock method"



- Unless otherwise noted, this report is based on information available as of the end of March 2024.
- The figures in the tables and charts are rounded off and may not exactly reflect the actual totals.
- The maps in this report do not necessarily indicate Japan's territories comprehensively.