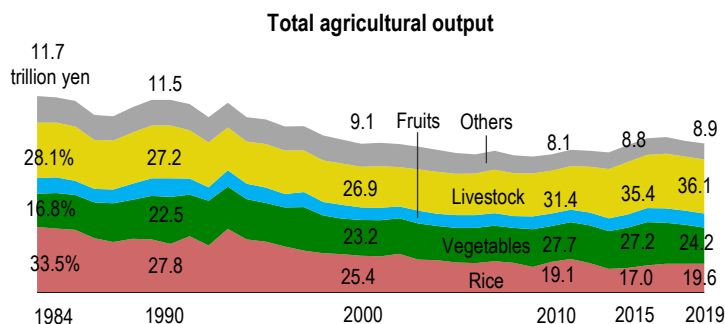


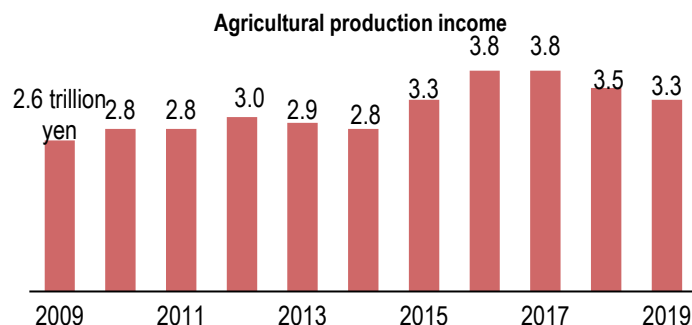
Chapter 2 Sustainable Development of Agriculture

1. Trends of agricultural output, agricultural production income, etc.

- The total agricultural output decreased by 1.8% to 8.9 trillion yen in 2019 from the previous year, mainly due to lower prices for vegetables and hen eggs as production volume increased.
- Agricultural production income in 2019 decreased by 4.8% to 3.3 trillion yen from the previous year, mainly due to the decrease in total output.
- Agricultural gross income per entity remained flat since 2017, and increased by 0.9% in 2019 from the previous year. Agricultural income decreased by 1.7% to 1,941,000 yen due to an increase in agricultural expenditures.



Source: MAFF, "Statistics of Agricultural Income Produced"



Source: MAFF, "Statistics of Agricultural Income Produced"

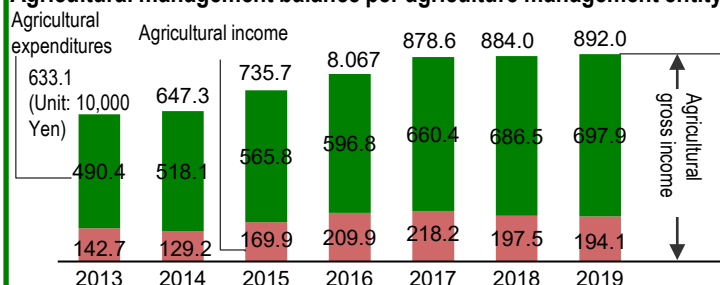
<Case Study> Efforts to improve quality have resulted in higher sales per area (Shizuoka Prefecture)

- Challenged by declining membership and farm area, the Enshu-Yumesaki Japan Agricultural Cooperative's Strawberry Committee still succeeded in increasing sales per area by 53% from 2008 to 2019 through quality improvement efforts.



Strawberry cultivation on elevated benches
Source: Enshu-Yumesaki Japan Agricultural Cooperative

Agricultural management balance per agriculture management entity



Source: MAFF, "Report of Statistical Survey on Farm Management: Management Income and Expenditure of Agriculture Management Entities in 2019"(Estimated) (Released in February 2021)

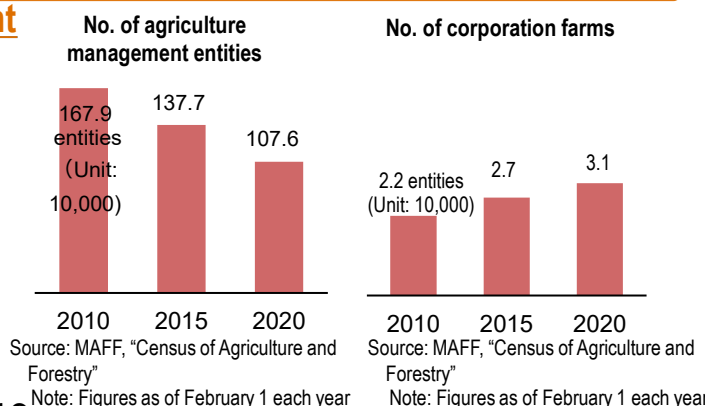
Notes: 1) The figures for 2013-2018 are estimated from the aggregated results of the Report of Statistical Survey on Farm Management, the Statistics on Management by Type of Management (individual management) and Report of Statistical Survey on Farm Management, the Statistics on Management by Type of Management (management of corporate organization). 2) Figures for 2019 are based on data from the Statistic on Management by Farming Type (all types of farms) and are estimated using the same criteria as in 1) (former criteria).

2. Development and securing of business farmers for realizing a strong and sustainable agricultural structure



Encouragement of management development through the certified farmers system, incorporation, etc.

- The number of agriculture management entities in 2020 decreased by 22% to 1.076 million from five years ago.
- Of the total number of agriculture management entities, the number of corporation entities increased by 13% to 31,000 compared to five years ago. There has been a steady increase in the number of corporation entities.



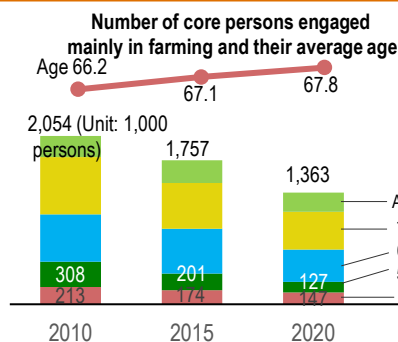
Source: MAFF, "Census of Agriculture and Forestry"

Note: Figures as of February 1 each year

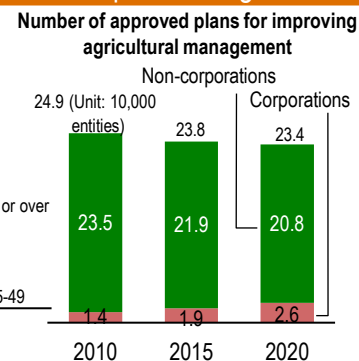
Source: MAFF, "Census of Agriculture and Forestry"

Note: Figures as of February 1 each year

- In 2020, the average age of core persons engaged mainly in farming was 67.8 and the number of persons engaged was 1,360,000. This showed an age increase of about 2 years from 66.2 years 10 years ago and a 34% decrease in the number of core persons.



Source: MAFF, "Census of Agriculture and Forestry 2020," "Census of Agriculture and Forestry 2015" (reclassified), and "Census of Agriculture and Forestry 2010" (reclassified).
Note: Figures as of February 1 each year

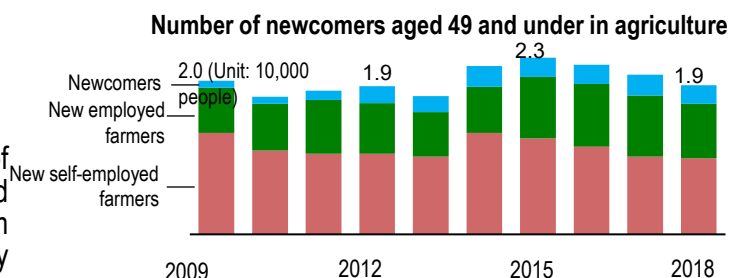


Source: MAFF, "Status of Approval of Plans for Improving Agricultural Management"
Note: Figures as of the end of March each year

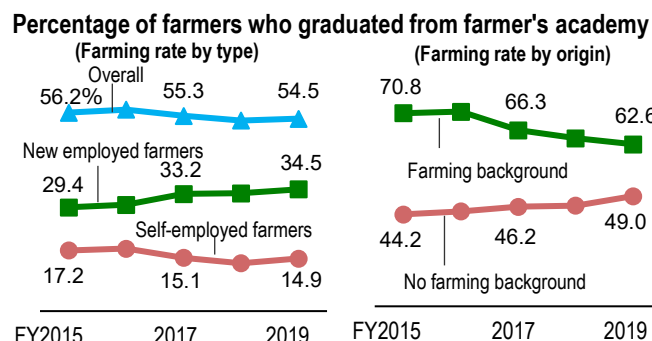
- Compared to 10 years ago, the number of those aged 49 and under has decreased by 31%, whereas the number aged 59 and under decreased by 47%.
- The number of certified plans for improving agricultural management in 2020 was 230,000 farms. Of these, the number of corporation farms has been consistently increasing. There were also cases that were approved across prefectural boundaries.

Taking over farm management, recruiting newcomers; training and securing human resources, etc.

- Due to the aging of and decreasing number of farmers, the Ministry of Agriculture, Forestry and Fisheries promoted the steady succession of farm management and the smooth transfer of assets by business farmers through consultation with experts and special tax incentives.
- The number of newcomers aged 49 and under has remained at around 20,000 in recent years, with 19,000 reported in 2018.
- Ninety-five percent of newcomers continued to engage in farming at the end of the following year (those eligible for the preparatory type of next generation agricultural human resources investment business.)
- Out of the farmer's academy graduates in 2019, 55% became employed farmers. The percentage of new employed farmers is on the rise. The rate of farming among students without a farming background was also increasing.



Source: MAFF, "Survey Result of Newcomers in Agriculture"
Note: As of February 1 each year



Source: Prepared by MAFF based on data by the National Council of Farmer's Academy
Note: "Farmers" does not include those who started farming after working at other jobs.

<Case Study> High School of Agriculture & Forestry supports GAP certification efforts (Gifu Prefecture)

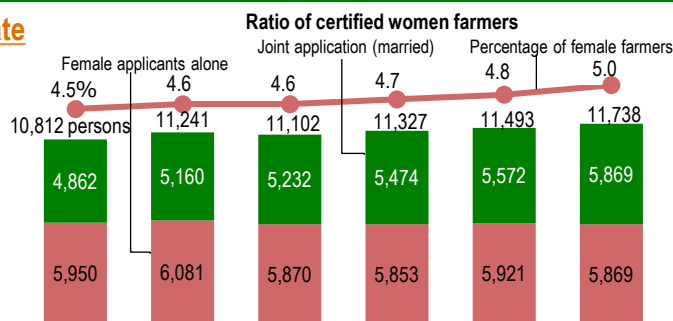
- Gifu Senior High School Of Agriculture & Forestry has obtained GLOBALG.A.P. and JGAP certification. The school shares know-how and supports local farmers in obtaining GAP certification.
- These efforts were highly evaluated and awarded the Grand Prix of "Discover Rural Treasures" in 2020



Students of Distribution Science,
Gifu Senior High School Of Agriculture & Forestry

Creating an environment in which women can demonstrate their abilities

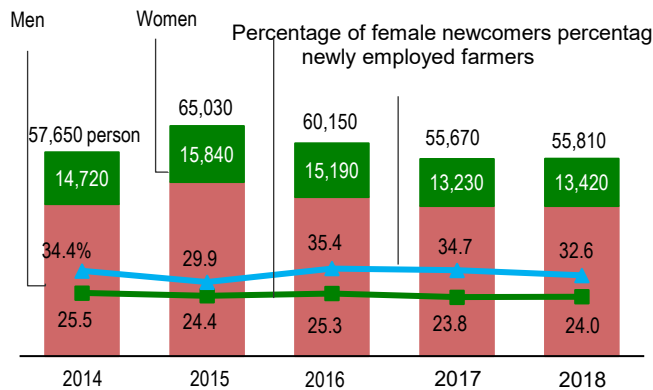
- The number of certified female farmers in 2020 increased by 8.6% to 11,738 from five years ago, and the ratio of women to the total number of certified farmers increased by 0.5 percentage points to 5.0%.
- Female newcomers numbered 13,420 in 2018, accounting for 24% of all newcomers. Female new employed farmers numbered 33% of the total, accounting for a high percentage of new employed farmers



Source: Prepared by MAFF, based on "Approval Status of Plan for Improving Agricultural Management by Agriculture Type"
Note: Figures as of the end of March each year

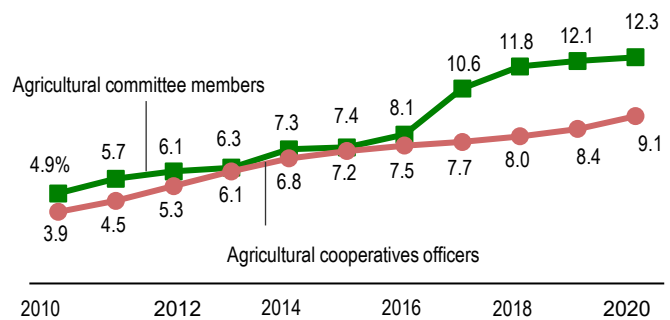
- Women accounted for 12.3 % and 9.1 % of agricultural committee members and agricultural cooperative directors, respectively, in 2020. Compared to 10 years ago, women's share increased by 7.4 points among agricultural committee members and by 5.2 points among agricultural cooperative directors.
- The "Study Group for the Promotion of Women's Active Participation in Agriculture" was held. The Ministry of Agriculture, Forestry and Fisheries in December 2020 summarized recommendations on the need for awareness-raising in rural areas and concrete measures such as women's participation in the formulation of local agricultural policies.

Number of female newcomers and percentage of female farmers



Source: Prepared by MAFF based on "Survey Result of Newcomers in Agriculture"

Ratio of women to total agricultural committee members and agricultural cooperative directors



Source: Prepared by MAFF based on "Status of Women's Participation in Agricultural Committees" and "Statistics on Agricultural Cooperatives"

Notes: 1) Agricultural committee members: As of October 1 each year

2) Agricultural cooperative directors: End of each fiscal year

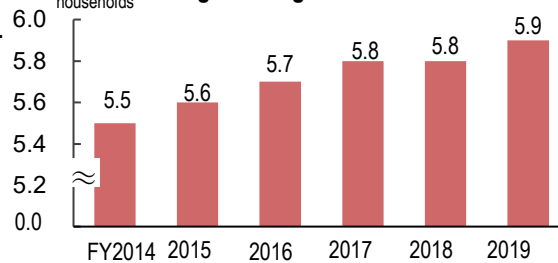
3) The figures for FY2020 are based on data from the Central Union of Agricultural Cooperatives (Zenchu).

3. Active participation of diverse human resources and entities that support agricultural sites



- It is important to promote the activities of diverse human resources and players, such as SMEs and family businesses, in order to secure local agricultural production and make it sustainable.
- Individual farmers (households) account for the majority of farmers in Japan. One of the tools for realizing a work-life balance is a family management agreement that stipulates the division of work and household chores. 59,000 farmers have signed the agreement, accounting for 26% of main business operators.
- "Support for the establishment of new ways of working in agriculture" is provided to local production areas working to reform agricultural work styles and reduce labor shortages.

Number of farms signing family management agreements



Source: MAFF, "Survey on Family Management Agreements"

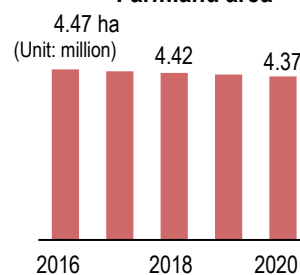
Note: Figures as of the end of each fiscal year

4. Integration and consolidation of farmland and securing business farmers



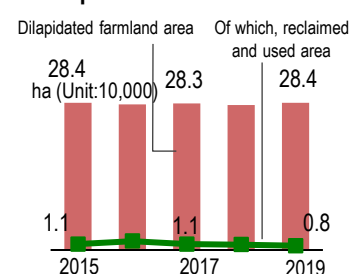
- The area of farmland in 2020 is 4.37 million ha, down 25,000 ha from the previous year. The area of dilapidated farmland in 2019 was 284,000 ha, the same level as the previous year, of which 8,000 ha was reclaimed and used.

Farmland area



Source: Prepared by MAFF based on "Statistics on Cultivated Land and Planted Area"

Dilapidated farmland area

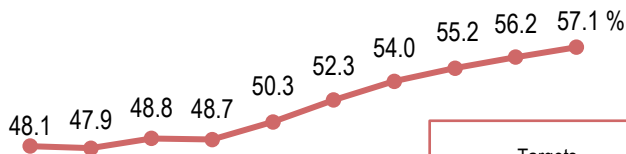


Source: Prepared by MAFF based on "Survey on the Occurrence and Resolution of Dilapidated Farmland"

- The area of cultivated land under management per agricultural management entity in 2020 was 3.1 ha, up 20% from 5 years ago.
- As a result of the Farmland Bank initiative launched in 2014, business farmers' share of total farmland rose each business farmers' share of total farmland year, reaching 57% at the end of FY2019.
- To achieve the 80% target of the business farmers' share of total farmland by the end of FY2023, "the Farmers and Farmland Plans" is promoted for realization based on the revised Farmland Banks Act.

In FY2019, the Farmers and Farmland Plans are already realized in 18,826 districts, and 48,790 districts are working on realization.

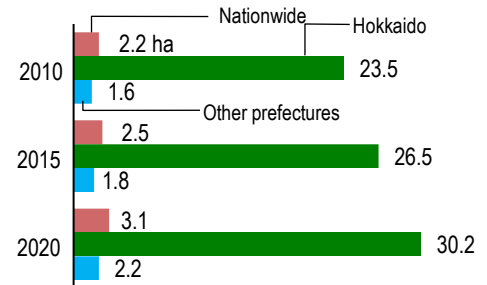
Business farmers' share of total farmland



Source: Prepared by MAFF

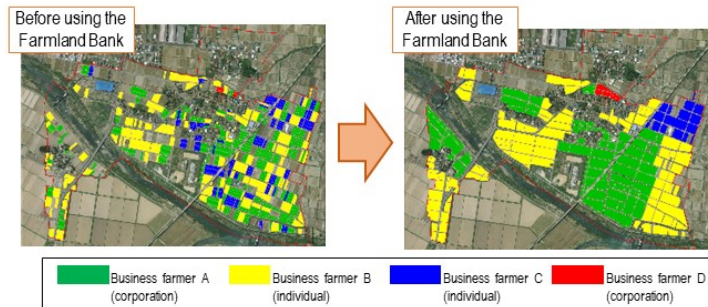
Note: This includes those by entities other than the Farmland Bank

Cultivated land under management per entity



Source: Prepared by MAFF based on "Census of Agriculture and Forestry"

Case Study: Solving the problem of dispersion of plots



Source: Prepared by MAFF

Note: Case study of the Hiroshima District, Myoko City, Niigata Prefecture

5. Promotion of initiatives towards stabilization of agricultural management

- The number of agriculture management entities that signed up for the revenue insurance system, which compensates for income loss caused by not only natural disasters but also various risks, increased by 13,000 to 36,142 in 2020. The percentage of entities filing the blue form tax returns is 10%.
- From 2020, a new type will be created that offers an up to 40% discount in insurance premiums when the lower limit of compensation is selected.
- Despite a decrease in income in 2020 due to COVID-19, the government has established a special exception that will not affect the base income for the following year.
- The number of applications for Farming Income Stabilization Measures in FY2020 decreased by 1,000 cases to 42,000 cases for direct payment for upland field crops from the previous year. Payment to mitigate the impact of reduced income for rice and upland field crops decreased by 10,000 cases to 78,000 cases from the previous year.

<Overview of the revenue insurance system>

- The insurance premium rate is about 1%, and 90% of the amount below the base income will be covered when income falls below 90% of the base
- This insurance covers all agricultural products in principle, and covers not only natural disasters but also a wide range of risks in agricultural management such as declining prices

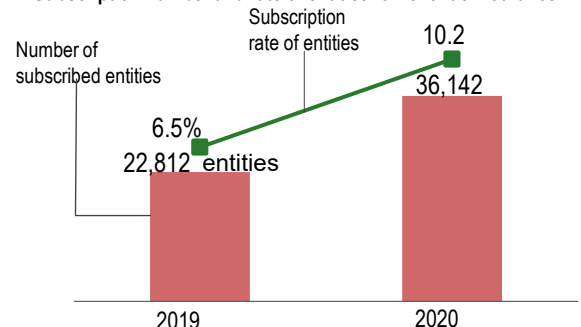
<Example risks covered by revenue insurance system>



* If 70% of the base income is selected as the lower limit of coverage, premiums are discounted by 40%.

Source: Prepared by MAFF

Subscription number and rate of entities for revenue insurance



Source: Prepared by MAFF

Note: Subscription rates are based on the percentage of farmers who file the blue form tax returns (353,000 farmers (excluding cash basis)) in the 2020 Census of Agriculture and Forestry (approximate figures)

6. Development of agricultural production infrastructure that contributes to the transformation of agriculture into a growth industry and strengthening national resilience



Formulation of a new Long-term Plan of Land Improvement

- The government formulated a new Long-Term Plan of Land Improvement for the period from FY2021 to FY2025 in March 2021.
- Policy issues include: "Towards the transformation of agriculture to a growth industry by strengthening agricultural production infrastructure," "Promotion of rural areas where diverse people can continue to live," and "Strengthening the resilience of agriculture and rural areas." In addition to these, the government has newly established the following KPIs: (1) Acceleration of smart agriculture implementation, (2) Intensive and systematic promotion of disaster prevention measures for critical reservoirs for disaster prevention, and (3) Promotion of River Basin Disaster Resilience and Sustainability by All.

Development of agricultural production infrastructure for developing agriculture industry to a growth sector

- In 2019, 11% of rice paddies had been consolidated into large partitions of about 50a or more, and 46% of paddy fields were upgraded to multipurposed paddy fields by installing culvert drainage, etc. Irrigation facilities had covered 24% of upland fields.
- Efforts to improve agricultural production infrastructure have been promoted to enable the implementation of smart agriculture, which utilizes automated agricultural machinery, ICT water management, etc.

Strategic conservation and management of agricultural irrigation facilities

- Developed agricultural irrigation facilities include core channels totaling 51,454 km and 7,632 core facilities including dams and diversion weirs.
- Systematic and efficient repairs, updates, etc., are implemented to extend the lives of facilities and reduce life cycle costs.

Disaster prevention and reduction measures to strengthen the resilience of agriculture and rural areas

- Based on the Fundamental Plan for National Resilience, the government promotes tangible measures, such as enhancing structural longevity of agricultural irrigation facilities, etc. and intangible measures, such as creation of hazard maps, etc.
- The Act on Special Measures for Construction of Reservoirs came into effect in October 2020. The purpose of this Act is to provide necessary financial measures and enhanced local financial measures for the promotion of disaster prevention on critical reservoirs for disaster prevention by the national government in response to the promotion plans of prefectures.
- Efforts for River Basin Disaster Resilience and Sustainability by All are promoted through "releasing water in advance" of agricultural dams, "rice paddy dams" using rice paddies, and utilization of reservoirs and agricultural drainage facilities in order to properly exercise the flood control functions of farmland and agricultural irrigation facilities.

Repairs of core channels



Inspection and diagnosis



Repaired channel

Source: Prepared by MAFF

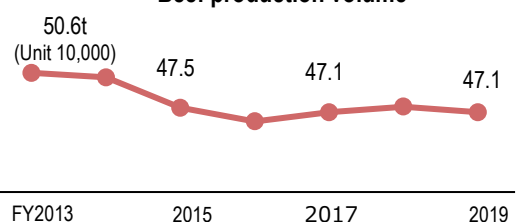
7. Strengthening of the production bases compatible with changes in the demand structure, etc., and streamlining of distribution/processing structures



Livestock products

- While the number of households raising livestock decreased for each livestock category, the number of animals raised per household increased.
- Beef production volume for FY2019 decreased by 1.1% from the previous year due to castration of dairy cattle and a decrease in crossbreds.

Beef production volume



Source: MAFF, "Food Balance Sheet"
Note: FY2019 figures are estimates

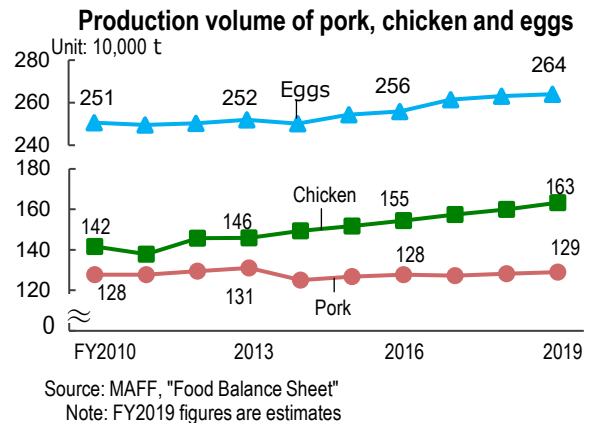
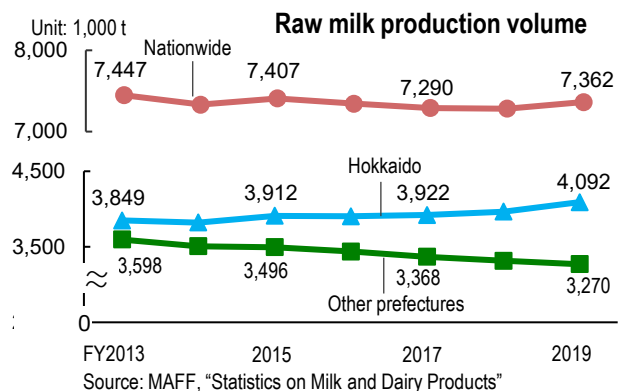
- Raw milk production volume continued to decrease in prefectures, while Hokkaido continued to increase, resulting in the first nationwide increase in four years.
- To respond to the growing domestic demand for dairy products and beef and expand exports, various measures are promoted, such as strengthening the production base by awarding financial incentives to cattle farmers for increasing their stock of dairy and beef cows.
- Pork production volume increased by 0.6% to 1.29 million tons in FY2019 from the previous year. Poultry meat production volume increased by 2.1% to 1.63 million tons. Hen eggs increased by 0.4% to 2.64 million tons from the previous year.

Vegetables

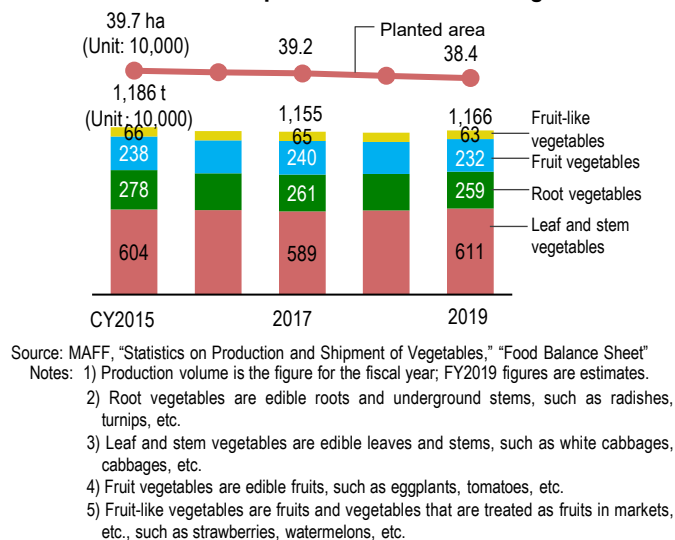
- Compared to the previous year (CY), which had poor growth due to adverse weather conditions, the production volume of vegetables in 2019 (CY) increased by 1.7%.
- Demand for processing and commercial uses accounted for 60% of the total. Domestic distribution volume of frozen vegetables is increasing, with more than 90% imported.
- To further strengthen the production system to meet these new demands, various measures are promoted in collaboration with multiple production areas, such as the development of production base operators who will provide a stable supply to buyers and creation of new production areas utilizing paddy fields, and the introduction of an integrated mechanization system to increase productivity.

Fruits

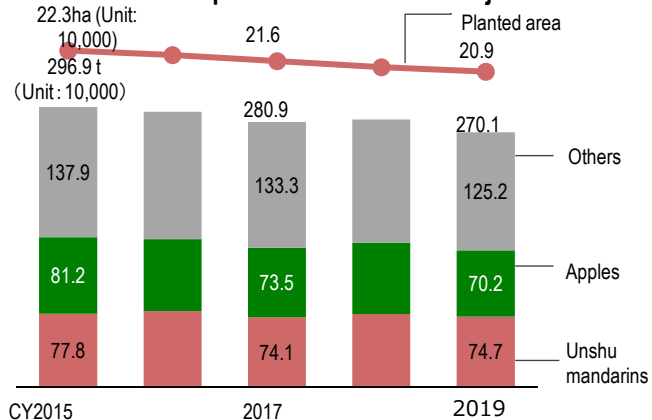
- Fruit production in CY2019 decreased by 4.9% from the previous year, which was affected by adverse weather conditions.
- Amid the weakening production base, efforts for drastic improvement of labor productivity, development and diffusion of new technologies and varieties, etc. are promoted in order to restore the declining supply and strengthen the production base.
- Expansion of the supply of high value-added fruits and processed fruits that meet the variety and sophistication of consumer needs, expansion of exports, and a shift to more efficient, labor-saving fruit distribution, etc. are promoted.



Planted area and production volume of vegetables



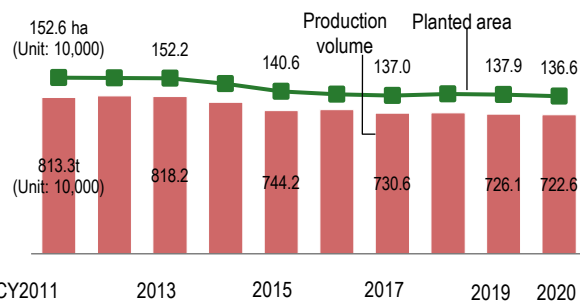
Planted area and production volume of major fruit trees



Rice

- Given the year by year decline in table rice consumption, the government abolished administrative allocation of production volume targets from CY2018, switched to a policy of leading production areas and producers to produce and sell rice in line with demand
- On the other hand, the production volume for CY2020 crop decreased by 0.5% to 7.23 million tons from the previous year crop due to the limited progress of reducing planted areas to meet decreased demand. In addition, the impact of COVID-19 has further reduced demand, resulting in high inventory levels
- To ensure the stability of supply, demand and price of rice, 67,000 hectares of planted area of table rice needs to be converted for CY2021 crop, the largest scale ever in Japan. All stakeholders have worked together to develop new markets including exports, and have promoted production and sales in response to demand by converting to highly profitable crops such as wheat, barley, soybeans, vegetables for processing and business use, rice for processing, rice for rice flour, rice for feed.
- Exports quantity of rice for commercial use has increased about 2.6 times over the last five years. Development of overseas demand by exporters and linking between exporters and production areas, etc. will continue to be promoted
- The demand for rice for rice flour increased by 16% in FY2019 due to the operation of the third party certification system for non-gluten rice flour products, etc.
- Planted area of rice for feed in CY2019 decreased by 7,000 ha to 73,000 ha from the previous CY. Production volume decreased by 8.9% to 390,000 tons.

Planted area and production volume of staple food rice

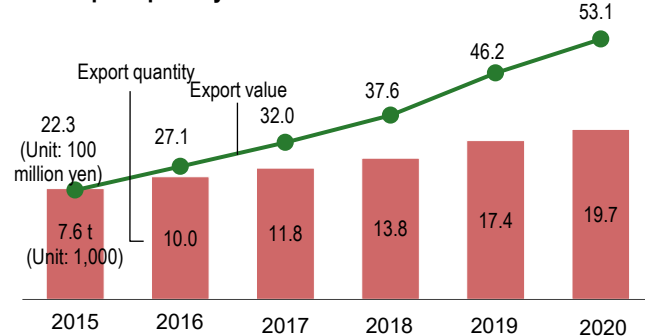


Source: MAFF, "Statistics on Crops," "Statistics on Cultivated Land and Planted Area"

Note: 1) Production volume is the yield in "Statistics on Crops"

2) CY is crop year.

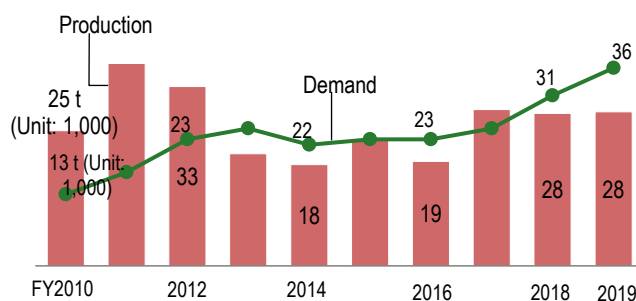
Export quantity and value of rice for commercial use



Source: Prepared by MAFF based on Trade Statistics by MOF

Note: The government's rice food aid is excluded.

Production and demand of rice for rice flour

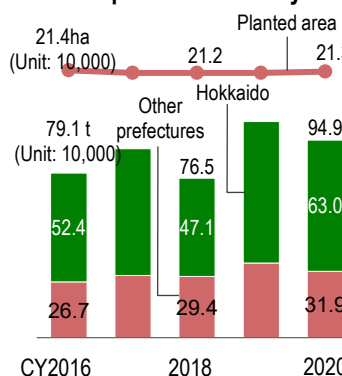


Source: Prepared by MAFF

Wheat/Soybeans

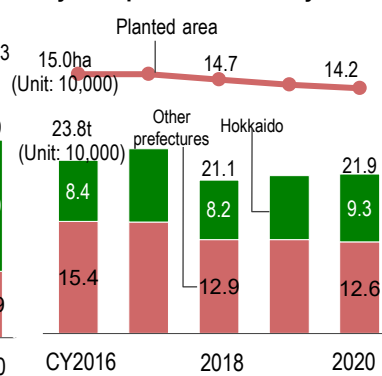
- The yield of wheat produced in CY2020 was above average, due to favorable weather conditions, good growth and good crop maturity. However, it was still below the previous CY, which had a particularly good crop.
- The yield of soybeans in CY2020 increased by 1% from the previous CY.
- To further increase the demand for domestic wheat and soybeans, it is necessary to achieve the quantity, quality and price stability demanded by consumers. By introducing farming technologies such as continuous cover and integrated cultivation and drainage measures, the government is promoting improvements in productivity and stability in production areas, as well as development of storage systems in these areas to cope with fluctuations in crop yields.

Wheat planted area and yield



Source: MAFF, "Statistics on Crops"

Soybean planted area and yield

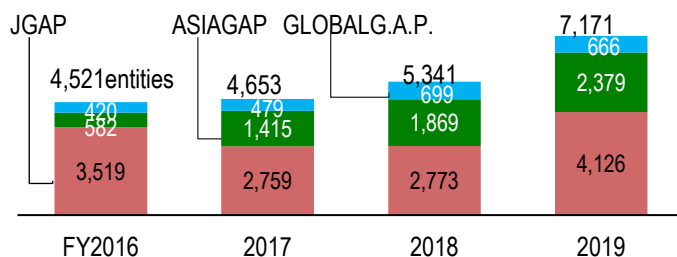


Source: MAFF, "Statistics on Crops"

Promotion of Good Agricultural Practices (GAP)

- Implementing GAP contribute to ensuring sustainability, improving farm management, and ensuring trust by consumers.
- As of the end of FY2019, 7,171 entities obtained GLOBALG.A.P., ASIAGAP, or JGAP certification for agricultural products. For livestock products, 217 entities were certified as of March 2021.

Number of GAP-certified entities (agricultural products)



Source: Prepared by MAFF based on data published by GAP Extension Organization Inc. and Japan GAP Foundation

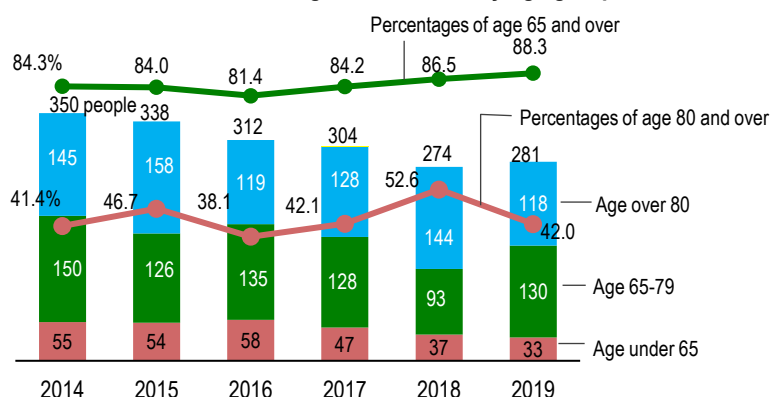
Notes: 1) Figures as of the end of each fiscal year (However, figures for GLOBALG.A.P. FY2016 are as of April 2017, and figures FY2017 are as of December 2017)

2) The total figure for each fiscal year is the sum of the figures for JGAP, ASIAGAP, and GLOBALG.A.P.

Promoting farming safety measures

- In 2019, 281 people were killed in accidents during agricultural work, up 7 from the previous year. Of the total, 88% were age 65 and over, and 42% were age 80 and over, indicating a high percentage of elderly people.
- Efforts are promoted with the aim of halving the number of fatal accidents related to agricultural machinery work, which is the main cause of farming accidents, from the 2017 level (211 people) by 2022.

Number of deaths in agricultural work by age group



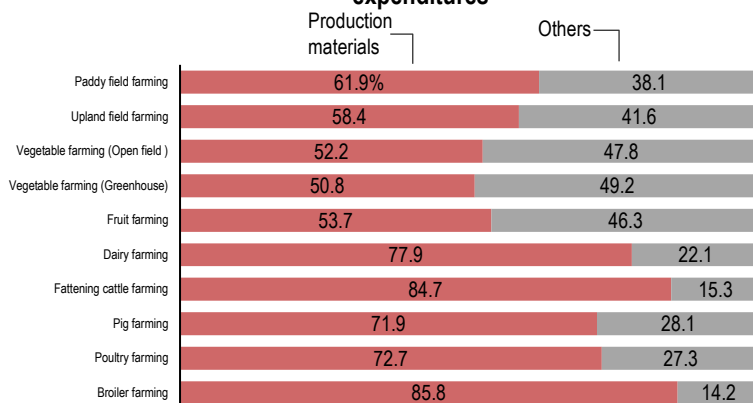
Source: MAFF, "Survey of fatal accidents in agricultural work"

Note: 2017 data includes one death of unknown age

Supply of high-quality and low-cost agricultural materials

- Agricultural material costs account for a certain share of agricultural expenditures which need to be reduced to improve agricultural income.
- For this purpose, supplies of high quality, low cost agricultural materials are promoted through business restructuring and business entry of agricultural material companies under the Act on the Support for Strengthening Agricultural Competitiveness. Also, to reduce the cost of agricultural materials, new agricultural support services are fostered and disseminated, enabling individual farmers to receive the provision of advanced work without having to own agricultural machinery.

Percentages of production materials in agricultural expenditures



Source: MAFF, "Report of Statistical Survey on Farm Management: Management Income and Expenditure of Agriculture Management Entities in 2019 (Estimated) (released in February 2021)"

Note: Production materials include seed and seedling cost, feeder livestock cost, fertilizers and manures cost, feed cost, pesticide and sanitation cost, various materials cost, power and utility cost, agricultural implements cost, working clothes cost, repair cost, and depreciation cost.

8. Promotion of innovations at agricultural production/distribution sites by utilizing information and communication technologies, etc.

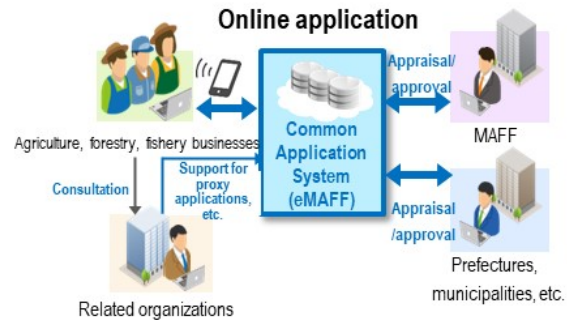


Promotion of smart agriculture

- Demonstration of smart agriculture is undertaken. Also, programs such as disease image judgment are implemented to improve the functions of the Agricultural Data Collaboration Platform (WAGRI), enabling various agriculture-related data to be linked and utilized.
- In February 2021, the government developed guidelines for the development of a system (open API) to facilitate the use of data such as work records obtained from agricultural machinery by farmers.

Promotion of digital technologies in the development of agricultural policies

- The "Common Application System of MAFF (eMAFF)" has been established to allow online application for administrative procedures under the jurisdiction of MAFF. In April 2020, the government started receiving applications for some administrative procedures such as the certified farmers system. The goal is to have all administrative procedures online by FY2022.
- Report on the "Agriculture DX Concept" in March 2021.



Source: Prepared by MAFF

Creation of innovation and promotion of technological development

- Aiming to develop the agriculture, forestry, fisheries, and food industries into a growth sector, "Field for Knowledge Integration and Innovation" was established in 2016 as an initiative to create innovation by utilizing knowledge, technology, and ideas from various fields.
- As of the end of March 2021, 3,918 companies, universities, research institutes, etc. have participated in the initiative, sharing issues for productization and commercialization, drafting research strategies/business plans, and conducting research activities in the research consortium.

Achievements resulting from "Field for Knowledge Integration and Innovation"

Wellnas Co., Ltd., a Shinshu University venture company, has developed a dietary supplement containing eggplant-derived choline ester as a functional substance



Source: Presented by Wellnas Co., Ltd.

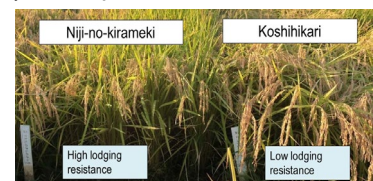
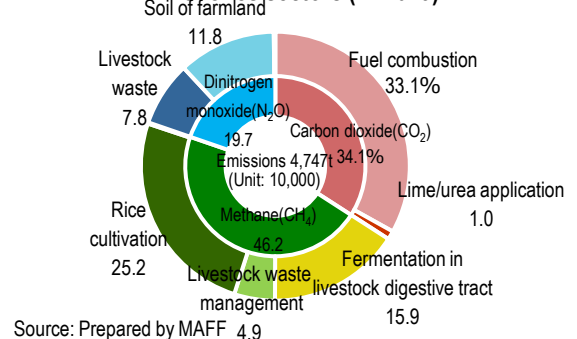
9. Promotion of environmental policy such as responses to climate change



Promotion of mitigative and adaptative measures against climate change

- Japan's agriculture, forestry, and fisheries sectors produced 47.47 million tons (carbon dioxide equivalent) of greenhouse gases in FY2019, accounting for 3.9% of total emissions.
- To achieve carbon neutrality by 2050, revisions of related strategies and plans were discussed, together with the strengthening of cooperation between related ministries and local governments.
- To adapt to emerging climate changes, efforts were made to develop and disseminate alternatives and technologies to prevent or reduce the impacts on agriculture. The planted area for high temperature resistant varieties, which are less vulnerable to quality deterioration at high temperatures, has increased.

Greenhouse gas emissions in the agriculture, forestry, and fisheries sectors (FY2019)



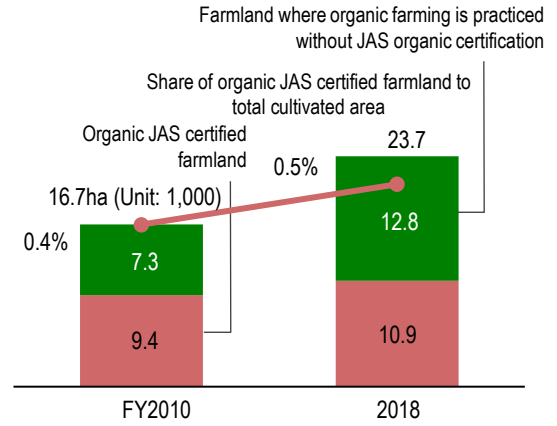
Niji-no-Kirameki, a high temperature resistant variety of rice

Source: National Agriculture and Food Research Organization (NARO)

Further Promotion of Organic Farming

- In 2018, the total area used for organic farming in Japan was 24,000 ha, or 0.5% of the total cultivated land area.
- In June 2020, MAFF launched the "SCAFF2030 project," a consortium of stakeholders engaged in actions to achieve the sustainable food production and consumption. In September, the "Japanese Organic Supporters" were established to stimulate demand for Japanese organic food.

Domestic organic farming areas



Source: Prepared by MAFF

Note: Organic JAS certified farmland area is the area certified as of April 1 of the following year.

10. Agriculture-related organizations supporting agriculture

- Local agricultural cooperatives are working on initiatives to raise the income of farmers through self-innovation. Also, during the COVID-19 pandemic, efforts have been made to support increased marketing of agricultural produce and processed products, and to match farmers with other industries to secure human resources.
- The Agricultural Committee Members for promotion of optimized farmland usage, which was established separately from the agricultural committee members, promoted efforts to optimize the use of farmland.
- Agricultural mutual relief associations, etc. have been established in 41 prefectures as of 2020 to improve the efficiency of operations.
- Efforts were made to strengthen the operational foundations of land improvement districts, including preparations for the obligatory compilation and publication of balance sheets from FY2022.

<Column> Kouseiren Hospital working to respond to COVID-19

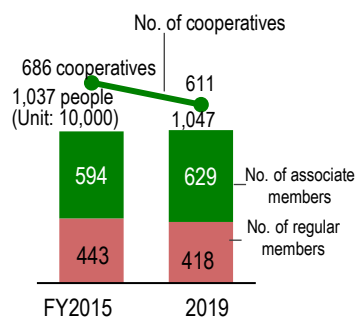
- Kouseiren Hospital, operated by the Welfare Federation of Agricultural Cooperatives, has accepted COVID-19 infected patients since the beginning of the outbreak in January 2020. By December of the same year, 67 hospitals had accepted the COVID-19 patients, for a total of 3,049 patients.
- The Japan Racing Association donated 500 million yen, the Zen-noh (National Federation of Agricultural Cooperative Associations) donated food support, and the National Mutual Insurance Federation of Agricultural Cooperatives donated masks to the Kouseiren (Welfare Federation of Agricultural Cooperatives).



Medical professionals working at Kouseiren Hospital

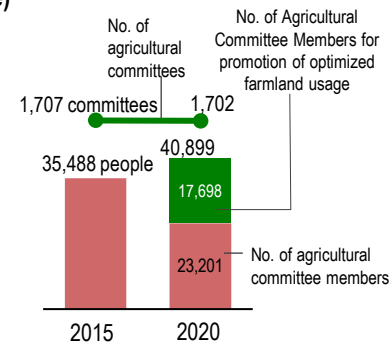
Source: National Welfare Federation of Agricultural Cooperatives

Agricultural cooperatives (general agricultural cooperative)



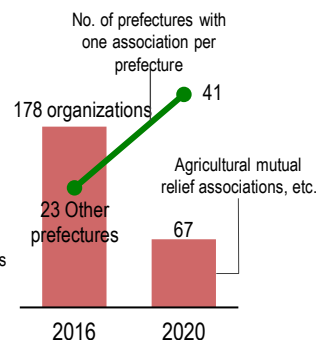
Source: MAFF, "Statistics on Agricultural Cooperatives"

Agricultural committees



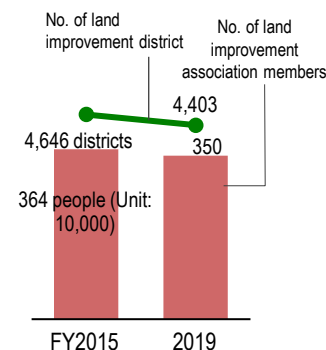
Source: Prepared by MAFF
Note: Agricultural Committee Member for promotion of optimized farmland usage was newly established in 2016

Agricultural Mutual Aid Association (AMA)



Source: Prepared by MAFF

Land improvement districts

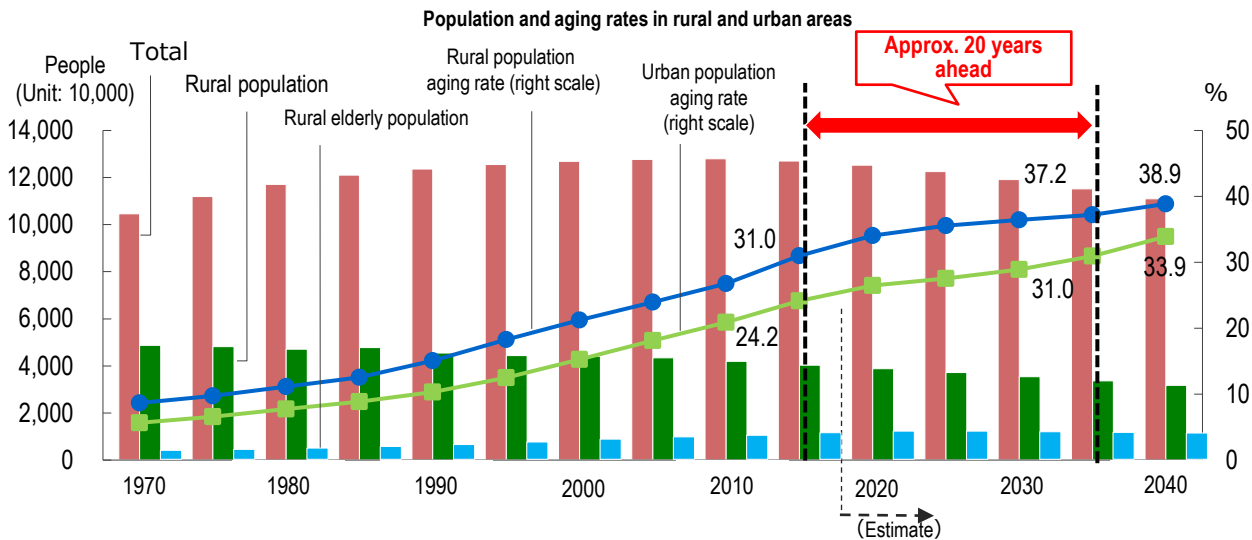


Source: Prepared by MAFF

Chapter 3 Promotion of Rural Areas

1. Trends in the return to rural living

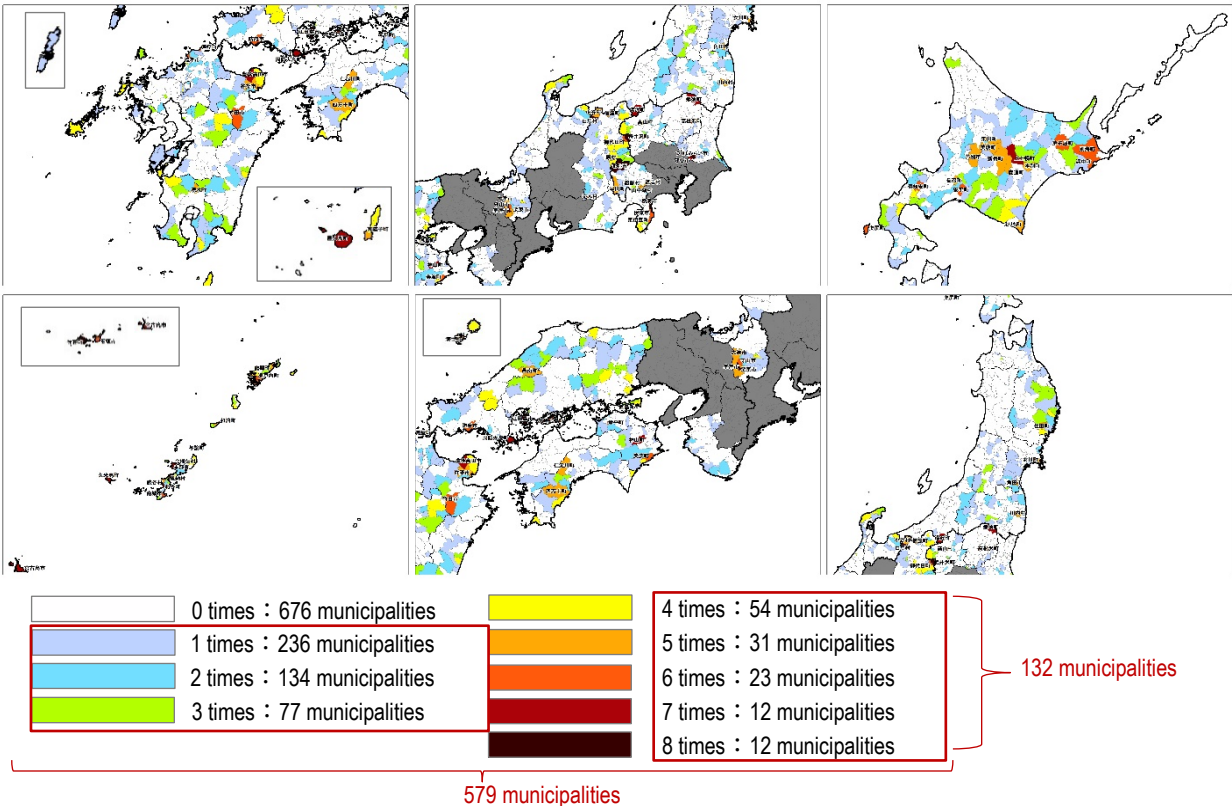
➤ Declining birthrate, aging society, and shrinking populations in rural areas ahead of urban areas



Source: Prepared by MAFF based on Ministry of Internal Affairs and Communications, "National Census," National Institute of Population and Social Security Research, "Regional Population Projections for Japan 2018"

Notes: 1) Areas with high population concentrations in the census are defined as urban areas, while others as rural areas.
2) The aging rate refers to the ratio of elderly people aged 65 and over to the total population.
3) Data for 1970-2015 are based on the National Census, and 2020-2040 on the Regional Population Projections for Japan (2018).

➤ The movement to return to rural areas has expanded nationwide. During the 8-year period from 2012 to 2019, 579 municipalities reported one or more times of excess in-migration from the three major metropolitan areas, and 132 municipalities reported four or more.



Source: Prepared by MLIT based on MIC, "Report on Internal Migration in Japan derived from the Basic Resident Registration"

Notes: 1) The color-coding is based on the number of times that the in-migrants from the three major metropolitan areas exceeded the out-migrants to the three major metropolitan areas in 2012-2018.

2) The three major metropolitan areas are the Tokyo metropolitan area (Saitama, Chiba, Tokyo, and Kanagawa prefectures), the Nagoya metropolitan area (Gifu, Aichi, and Mie prefectures), and the Osaka metropolitan area (Kyoto, Osaka, Hyogo, and Nara prefectures).

3) Data for which no figures are available due to the lack of a survey are counted as zero.

2. Promotion of various types of agricultural management such as multi-management to take advantage of local characteristics

Promoting agriculture in hilly and mountainous areas

- Hilly and mountainous areas account for about 40% of its total farming area and output, playing a key role in performing multiple functions including food production.
- The agricultural income per agricultural management entity in hilly and mountainous areas was 1.34 million yen in 2019, which is about 80% of the national average.
- Promoting the nationwide development of complex management to take advantage of the characteristics of hilly and mountainous areas.

Key indicators for hilly and mountainous areas

(Unit: 1,000 households, villages, 1,000 ha, 100 million yen)

	Nationwide	Hilly and mountainous areas	Percentage
Total number of farm households	2,155	953	44.2%
Number of rural communities	138,256	73,759	53.3%
Farmland area	4,496	1,841	40.9%
Agricultural output value	88,631	36,138	40.8%

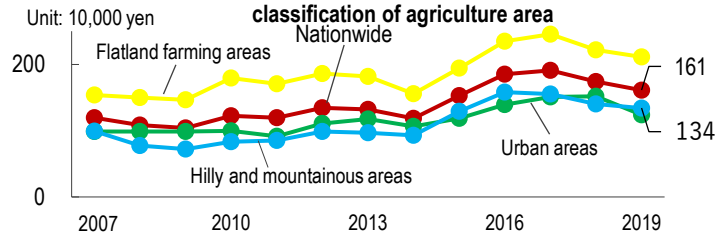
Source: Prepared by MAFF, "Census of Agriculture and Forestry 2015," "Statistics on Cultivated Land and Planted Area 2015," "Statistics of Agricultural Income Produced 2015"

Notes: 1) Classification of agriculture area is based on the revision in December 2017.
2) Farmland area and agricultural output in hilly and mountainous areas are estimated by MAFF

Promotion of urban agriculture

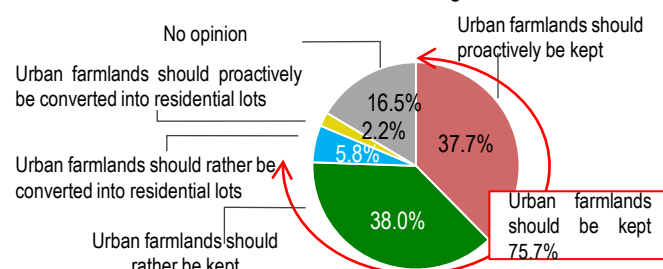
- 76% of respondents answered that they should keep urban agriculture and farmlands, up 4.7 percentage points from the previous year.
- With an urban farmland leasing act put into force in September 2018, leasing farmlands in productive green zones can now be done with security and 306,000 m² of farmland has been certified/approved at the end of FY2019.

Agricultural income per agriculture management entity by classification of agriculture area



Source: Prepared by MAFF based on "Statistics on Type of Management (individual management)"

Urban residents' views on conservation of urban agriculture and farmlands



Source: MAFF, Poll on Urban Agriculture

Notes: Online questionnaire conducted for residents of specified cities in three major metropolitan areas in May 2020
Questionnaire completed by 2,000 people

3. Promotion of innovation from rural areas such as countryside stay, agriculture-welfare collaboration, and renewable energy

Promoting the added value of local resources, including innovation from rural areas

- To ensure income and employment opportunities, new business opportunities are promoted through "innovation from rural areas," which is an initiative to discover and refine local resources in rural areas, and then combine them with other fields.

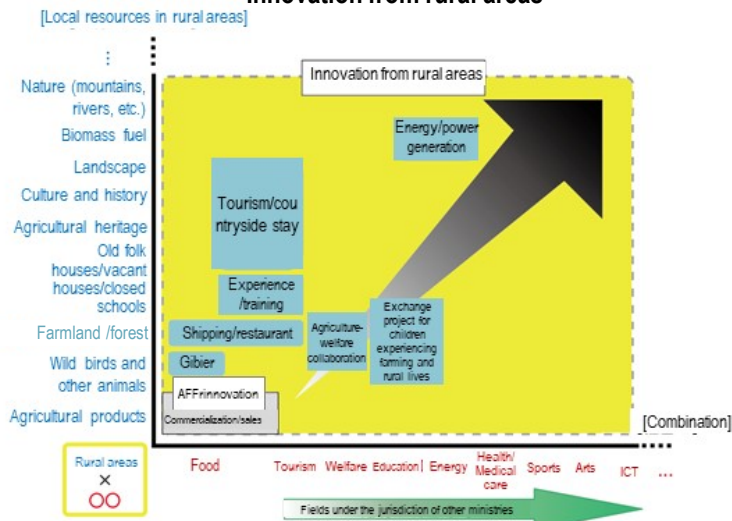
<Case Study> Development and sales of cosmetics using purple gromwells (a native flower of Shiga Prefecture)

- In Oku-Eigenji District of Higashiomi City, Shiga Prefecture, an endangered variety of purple gromwell (the city's official flower) is cultivated and commercialized to develop natural cosmetics.
- After successful agreements with buyers at a business expo in Feb. 2019, as of September 2020, the volume of product shipments exceeded 20,000 bottles. Sales value also increased approximately tenfold from before the business meeting.



Natural cosmetics
"MURASAKI no ORGANIC"

Innovation from rural areas



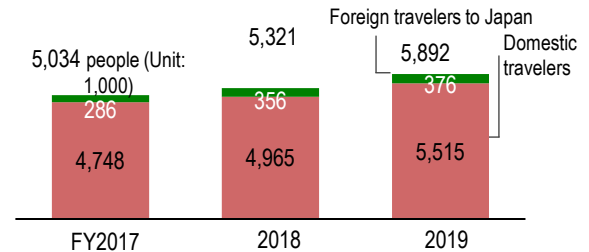
Promotion of countryside stay

- In FY2019, a total of 5.89 million guests visited the countryside stay regions, up 11% from the previous year. Of these, foreign visitors to Japan increased by 6% to 380,000.

Promotion of agriculture-welfare collaboration

- The farmland area of businesses engaged in agriculture-welfare collaboration increased by 25% over the three-year period from 2015 to 2018.
- In March 2021, 16 organizations were awarded with the "Nofuku Award" as best practices in agriculture-welfare collaboration
- Training programs were provided to educate persons with disabilities on farm work methods to support their establishment in the agricultural sector.

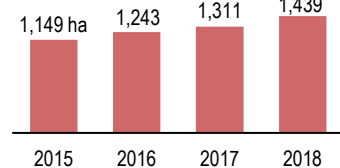
Total number of countryside stay guests



Source: Prepared by MAFF

Note: Including 515 regions for countryside stay adopted by FY2019

Farmland area of businesses that have engaged in agriculture-welfare collaboration



Source: Prepared by MAFF based on Japan Fund, Survey Results on the Effects and Challenges of Agriculture-Welfare Collaborations in FY2008

Notes: 1) A total of 350 farmers employ persons with disabilities or outsource farm work to welfare offices, etc.
2) A total of 113 businesses responded.

<Case Study> Revitalizing the community through agriculture and welfare (Hokkaido)

- Persons with disabilities at Yukinoseiboen Social Welfare Corporation in Tsukigata-cho, Hokkaido, engage in the production and sale of potatoes, mini-tomatoes, etc.
- Average monthly sales of agricultural products increased from 170,000 yen in 2013 to 250,000 yen in 2020.
- Through production as well as sales, the motivation of persons with disabilities to engage in farm work has increased.



Farm work

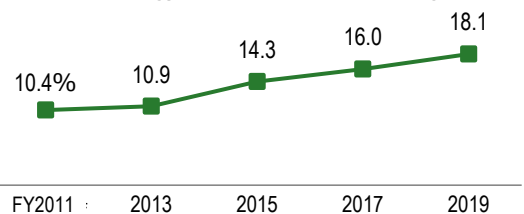


Preparing for shipment

Utilizing of renewable energy

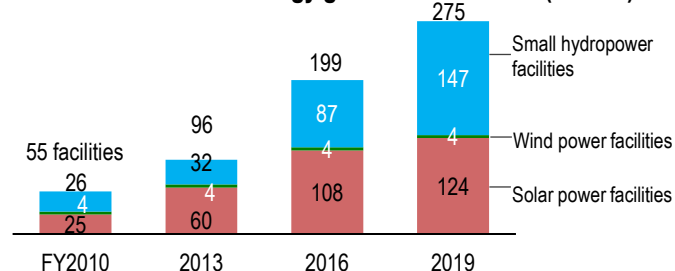
- The Long-term Energy Supply and Demand Outlook indicates a target of boosting renewable energy's share of total power generation to 22-24% by FY2030. The share in FY2019 rose by 1.2 percentage points from the previous year to 18%.
- By FY2019, 68 municipalities developed basic plans under the Act on Promoting the Generation of Electricity from Renewable Energy Sources Harmonized with Sound Development of Agriculture, Forestry and Fisheries, up 7 municipalities from the previous year.
- Utilizing agricultural irrigation facilities, etc., the government has developed 124 solar power facilities, 4 wind power facilities, and 147 small hydropower facilities as of the end of FY2019.
- Promoting the utilization of biomass fuels, i.e., rice straw, etc.

Renewable energy's share of total power generation



Source: Prepared by MAFF based on the Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry "General Energy Statistics"

Number of renewable energy generation facilities (in total)



Source: Prepared by MAFF

Note: Number of facilities developed under agricultural village development programs, etc.

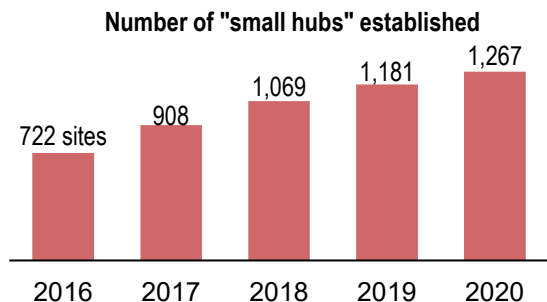


4. Improvement of conditions necessary for people to continue to live in rural areas including hilly and mountainous areas

Maintaining or strengthening local community functions

- To promote the formation of local communities and the creation of places for exchange, the government supports the creation of "local vision".
- As of the end of May 2020, 1,267 "small hubs"* were established nationwide. Besides facilities for processing and sales of agricultural products and inter-regional exchange, infrastructure improvements, such as farm roads to connect surrounding villages were developed.

* Areas that consolidate administrative facilities, schools, post offices, and other lifestyle support functions.



Source: Prepared by MAFF based on Secretariat for Regional Revitalization, Cabinet Office, "Survey on the Formation of Small Hubs"

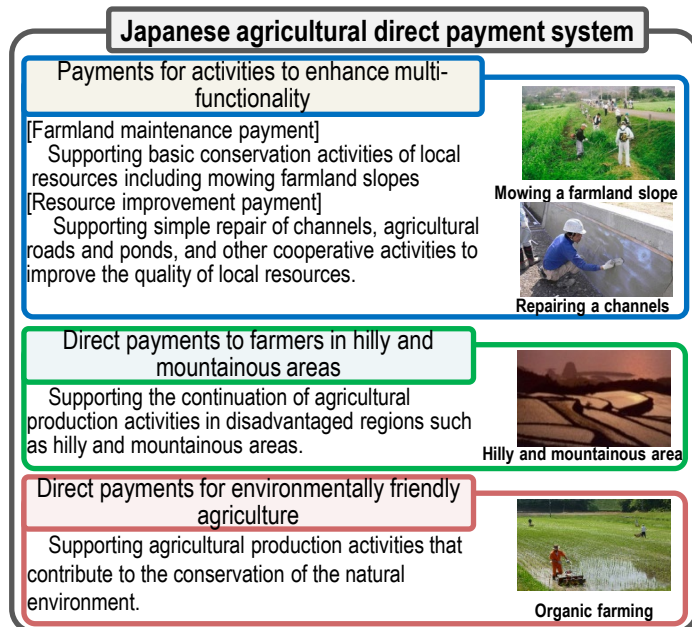
Notes: 1) As of the end of May each year

2) Number of small hubs identified in municipal comprehensive strategies

Promoting the exercise of multifunctional roles

- The payments for activities to enhance multifunctionality was revised so that grants can be adjusted among target organizations in the event of a major natural disaster. Also, development of emergency response system in the event of a disaster was added to the scope of the resource improvement payment to strengthen disaster prevention and mitigation.
- The 5th phase of the direct payments to farmers in hilly and mountainous areas has begun. The government is stepping up its support for forward-looking initiatives, such as developing rural communities' strategies to clarify the future of agricultural land and communities, strengthening local management functions in rural communities and supporting activities to conserve rice terraces and promote local development.
- The 2nd phase of the direct payments for environmentally friendly agriculture has started. Additional 5 initiatives such as living mulch methods and long mid-summer drainage were added as common initiatives nationwide, and the operation of regional special recognition initiatives, etc. was reviewed.

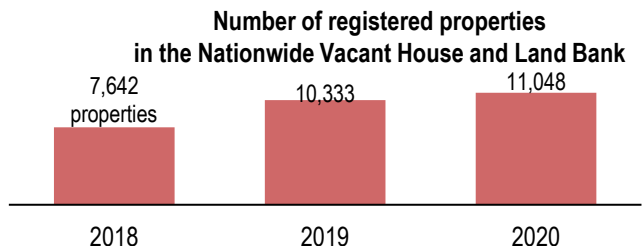
Outline of Japanese agricultural direct payment system



Source: Prepared by MAFF

Securing infrastructure, etc. for daily life

- Information websites on vacant houses and other properties are provided by some local governments. An umbrella website for these was established in 2018 and is operated as the "Nationwide Vacant House and Land Bank." As of the end of October 2020, the number of registered properties was 11,048, of which 495 were vacant houses with farmland.



Source: Prepared by MAFF based on MLIT data

Notes: 1) Number of properties currently listed as of the end of October each year.

2) Total number of properties listed on websites operated by LIFULL Co. and at home Co.

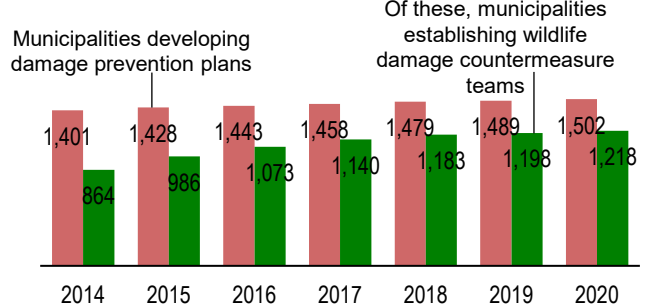


5. Wildlife damage countermeasures and utilization of gibier

Promotion of wildlife damage countermeasures, etc.

- Wildlife damage for FY2019 was 15.8 billion yen. Such damage discourages farmers from continuing agriculture or encourages them to abandon cultivation, posing serious impacts on rural areas.
- Based on the Act on Special Measures for Prevention of Damage Related to Agriculture, Forestry and Fisheries Caused by Wildlife, 1,502 municipal governments have developed damage prevention plans as of the end of April 2020. Of these, 1,218 municipalities have set up wildlife damage countermeasure teams, and each municipality is implementing a variety of measures.
- Comparing the amount of crop damage by wildlife by prefecture in FY2010 and FY2019, the amount of damage decreased to less than 1.0 occurrences in many areas due to damage prevention measures (i.e., installation of infestation-prevention fences), promotion of trapping activities, and environmental management of rural communities. In some prefectures in the Tohoku region, the amount of damage increased due to the habitat expansion of deer and wild boar from environmental changes caused by global warming and others.
- An "intensive hunting campaign," etc. during the hunting season from autumn onward was promoted to set a target number of animals to be captured in each prefecture.
- Drone patrol system on capture traps and automated baiting system were developed to promote the spread of efficient and smart capture technology using ICT and drones

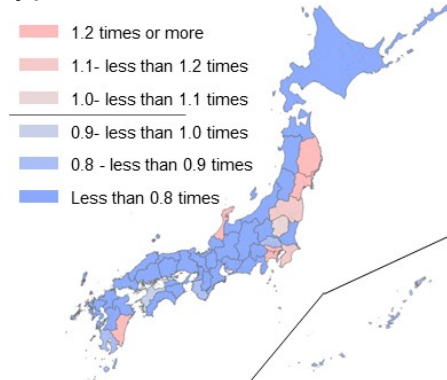
Number of damage prevention plans developed and number of wildlife damage countermeasure teams established



Source: Prepared by MAFF

Note: As of the end of April each year

Comparison of the amount of crop damage by wildlife by prefecture in FY2010 and FY2019



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Source: MAFF, "Survey on Crop Damage by wildlife by prefecture"

Note: The ratio of the amount of crop damage in FY2019 to the amount of crop damage FY2010

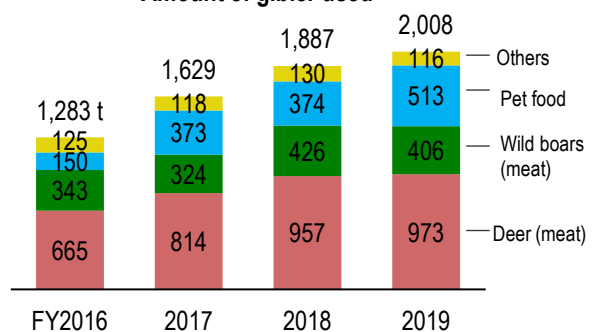


Awareness-raising poster for intensive trapping campaign

Increasing the use of gibier

- In FY2019, the amount of gibier used was 2,008 tons, up 6.4% from the previous year. The percentage of wildlife used for gibier was 9% overall; by category, 14% for deer and 5% for wild boars.
- Efforts were made to ensure consumer confidence through the domestic gibier certification system, to encourage gibier promotion, and to increase demand by using gibier in pet food.

Amount of gibier used

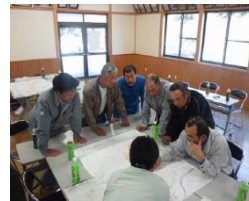


Source: MAFF, "Fact-finding Survey on Wildlife Resources Utilization"

Note: "Others" indicate wildlife meat other than deer and wild boars, meat for household consumption, etc.

<Case Study> Promotion of community-based wildlife damage countermeasures through cooperation among related organizations (Saga Prefecture)

- To cope with wildlife that migrate over wide areas, Karatsu City and Genkai Town cooperated to establish a council and comprehensively promoted damage countermeasures.
- Compared to FY2008 (before the project start), the number of wild boars caught increased 3.1 times in FY2017, while crop damage in Karatsu City and Genkai Town decreased by 65%.



Training sessions in the village

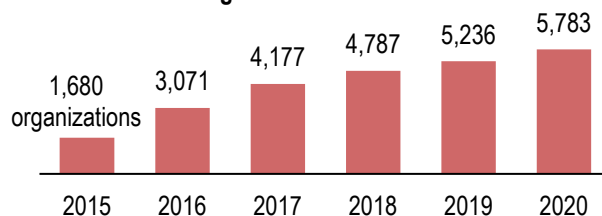
Source: Karatsu Region Council for Extensive Control of Harmful Wildlife

6. Creation of new movements and vitality to support rural areas

Creating systems and human resources to support the community

- Local management organizations engaged in the maintenance and management of public facilities and operation of local events, etc. are increasing. Through the direct payments for environmentally friendly agriculture program, etc., the government is promoting its establishment and regional development efforts.

Number of local management organizations established



Source: Prepared by MAFF based on Secretariat of the Headquarters for Overcoming Population Decline and Vitalizing Local Economy, Cabinet Secretariat, "Initiatives for the Establishment of Regional Management Organizations," MIC, "Results of Questionnaire Survey on Activities of Local Management Organizations 2019," MIC, "FY2020 Report on the Research and Study Project on the Establishment and Sustainable Operation of Local Management Organizations"

<Case Study> Comprehensive response to local issues and needs through local management organizations (Kochi Prefecture)

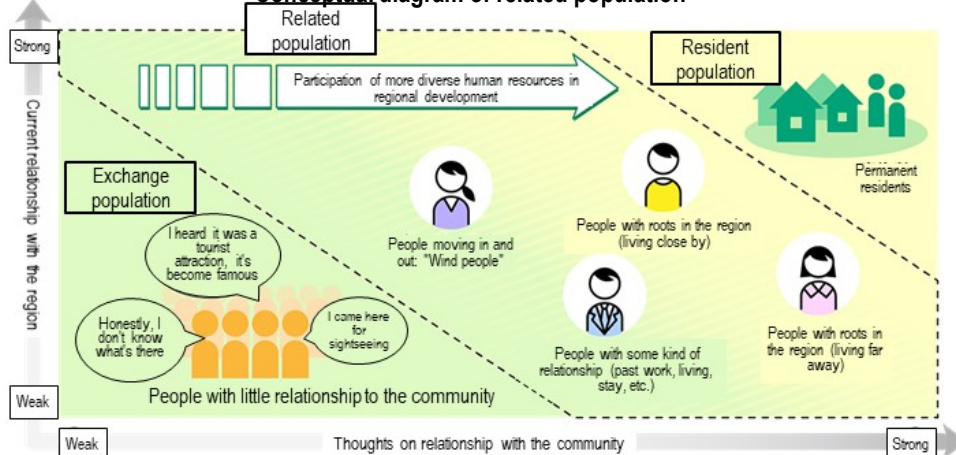
- Local residents of Mihara Village in Kochi Prefecture took the initiative in establishing a local management organization in FY2016. These included the cultivation, processing, and sale of shishito peppers and brand-name rice, as well as operating a restaurant.



Collaborative work by the local management organization

- The Act on the Promotion of Specific Regional Development in Areas with Rapidly Declining Population enacted in June 2020. As of March 2021, 5 municipalities nationwide were eligible to receive grants for specific community development projects.
- To increase the "related population," which is continuously involved with the community and local people in a variety of ways, the government supports initiatives for children to experience farming, mountain and fishing villages and hands-on farming.

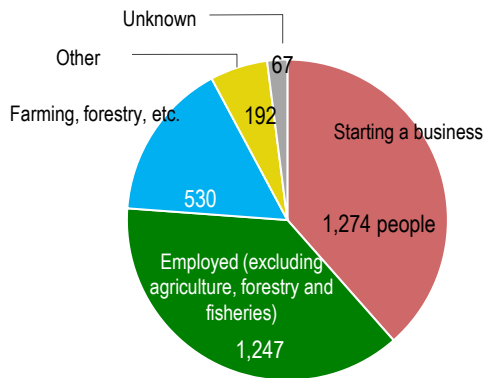
Conceptual diagram of related population



Source: Prepared by MAFF based on MIC, "Related population portal site"

➤ A total of 6,525 Community-Reactivating Cooperator Squad members have completed their terms of service as of the end of FY2019. Half of these (3,310 members) have settled in their host municipalities. They continue to play active roles in the local communities by starting businesses (i.e., old home cafés), working with community development and town planning support projects, or working for agricultural corporations.

Career paths of Community-Reactivating Cooperator Squad members who settled in host municipalities after completing their terms of service

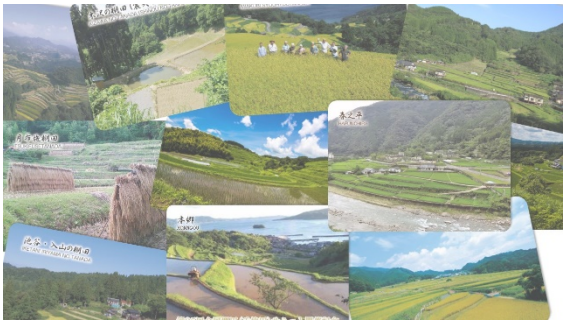


Source: Prepared by MAFF based on MIC, "Results of Survey on the Status of Settlement of Community-Reactivating Cooperator Squad Members in FY 2020"

- Notes: 1) Survey of 6,525 Community-Reactivating Cooperator Squad members who completed their terms of service by the end of FY2019
2) Results from 3,310 members who have settled in host municipalities as the place of activity
3) Out of those "Employed," those related to agriculture, forestry, and fisheries are included in "Farming, forestry, etc."

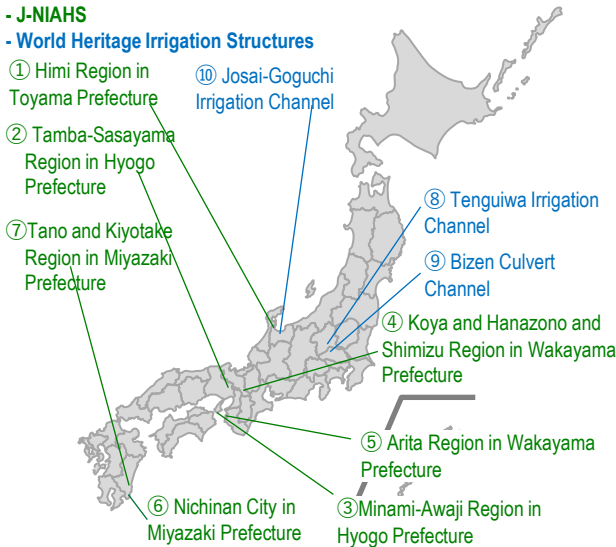
Promoting the appeal of rural areas

- In FY2020, a total of 629 areas were designated as rice terraces under the Act on Vitalization of Tanada Region, and 102 plans in total for promoting rice terraces prepared by regional councils in the designated areas were approved
- Efforts were made to promote interest in and attractiveness of rice terraces, such as the creation of rice terrace cards
- Areas that combine important and traditional agriculture, forestry, and fisheries with the culture and landscapes nurtured through these activities have been designated as Globally Important Agricultural Heritage Systems (GIAHS) and Japanese Nationally Important Agricultural Heritage Systems (J-NIAHS). In FY2020, seven regions were newly designated as J-NIAHS
- In 2020, the Discover Countryside Treasures in Japan program selected 28 areas and 4 people as excellent examples of revitalizing communities and/or rising income by drawing out the potential of the rural areas



Rice terrace cards

J-NIAHS and World Heritage Irrigation Structures newly recognized in FY2020



Source: Prepared by MAFF