Annual Report on Food, Agriculture and Rural Areas
In Japan

FY2003

Part 1  Trends in Food, Agriculture and Rural Areas
Summary
(Provisional Translation)
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Towards the Formulation of a New Basic Plan for Food, Agriculture and Rural Areas

Agricultural administration in Japan faces some major problems today. Not only is there an abiding sense of distance between the people and agriculture, with delays in the start of structural reforms, but new obstacles are also arising in issues such as protecting environments, as well as farmland, water for irrigation, and other resources.

Therefore, we now need to thoroughly review and revise the Basic Plan for Food, Agriculture and Rural Areas that was decided by the Cabinet in March 2000, as well as all measures based on it, and to urgently and vigorously promote the reform and transformation of agricultural administration. In particular, it is important that we quickly materialize the three important tasks that have existed since the existing Basic Plan was formulated, including a shift to a multi-commodity policy focusing on the business management of farmers.

Public debate aimed at a radical reform of measures and the formulation of a new Basic Plan is currently underway.

The Basic Law on Food, Agriculture and Rural Areas, in force since July 1999, clearly sets out the four basic principles of guaranteeing a stable supply of food, sufficiently manifesting the multi-functional roles of agriculture, sustainably developing agriculture, and promoting rural areas. In line with these basic principles, the Basic Plan for Food, Agriculture and Rural Areas, which presents food self-sufficiency ratio targets and measures to be taken in connection with food, agriculture and rural areas, was decided by the Cabinet in March 2000.

Various measures based on this Basic Plan have been taken to date. In the food sector, Dietary Guidelines have been drawn up, while in the agricultural sector, measures have targeted involvement by agricultural production corporations of a joint-stock company format, reviews of the price stability system, and the introduction of business stability measures for individual commodities. In the rural areas sector, finally, a system of direct subsidy payments to hilly and mountainous areas has been created. Triggered by a spate of incidents and accidents that have threatened the safety and reliability of food, meanwhile, the Ministry of Agriculture, Forestry and Fisheries (MAFF) published its “Food” and “Agriculture” Revival Plan in 2002. Based on this Plan, various reforms are being pursued in each sector, including the promotion of rice policy reforms and the development of agricultural administration with its focus shifted to consumers, with a view to guaranteeing the safety and reassurance of food.

The present reality of Japan’s agriculture and rural areas, however, is that structural reforms in land-extensive agriculture remain slow to materialize. Moreover, a decline in village functions and an increase in abandoned farmland due to population aging, depopulation of rural areas, and mixed habitation by farm and non-farm households is hindering the manifestation of the multi-functional roles of agriculture. There is also an abiding sense of distance between the people and agriculture, and we need to make efforts to promote mutual understanding between consumers and producers and to guarantee the safety and reliability of food. In addition to these issues, there have been calls from various countries, in WTO agricultural negotiations and FTA negotiations, for stronger international regulation.

Based on this situation, quickly promoting the reform and transformation of agriculture is now a task of pressing urgency. To achieve this, we need to quickly promote important measures that have already started to take shape, and thoroughly review and revise all measures based on the Basic Plan. In particular, with a view to promoting creative efforts by farmers, accelerating structural reforms, and manifesting the multi-functional roles of agriculture, we need to conduct priority studies on three tasks, namely (1) a shift from price
and business stability policies for individual commodities to a multi-commodity policy that supports the business management of farmers, (2) reforming the system of farmers and farmland to achieve a desirable agricultural structure and land use, and (3) greater promotion of measures that emphasize environmental protection, and establishing policies to protect farmland, water for irrigation, and other resources. We need to clarify the directionality of these reforms and take steps to materialize measures quickly.

We have already been working positively towards these reviews and revisions since the middle of 2003. The main points of debate concerning these three priority tasks are as follows.

Transition to a multi-commodity policy

In our existing production and business management measures, we have adopted the method of securing production volumes for individual commodities in all farms, under pressure from price policies and frontier measures to bridge the gap with the superior productivity of other countries. While this method was valid in view of guaranteeing production volumes for individual commodities, it also tended to invite disadvantages, such as a delay in the structural reform of agriculture and a mismatch between production and demand. Therefore, we need to shift from the existing system of policies targeting all farms via price policies, to a system of policies whereby support is concentrated in efficient and stable agricultural management, etc., and the options for independent commodity selection tailored to market needs are broadened. This should be achieved by creating a lateral, multi-commodity system focused not on individual commodities but on the farms themselves.

The range of farmers subject to this multi-commodity policy needs to be studied fully with a view to gaining public understanding. In terms of farm types, we assume land-extensive agriculture of both upland- and paddy-field crops, in which there is not only a large gap in productivity with other countries but also a tendency towards mixed farming. Possible forms of support, meanwhile, could consist of reducing the impact of revenue and income fluctuation, correcting the disparity in production conditions with other countries, and so on. Based on these points, concrete ideas for this system will be a task for study in future.

Reforming the system of farmers and farmland

Farmland is the most fundamental element in agricultural production. However, the area of farmland has been shrinking year by year, owing partly to the abandonment of cultivation. The concentration of farmland in farmers has fallen, and individual or scattered superior farmland in areas around villages is increasingly being converted to other uses. These factors are causing a decline in food supply capacity and delays in structural reform. Therefore, as well as accelerating the concentration of farmland and other agricultural production resources in local farmers, we also need to find farmers who have motivation and ability. To secure a basis for the food supply capability, meanwhile, we also need to study ideal farmland and land use systems that will meet the diverse requirements of farmland and contribute to securing and maintaining superior farmland.

Specifically, we plan to intensify studies around issues such as a systematic development of measures to clarify the role of “farmers” as well as further concentrating and prioritizing measures in farmers, the nationwide diffusion of frameworks of special structural reform districts, in which participation by limited companies is permitted via the lease method, revision of the requirements for participation in agriculture, such as those of farmland acquisition and agricultural production corporations, revisions concerning removal from agricultural promotion arable land zones and farmland conversion, and so on.
Establishing policies to protect agricultural environments and resources

Environments, farmland, water for irrigation and other resources cover broad areas in the regions, and could be seen as shared social assets whose benefits impact the nation as a whole. However, rural areas are suffering from progressive population aging, depopulation of rural areas, mixed habitation by farm and non-farm households, and other phenomena. There is an ongoing decline in land use ratios and an increase in abandoned farmland, and these are hindering appropriate management and maintenance. Therefore, by constructing a system to protect and augment these environments and resources, we must take steps to maintain the food supply infrastructure and guarantee the manifestation of multi-functional roles, as well as balancing the formation of richly natural rural spaces that meet the diverse expectations of the people, with the development of agriculture by efficient and stable farms, etc. Meanwhile, we should also aim for a total transformation to sustainable agricultural production with emphasis on the environment, since agriculture is expected to contribute to “materializing a sustainable, recycling-type society”.

When conducting our studies, we need to convert to a more efficient, effective system of measures, such as clarifying the respective burdens on central and local governments and the public and private sectors, in line with the state of implementation of measures so far and changes in the situation after the formulation of the Basic Plan. Then it should become possible to improve Japan’s food self-sufficiency ratio, in conjunction with this kind of policy shift and the materialization of a desirable pattern of food consumption.

While the Basic Plan is to be reviewed every 5 years or so, we are promoting public debate aimed at formulating a new Basic Plan that will systematically incorporate radical reforms of these measures. In future, we will pursue highly transparent debate in the Policy Council on Food, Agriculture and Rural Areas\(^1\) and elsewhere. We plan to organize the interim points in around summer 2004, and the final points at around the end of the year, before deciding the new Basic Plan by March 2003.

\(^1\) By the end of March 2004, the Policy Council on Food, Agriculture and Rural Areas had met once and the Council’s Planning Subcommittee four times.
Towards the Formulation of a New Basic Plan for Food, Agriculture and Rural Areas

Basic Law on Food, Agriculture and Rural Areas
(July 1999)

Basic Plan for Food, Agriculture and Rural Areas
(March 2000)

- Basic policy on measures related to food, agriculture and rural areas
- Measures related to sustainable development of agriculture

Food self-sufficiency Ration targets
- Measures related to the promotion of rural areas
- Measures related to securing a stable supply of food

(Topics for study)
- Measures for multi-commodity management stability
- Directions for systems of agricultural land use
- Agricultural environment policies

Directions for development of main measures
- Amendment to the Agricultural Land Law, introduction of limited company format
- Amendment to the Land Improvement Law, consideration for environmental harmony
- Review of price stability system and introduction of measures for individual commodity management stability
- Creation of a system of direct payments to hilly and mountainous areas, etc.
- Promotion of “coexistence and exchange between urban and rural, mountainous and fishery areas”
- Formulation of a “Biomass Nippon Strategy”

Guarantee of food safety and reassurance
- Formulation of “Dietary Guidelines”
- Formulation of an “Manual for Guaranteeing the security of Food in Emergencies”
- “Food” and “Agriculture” Revival Plan (April 2002)
- “Food Safety and Reassurance”
- Reinforcement of food labeling regulations through amendment to the JAS Law
- Promotion of “food education” and “risk communication”
- Introduction of a traceability system

Acceleration of agricultural structure reforms
- Radical reform of rice policies
- Participation of limited companies in agriculture using a lease system based on special districts
- Promotion of incorporation of farm management
- Promotion of “coexistence and exchange between urban and rural, mountainous and fishery areas”
- Formulation of a “Biomass Nippon Strategy”

- Delay in start of structural reform
- Problems in manifesting multi-functional roles
- Mismatch between demand and production
- Strengthening of international regulations

Radical reform of measures
- Guarantee of food safety, reassurance, and stable supply
- Sustainable development of food industry
- Promotion of rural areas

- Shift to a multi-commodity policy with focus on farmers’ management
- Reform of system of farmers and farmland
- Establishment of policies to protect agricultural environments and resources

Formulation of a new Basic Plan for Food, Agriculture and Rural Areas

Basic Plan updated every five years or so

Basic policy on measures related to food, agriculture and rural areas

2000

2000-01

2002-03

2003-04

2005
2 Incidences of BSE and Highly Pathogenic Avian Influenza in Japan and Other Countries

In December 2003, a case of BSE was confirmed in the USA for the first time. Japan immediately banned imports of US beef and related products. Meanwhile, regions affected by highly pathogenic avian influenza ("bird flu") have expanded, particularly in Asia, and bans have been placed on imports of chicken meat and related products from Thailand, China and elsewhere.

In Japan, too, cases of BSE infection have been confirmed, together with the first incidence of bird flu in 79 years. We are now taking measures to prevent the spread of these diseases in line with the Animal Infectious Diseases Control Law.

These very countries tend to be the ones from which Japan imports meat. A major issue in future, therefore, will be how to secure a stable supply of meat, such as by using safe and reliable domestic produce.

In Japan, we not only remove all BSE specified risk material (SRM) – namely the head (except tongue and cheeks), spinal cord and distal ileum – from carcasses shipped to domestic markets, but also test all animals irrespective of age. In this way we hope to remove public anxiety over beef and restore public confidence. We also prohibit the use, in food products, of bovine spinal columns imported from BSE affected countries. BSE testing in other countries is usually conducted on cattle aged upwards of 24 or 30 months. However, the 9th Japanese case of BSE infection (confirmed in November 2003) was 21 months old, demonstrating the validity of Japan’s system of all-animal testing. Partly due to the effects of these measures, consumption of beef in Japan has at last started to recover.

In December 2003, however, a case of BSE infection was confirmed in the USA for the first time. The Japanese government immediately banned imports of US-produced beef and related products. We are currently engaged in discussions with the USA, on the precondition of guaranteeing safety and reliability for consumers.

Meanwhile, regions affected by highly pathogenic avian influenza ("bird flu") have expanded, particularly in Asia. At the end of January 2004, Japan banned imports of chicken meat and related products from Thailand, China, and other countries and regions. In Japan, too, the first incidence of bird flu in 79 years was confirmed in January. We are now applying rigorous measures to prevent the spread of these diseases in line with the Animal Infectious Diseases Control Law and animal quarantine manuals.

As a result of these measures, imports from countries that account for 30% and 20%, respectively, of the domestic supply volumes of beef and chicken meat have been stopped. This has had various effects on meat consumption and demand in Japan, such as a ban on sales of “gyudon” (rice topped with beef) using US beef, changes in restaurant menus and import sources, and so on.

Japan is the world’s largest net importer of agricultural products, and has a considerable dependence on other countries for its supply of meat. Moreover, our import sources tend to be concentrated in specific countries. In this modern age, when people and commodities can move across national borders in large numbers, it is important that we take steps not only to maintain and expand the domestic food supply capability, but also to improve the import quarantine system and diversify import sources, with a view to securing a stable supply of safe and reliable food for the people.

The Food and Agriculture Organization of the United Nations (FAO) has announced its estimate that 6 million tons of meat, equivalent to one-third of the world’s meat exports, have been impacted by incidences of BSE and bird flu. Collaboration between the countries of the world will be important to minimize this impact and prevent the spread of these diseases in future. To this end, we are required to provide information on the occurrence of infectious diseases quickly, and to construct a system of international quarantine.
The World’s Principal Beef-Exporting Countries

Canada
430,000 tons

EU
400,000 tons

USA
780,000 tons

Brazil
620,000 tons

India
290,000 tons

Australia
900,000 tons

New Zealand
320,000 tons

Argentina
240,000 tons

Note 1: Figures are the total export volume in 2002 (cut meat conversion base).
Note 2: Of the above 8 countries, only Australia and New Zealand export can export to Japan, owing to livestock diseases (as of March 2004).

Countries and regions from which Japan has stopped imports of chicken meat, etc., in conjunction with outbreaks of high-pathogen avian influenza

China
Jan. 27th, 2004 -

Taiwan
Jan. 15th, 2004 -

Hong Kong
May 18th, 2001 -

South Korea
Dec. 12th, 2003 -

Canada
March 10th, 2004 -

USA
Feb. 7th, 2004 -

Argentina
Jan. 9th, 2004 -

Vietnam
Jan. 9th, 2004 -

Note: As of March 31st, 2004.
3 Agricultural Trade Negotiations (WTO, FTA)

Regarding the WTO agricultural negotiations, which started in 2000, the Members were unable to establish modalities for negotiations by the original deadline, the end of March 2003. At the 5th WTO Ministerial Conference held in September 2003, the gap between developed and developing countries remained as wide as ever, and the Conference closed without any concrete agreement being reached (including the agricultural sector). There is now increasing interest, on the other hand, in free trade agreements (FTAs), which abolish tariffs between specific countries and regions. These agreements are rapidly increasing in number.

Japan’s basic stance is to maintain and strengthen the multilateral trading system through WTO and to positively promote FTAs.

The WTO agricultural negotiations started in 2000, based on the provisions of the WTO Agreement on Agriculture. A New Round with a deadline of January 1st, 2005, was launched in 2001, and the agricultural sector was positioned as one on which agreement should be reached together with other sectors in a single undertaking. While the original schedule was to establish modalities for negotiations by the end of March 2003, the Members were unable to achieve this by then. The reason for the failure is that exporting countries remained intransigently bound to excessive demands, such as drastic reductions in agricultural tariffs, and thus the gap between these exporting countries and other countries (including Japan and the EU) could not be bridged.

At the 5th WTO Ministerial Conference held in Cancun, Mexico, in September 2003, Japan joined with Switzerland and other countries that shared a similar position to submit a joint proposal by a group of ten countries (G10). In the revised Draft Ministerial Text presented by the Chairperson at the Conference, a provision was added, albeit in brackets, to the effect that some products would be treated as exceptions to tariff capping in view of non-trade concerns. Nevertheless, the gap between developed and developing countries remained as wide as ever, and the Ministerial Conference closed without any concrete agreement being reached (including agricultural negotiations). Discussions have continued since then, and in March 2004, a WTO Committee on Agriculture Special Session was convened to resume agricultural negotiations. Though differences of opinion between countries still remained, it was agreed to aim for a framework agreement by July 2004.

While the WTO (which consists of 148 countries and regions) decides systems of trade between many countries at a time, there is now a rapidly increasing worldwide trend toward bilateral economic collaboration through free trade agreements (FTAs), etc. Among others, these are designed to abolish tariffs between two countries or regions, making it easier to reach agreement.

Japan’s basic stance is to maintain and strengthen the multilateral trading system through WTO, and to positively promote FTAs. In January 2002, Japan concluded an Economic Partnership Agreement with Singapore, Japan’s first FTA. In March 2004, meanwhile, Japan reached a virtual agreement on an FTA with Mexico.

In addition, negotiations and studies on FTAs are currently underway with South Korea, Thailand, Malaysia, the Philippines, Indonesia, ASEAN, etc.

Japan’s food self-sufficiency rate is the lowest of all leading industrialized nations, and many people in Japan are anxious about the stability of the food supply. Given this situation, when negotiating FTAs, we need to take full account of the multifunctionality of agriculture, forestry and fisheries, as well as food safety and progress of structural reforms in agriculture, forestry, and fisheries in Japan. In negotiations with other Asian countries, which will take more concrete shape in future, we should draw on the experience gained in negotiations with Mexico (Japan’s first FTA that includes the abolition of tariffs on agricultural, forestry and fishery products). We should approach negotiations positively and strategically, with an eye to expanding exports of Japanese agricultural, forestry and fishery products, based on the above basic rationale.

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2 Cambodia’s membership has yet to come into effect (as of April 30, 2004).
### Past Developments in Agricultural Product Trade Negotiations and Expected Future Movements

<table>
<thead>
<tr>
<th>Date</th>
<th>WTO</th>
<th>FTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 2004</td>
<td>● General Council Meeting (Feb. 11-12, Geneva)</td>
<td>● 12th Japan-Mexico FTA Negotiation Working Level Meeting (Dec. 1-5, Mexico City)</td>
</tr>
<tr>
<td>Feb.</td>
<td>● 1st Japan-ROK FTA Negotiation Meeting (Jan. 13, Putra Jaya)</td>
<td>● 1st Japan-Malaysia FTA Negotiation Meeting (Jan. 26-30, Tokyo)</td>
</tr>
<tr>
<td></td>
<td>● General Council Meeting (Mar. 22-26, Geneva)</td>
<td>● 13th Japan-Mexico FTA Negotiation Working Level Meeting (Feb. 23-25, Tokyo)</td>
</tr>
<tr>
<td>Mar.</td>
<td>● WTO Committee on Agriculture Special Session (Feb. 11-12, Geneva)</td>
<td>● 1st Japan-Philippines FTA Negotiation Meeting (Feb. 4-5, Manila)</td>
</tr>
<tr>
<td></td>
<td>- Elections of new General Council Chairpersons</td>
<td>● 1st Japan-Thailand FTA Negotiation Meeting (Feb. 16-17, Bangkok)</td>
</tr>
<tr>
<td></td>
<td>- Start of negotiations by each Negotiating Group</td>
<td>● 2nd Japan-ROK FTA Negotiation Meeting (Mar. 9-11, Tokyo)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Japan-Mexico FTA Virtual Accord (Mar. 12)</td>
</tr>
<tr>
<td>April</td>
<td>● WTO Committee on Agriculture Special Session (Apr. 20-23, Geneva)</td>
<td>● 2nd Japan-Philippines FTA Negotiation Meeting (Apr. 14-16, Tokyo)</td>
</tr>
<tr>
<td>May</td>
<td>● WTO Committee on Agriculture Special Session (June 2-4, Geneva)</td>
<td>● 3rd Japan-ROK FTA Negotiation Meeting (Apr. 26-28, Seoul)</td>
</tr>
<tr>
<td>June</td>
<td>● WTO Committee on Agriculture Special Session (June 23-25, Geneva)</td>
<td>(Meetings with ROK, Malaysia, Philippines and Thailand due to be held about once every two months)</td>
</tr>
<tr>
<td>July</td>
<td>● WTO Committee on Agriculture Special Session (July 14-16, Geneva)</td>
<td></td>
</tr>
<tr>
<td>Aug.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec.</td>
<td>(TBD) WTO Ministerial Conference (Hong Kong)</td>
<td>(Japan-ROK talks due to reach a substantial conclusion before the end of 2005)</td>
</tr>
</tbody>
</table>
### 4 The Impact of Abnormal Weather on Agricultural Production

In Japan, paddy rice and other field crops suffered major damage due to low temperatures from the middle of May 2003. Overseas, meanwhile, there were droughts in North America and Australia in 2002, and a heatwave in Europe in 2004, greatly reducing grain production in the respective regions in those years.

Such abnormal weather patterns and meteorological disasters in Japan and abroad have a tremendous impact on agricultural production, and are a factor of instability in the world’s food supply and demand, even in this modern age with its advanced technological innovation.

<table>
<thead>
<tr>
<th>Year</th>
<th>Region</th>
<th>Weather Event</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>Japan</td>
<td>Cool summer</td>
<td>Damage</td>
</tr>
<tr>
<td>2002</td>
<td>North America</td>
<td>Drought</td>
<td>Damage</td>
</tr>
<tr>
<td>2004</td>
<td>Europe</td>
<td>Heatwave</td>
<td>Damage</td>
</tr>
<tr>
<td>2001</td>
<td>North America</td>
<td>Drought</td>
<td>Damage</td>
</tr>
<tr>
<td>2002</td>
<td>Eastern Australia</td>
<td>Drought</td>
<td>Damage</td>
</tr>
</tbody>
</table>

In Japan, under the impact of a cool summer, paddy rice and other field crops suffered major damage in 2003, estimated in financial terms at 393.8 billion yen. There has been an increasing tendency to plant varieties with high resistance to cold in recent years, based on the lessons learnt in 1993 (the worst harvest since World War II). To protect rice from low temperatures, lack of sunshine, and pest damage, meanwhile, farmers have been focusing on fertilizer application, water management and pest control tailored to meteorological and growing conditions. Even so, especially in Hokkaido and the Pacific side of the Tohoku region, there was a prolonged spell of markedly low temperatures in around mid-July. This had a major impact, mainly on paddy rice, which had entered the reducational division stage when it is most susceptible to damage by low temperatures.

Overseas, there were droughts in mid-west North America between September 2001 and October 2002, and again between June and August 2003. In eastern Australia, there was a prolonged dry period from around March 2002, with increasingly serious damage to field crops caused by drought from the beginning of 2003. In Europe, record temperatures continued over a wide area from June to August, causing major damage to field crops.

One factor cited to explain the occurrence of these weather anomalies and meteorological disasters is the changing course of the westerly winds. If they meander greatly from north to south and divide into two, a large-scale high-pressure phenomenon known as “blocking high pressure” sits between them. These “blocking highs” restrict or block the flow of the westerlies, causing the same weather pattern to continue in the same place for lengthy periods. The heat wave in Europe was caused by a blocking high that arose near the Scandinavian peninsula, while subtropical high pressure, dried by high temperatures near the Mediterranean, spread broadly northwards. Elsewhere, another blocking high arose near the Okhotsk Sea, and, as a result, cold air near the North Pole was blocked and moved southwards to the Japanese archipelago. Conversely, there was only weak northward movement of Pacific high pressure, and a cold front lingered over Japan, leading to bad weather and a cool summer.

Meanwhile, the El Niño phenomenon occurred between spring 2002 and the beginning of 2003. El Niño is allegedly related to weather anomalies all over the world, in the form of drought, floods, and abnormally high or low temperatures.

Thus, even in our modern age, when technological innovation is so advanced, agricultural production is still greatly affected by weather conditions. It has also been pointed out, moreover, that the international supply and demand for major grain and soybeans could be tight in the medium to long term, owing to many elements of instability that have an impact on agricultural production, namely the exhaustion of water resources, salinification, soil runoff, and desertification.
Paddy rice crop condition index (average year = 100)

<table>
<thead>
<tr>
<th>Region</th>
<th>1993</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole country</td>
<td>74</td>
<td>90</td>
</tr>
<tr>
<td>Hokkaido</td>
<td>40</td>
<td>73</td>
</tr>
<tr>
<td>Tohoku</td>
<td>56</td>
<td>80</td>
</tr>
<tr>
<td>Aomori</td>
<td>28</td>
<td>53</td>
</tr>
<tr>
<td>Iwate</td>
<td>30</td>
<td>73</td>
</tr>
<tr>
<td>Miyagi</td>
<td>37</td>
<td>69</td>
</tr>
<tr>
<td>Akita</td>
<td>83</td>
<td>92</td>
</tr>
<tr>
<td>Yamagata</td>
<td>79</td>
<td>92</td>
</tr>
<tr>
<td>Fukushima</td>
<td>61</td>
<td>89</td>
</tr>
</tbody>
</table>

Value of estimated damage to agricultural crops

<table>
<thead>
<tr>
<th>Crop</th>
<th>Amount ($100 million)</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3,938</td>
<td>100.0</td>
</tr>
<tr>
<td>Paddy &amp; upland rice</td>
<td>3,090</td>
<td>78.5</td>
</tr>
<tr>
<td>Vegetables</td>
<td>275</td>
<td>7.0</td>
</tr>
<tr>
<td>Fruit</td>
<td>157</td>
<td>4.0</td>
</tr>
<tr>
<td>Cereals, pulses</td>
<td>152</td>
<td>3.9</td>
</tr>
<tr>
<td>Fodder crops</td>
<td>150</td>
<td>3.8</td>
</tr>
<tr>
<td>Industrial crops</td>
<td>59</td>
<td>1.5</td>
</tr>
</tbody>
</table>

The World’s Main Meteorological Disasters in 2003

Note: “High” indicates position of blocking high pressure.
5  Promoting Rice Policy Reform

Based on the “Principle and Outline of Rice Policy Reform”, designed to shape the future of paddy field farming, the Law for Stabilization of Supply, Demand and Prices of Staple Food has been amended, and various measures, such as the Rice Diversion Program, have been materialized. In each local area, meanwhile, municipalities and other stakeholders established “Future Visions of Paddy Field Farming for Local Areas” based on their own efforts and progress. In this and other ways, specific initiatives on rice policy reform are being steadily promoted.

The reform of rice policies is proceeding to achieve “desirable rice farming” based on year-by-year action plans by 2010.

In 2003, “Future Visions of Paddy Field Farming for Local Areas” were established in various areas, starting with a thorough familiarization of the gist and content of reforms. This “Future Vision of Paddy Field Farming for Local Areas” sets out the basic directions for reform of areas paddy field farming, crop planting and sales targets, and specific targets for centralizing land use to core farmers. It plays an extremely important role, from the viewpoint of the future prospect for paddy field farming based on local stakeholders’ intentions and efforts.

Meanwhile, the Law for Stabilization of Supply-Demand and Price of Staple Food has been amended (with effect from April 2004) as to include a abolishment of the orderly marketed system, formulation basic guidelines for presenting information on supply and demand, revision production adjustment measures, etc. At the same time, various other measures accompanying reform have been decided. These are the “Rice Diversion Program” in support of areas’ efforts to promote structural reform of paddy field farming and conserve paddy field environments to meet the expectations of consumers; “Rice Farming Income Stabilization Programs” designed to stabilize rice farming incomes; and “Farmer’s Income Stabilization Program”, through which subsidies will be provided for farmers engaged in paddy field farming above a certain scale.

While initiatives aimed at some reforms will start in earnest in 2004, we will also need to steadily promote reforms through concerted action not only by farmers and farmers groups but also by the administration and distributors, together with the integrated development of production and business measures, with a view to realizing the “Future Vision of Paddy Field Farming for Local Areas”.

6 Promoting Reforms of Agricultural Cooperatives

Agricultural cooperative organizations are promoting initiatives designed to accelerate and carry out reforms of agricultural cooperatives, based on a resolution by the 23rd JA National Convention in October 2003. The Ministry of Agriculture, Forestry and Fisheries plans to amend the present system in order to support these initiatives. The agricultural cooperative system needs to reap concrete results from reforms and win the trust of farmers and consumers.

Agricultural cooperatives are organizations for mutual assistance by farmers, their members. Until now, agricultural cooperatives have provided their members with various services related to farming and subsistence. They have played an important role in the stable supply of food, the sustainable development of agriculture, and the promotion of rural areas. In recent years, however, the environment surrounding agricultural cooperatives has changed greatly, with an increase in large-scale farms, non-commercial farms, and side-business farms, a diversification of consumer needs, and heightened consumer concern over the safety and reliability of food. Agricultural cooperatives have been unable to adapt sufficiently to these changes, and there is now an increasing need to promote their reform.

In particular, many agricultural cooperatives are slow to reform their operations, notably economic operations involving the sale of agricultural products and the purchase of agricultural materials, and member farmers are increasingly expressing the view that “there is little merit in using services provided by agricultural cooperatives”.

From September 2002, MAFF hosted a “Research Group on Ideal Directions for Agricultural Cooperatives”. Its report, published in March 2003, advocated radical reforms, mainly of economic operations. In response to the report, agricultural cooperative organizations are promoting initiatives designed to accelerate and carry out reforms of agricultural cooperatives, based on a resolution by the 23rd JA National Convention in October 2003. The government, meanwhile, submitted a Bill for Amendment to the Agricultural Cooperative Law to the regular Diet session in 2004 in order to support voluntary initiatives aimed at reforming the agricultural cooperative system. The purpose of the Amendment is to clarify the guidance functions of the Central Union of Agricultural Cooperatives, and to strengthen the sales business of agricultural cooperatives.

In future, agricultural cooperative organizations are expected to put these reform initiatives into practice, quickly reap concrete results from them and win the trust of farmers and consumers.
7 Use of IT in the Food, Agriculture and Rural Areas Sector

With the dramatic advance of information technology (IT), the structure of the socio-economy is rapidly changing. Having formulated the “e-Japan Strategy II” in July 2003, the government is now making efforts to reform the structure of the socio-economy using IT, and to materialize a society that will create new value.

Positive initiatives are also underway in the food, agriculture and rural areas sector, where there are expectations of more rational production and distribution, as well as the stimulation of rural areas through the introduction of IT.

The dramatic advance and spread of information technology (as typified by the Internet) has drastically reduced the time and expense involved in exchanging information, and has facilitated the transmission and receipt of information in highly concentrated form. These have yielded effects in a variety of fields, including the improved efficiency of society as a whole, reduced costs, increased added value, and changing lifestyles.

In the food, agriculture and rural areas sector, similarly, the introduction of IT is expected to have various effects, such as improved production, more rational distribution and the stimulation of rural areas.

In terms of the distribution of agricultural products, promoting the introduction of electronic transactions and a traceability system using wireless IC tags will facilitate the supply of safe and reassuring foods to consumers, as well as the rationalization of distribution and reduced costs, among other benefits. In fact, the cost reduction effect in all industries due to the introduction of wireless IC tags is estimated at 4.6 trillion yen\(^3\).

As for agricultural production, the use of IT makes it possible to quickly ascertain information needed for farming, such as changes in the weather and the state of pest outbreaks. Moreover, obtaining various information on market situations and consumption trends facilitates planned and efficient production and shipments.

Meanwhile, the use of the Geographic Information System (GIS) and the Global Positioning System (GPS) makes it possible to indicate and analyze information related to farmland and the growth of field crops on maps. This, in turn, improves productivity and enhances the quality and grading of agricultural products.

In rural areas, improvements to medical treatment and educational environments in remote areas are made possible by TV conference systems, home health checks using cable TV and wireless communications, and so on. The development of info-communication equipment, meanwhile, facilitates working formats not bound by location and time, and is expected to create new employment opportunities via Small Offices & Home Offices (SOHO). Furthermore, enhanced websites related to green tourism are expected to stimulate exchanges between urban and rural areas.

In this way, introducing information technology in the food, agriculture and rural areas sector is expected to have various effects (including the assurance of food safety and reliability and a stable supply of food, enhanced efficiency of distribution, and exchanges between urban and rural areas), and positive efforts to this end are being sought.

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\(^3\) Ministry of Public Management, Home Affairs, Posts and Telecommunications
**Basic Rationale on Promoting Information Technology (IT) in the Food, Agriculture and Rural Areas Sector**

### (Issues)

**Promoting IT in the agriculture, forestry and fisheries sector**

**Basic perspectives**
- Using IT to materialize the “Food” and “Agriculture” Revival Plan, etc.
- IT is a multi-purpose medium

**Delays in the use of IT**
- Delayed development of IT infrastructure
- Inadequate utilization systems of and electronic information
- Delay in information utilization technology

### (Priority policy sectors)

**Development of IT infrastructure**
- Promoting the development of high-speed Internet networks and others using various methods, in collaboration with relevant ministries

**Development of utilization systems, enhancement of information content**
- Support for corporate management
- Promotion of electronic transactions and provision of information to consumers
- Improved convenience in rural, mountainous and fishing areas
- Upgraded resource management

**Improvements to information utilization technology**
- Training for agricultural, forestry and fishery workers, securing and cultivating IT instruction personnel

### (Main sectors of the e-Japan strategy, etc.)

**Formation of an advanced info-communication network society**
- Materialization of advanced information network formation at the world’s highest level

**Promotion of education and learning and training of human resources**

**Promotion of electronic transactions, etc.**

**Digitization of the administration and promoting the use of IT in the public sector**

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**Examples of the use of IT in the food, agriculture and rural areas sector**

<table>
<thead>
<tr>
<th>Consumption</th>
<th>Distribution</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traceability system using electronic tags</td>
<td>Enhanced efficiency of collection and shipping work, selection of ideal shipping destinations</td>
<td>Environmental management of greenhouses</td>
</tr>
<tr>
<td>Information on production and distribution history given via in-store terminals, etc.</td>
<td>Understanding of consumer trends through sales management systems</td>
<td>Field supervision using monitoring terminals</td>
</tr>
</tbody>
</table>

**Guarantee of food safety and reassurance, enhanced efficiency of distribution, digitization of farm management, correction of information gap between cities and rural areas**

- **Rural, mountainous and fishing areas**
  - Transmission of local information using CATV
  - Home health management
  - IT seminars
  - Transmission of information to urban residents
Chapter I  Creating a System for the Stable Supply of Food (related to Food Policies)

Section 1  Promoting Efforts to Assure the Safety and Reliability of Food

(1) Developing a new administration with jurisdiction over food safety

A spate of incidents in recent years has markedly increased public anxiety over food. As public concern over the safety of food increases, the Basic Law on Food Safety was enacted in May 2003 to allay public anxiety and distrust concerning food safety, and to expedite the delivery of safe food to consumers. With the effectuation of this Law, a Food Safety Commission was set up in the Cabinet in July 2003 to assess the risks inherent in individual risk factors in food (namely chemicals and micro-organisms).

(2) The Ministry of Agriculture, Forestry and Fisheries (MAFF) has established an internal Food Safety & Consumer Affairs Bureau. Separated from the industrial promotion division, the Bureau has the task of uniformly handling consumer administration and risk management in the food sector. In the regions, meanwhile, “Regional Agricultural Administration Offices” have been established to undertake food risk management in the field. With this, a system of risk management combining the Ministry and the regions has been developed.

(3) Meanwhile, MAFF decided its “General Framework of Policies for Food Safety and Reassurance” in June 2003, as guidelines for responding accurately to the new food safety administration. Furthermore, a schedule indicating specific measures and the timing of implementation was also prepared, and specific initiatives are now being pursued in line with the schedule.
Fig. 1 Organizational Reforms in MAFF Food Administration

Ministry of Agriculture, Forestry and Fisheries

Food Safety & Consumer Affairs Bureau

Food Safety Commission

Ministry of Health, Labour and Welfare

Promotion of agriculture and food industry

General Food Policy Bureau

Agricultural Production Bureau

Forestry Agency

Fisheries Agency

Local organization

Regional Agricultural Administration Offices
Food Safety & Consumer Affairs Departments

Regional Agricultural Administration Offices
Food Safety & Consumer Affairs Departments

7 locations: Sendai, Saitama, Kanazawa, Nagoya, Kyoto, Okayama, Kumamoto

38 prefectural capitals (except Okinawa) in addition to the 7 on the left

(Note) Besides these, the Food Safety & Consumer Affairs Department of the Hokkaido Agriculture Office and the Food Safety & Consumer Affairs Division of the Agriculture, Forestry & Fisheries Department of the Okinawa General Bureau are also included.
(2) **Response to BSE and highly pathogenic avian influenza, etc.**

(1) In December 2003, a case of BSE infection was confirmed in the USA for the first time. The Japanese government immediately banned imports of beef and related products from the USA. Currently, discussions between Japan and the USA are underway, on the precondition of guaranteeing safety and reliability for consumers.

(2) In January 2004, the first Japanese incidence of highly pathogenic avian influenza in 79 years was confirmed. MAFF then executed necessary measures in line with the Animal Infectious Diseases Control Law and animal quarantine manuals, in collaboration with related institutions. With expansion of the area affected by highly pathogenic avian influenza, mainly in Asia, Japan has banned imports of chicken meat and related products from affected countries and regions.

(3) In October 2003, the first Japanese case of Koi Herpes Virus (KHV) was confirmed. The disease was then confirmed in 23 prefectures by the end of March 2004. MAFF is taking measures for disposal and disinfection of farmed fish to prevent the spread of KHV, while also promoting research on quarantine measures.

(3) **Specific initiatives aimed at securing the safety and reliability of food**

(1) Many consumers feel anxiety about the safety of food at every stage of the food supply. To ensure the safety of agricultural products, MAFF is rigorously enforcing the proper use of agricultural chemicals, fodder, and other production materials. In July 2003, the containers or packaging of certain agricultural chemicals manufactured and sold in Japan were judged to be falsely labeled. The manufacturers were instructed to take steps such as recalling chemicals that were already at the distribution stage, at their own expense.

(2) To ensure that measures to prevent the spread of BSE and secure trust in the safety of beef are implemented correctly, the Law for Special Measures Concerning the Management and Relay of Information for Individual Identification of Cattle (Beef Traceability Law) at each stage of production was enforced from December 2003. Among other measures, the Law made it mandatory to attach ear tags, and to register the date of birth, gender, and breed of all cattle born. At the distribution stage, beef distributors and others were obliged, from December 2004 onwards, to label beef with individual identification numbers, and to keep registers recording the date, supplier, weight and other details of all beef purchased by them.

(3) For other foods, similarly, producers and distributors are introducing voluntary traceability systems, whereby information on production and distribution history is attached to products and provided to consumers. MAFF provides support such as in setting up such systems. Introducing these systems is important, not only because it provides opportunities to ensure reliability by creating visible connections and to give brand image to domestic agricultural products, but also because it encourages awareness of reform on the part of food-related businesses and producers.

(4) To gain public trust in food labeling, it is important that producers and businesses provide correct and appropriate information. The Joint Conference on Food Labeling (co-hosted by MAFF and the Ministry of Health, Labour and Welfare) is deliberating food-labeling rules to make them clearer and simpler. In July 2003, terms of “date of minimum durability” based on the Law Concerning Standardization and Proper Labelling of Agricultural and Forestry Products (the JAS Law) and the Food Sanitation Law were unified as “shoumi-kigen” dates.
### Table 1  Incidences of BSE and Highly Pathogenic Avian Influenza, etc.

<table>
<thead>
<tr>
<th>Year</th>
<th>BSE</th>
<th>High-Pathogen Avian Influenza</th>
</tr>
</thead>
</table>
| 2001 | September: 1st incidence in Japan  
October: Start of all-animal testing  
November: 2nd and 3rd incidences in Japan | May: Incidences in Hong Kong & Macao, ban on imports of chicken meat, etc., from there |
| 2002 | May: 4th incidence in Japan  
August: 5th incidence in Japan | |
| 2003 | January: 6th and 7th incidences in Japan  
May: 1st incidence in Canada, ban on imports of Canadian beef, etc.  
October: 8th incidence in Japan (atypical)  
November: 9th incidence in Japan (21 months old)  
December: 1st incidence in USA, ban on imports of US beef, etc. | March-May: Incidences in Netherlands, Belgium and Germany, ban on imports of chicken meat, etc., from there  
December: Incidence in South Korea, ban on imports of chicken meat, etc., from there |
| 2004 | January: Talks on resumption of US exports, field study teams sent to USA and Canada, beef supply-demand study teams sent to Australia and New Zealand  
February: 10th incidence in Japan  
March: 11th incidence in Japan (dead cattle) | January: 1st incidence in Japan (Yamaguchi Prefecture) in 79 years  
Incidences in Vietnam, Thailand, China, and elsewhere, ban on imports of chicken meat, etc., from there  
February: Incidence in USA, ban on imports of chicken meat, etc., Incidences in Oita and Kyoto Prefectures  
March: Incidence in Kyoto Prefecture  
Incidence in Canada, ban on imports of chicken meat, etc., Announcement “To the Japanese People (Concerning Avian Influenza)”  
Meeting of Cabinet Ministers Relevant to Bird Flu Countermeasures  
Incidence in Netherlands, ban on imports of chicken meat, etc., from there |

### Fig. 2  Consumer Concerns at Different Stages of the Food Supply

![Consumer Concerns at Different Stages of the Food Supply Diagram](image-url)
(5) As consumers become increasingly cautious when purchasing foods, due to repeated food incidents, it is important that food companies rigorously comply with laws and ordinances (“compliance”) to prevent such incidents from occurring. Everyone connected with the supply of foodstuffs should reaffirm the importance of compliance and securing consumer trust, and make efforts to supply safe and trustworthy foods.

(4) **Promoting risk communication**

(1) Many consumers have expressed dissatisfaction with risk communication offered by the administration so far. It has been pointed out, in particular, that information on the BSE problem was not provided quickly or accurately enough by the administration.

(2) MAFF holds regular discussion meetings with consumers and others, provides information via its Internet website and other media, has set up consumer advice counters in its Regional Agricultural Administration Offices, and holds opinion exchange meetings on each individual measure over which there is a high level of consumer concern.
Fig. 3  Evaluation of Risk Communication by the Administration To Date

Source: Food Safety Commission

Note: “Examples of failure to communicate appropriately” were gathered from respondents who replied that risk communication “Was not communicated at all” or “Was hardly communicated at all”, as judged and categorized from the content of voluntary statements.
Section 2 Trends in Food Self-Sufficiency and Food Consumption

(1) Trends in the food self-sufficiency ratio

a Japan’s food self-sufficiency ratio

(1) Japan’s food self-sufficiency ratio is in a long-term downward trend. It fell from 73% in FY1965 to 40% in FY2002, and is at the lowest level of all leading industrialized nations.

(2) The main reasons for the decline in Japan’s food self-sufficiency are changes in the diet due to a fall in the consumption of rice (a self-sufficient commodity), and increased consumption of livestock products and fats, for which the raw materials needed for production have to come from overseas sources.

(3) Food is most fundamental and indispensable to the maintenance of human life and health, and securing a stable supply of food is an important responsibility of the government. Setting a target for food self-sufficiency has an important significance as a guideline for people’s participation, across both aspects of food consumption and agricultural production. The food self-sufficiency target has been set at 45% on a calorie supply basis, as a level that is achievable if various problems with food consumption and agricultural production can be solved.

b Trends in food self-sufficiency after formulation of the Basic Plan

(1) Since FY1998, the consumption of rice (a commodity with a high degree of self-sufficiency) has fallen, while consumption of meats and fats with their low self-sufficiency ratios has continued to increase. Nevertheless, the food self-sufficiency ratio on a calorie supply basis has been maintained at 40% for 5 years in succession, thanks to expanded production of wheat and soybeans.

(2) To attain the food self-sufficiency target, efforts in both consumption and production are important. To this end, we will require positive efforts aimed at understanding and practicing Dietary Guidelines, promoting food education as a civic movement to create awareness of the importance of diets, and solving problems in improving productivity and quality for each commodity indicated in the Basic Plan on Food, Agriculture and Rural Areas.

(3) To secure a stable food supply, it is important to maintain and expand domestic agricultural production and food supply capacity, by securing and effectively using farmland and agricultural water resources, and by fostering and securing agricultural workforces, which are crucial elements of production.
Fig. 4  Trends in Japan’s Food Self-Sufficiency Ratio

Fig. 5  Trends in Food Self-Sufficiency Ratio (Calorie Basis) in Other Countries

Fig. 6  Rate of Change in Supplied Calories and Domestically Produced Calories (1997-2002)
(2) Trends in food consumption structure

(1) The constant-price food consumption expenditure (food spending) per capita of non-farm households has been falling more or less consistently since 1997. Although some items, such as pre-cooked foods, increased in the April-December 2003 period, food spending overall fell by 2.2% from the previous year.

(2) In terms of food spending per capita by age of householder, fish and shellfish, vegetables, seaweed and fruit account for higher proportions of food spending among higher age brackets, while consumers in younger age brackets tend to spend more on eating-out and eating meat. Spending on grains and pre-cooked food tends to account for about the same proportions, regardless of age. On the other hand, eating-out accounts for 40% of food spending in single households.

(3) While food spending is in a declining trend, the proportions spent on eating-out and pre-cooked foods are increasing, and expenditure on food prepared outside the home accounts for 30% of all food spending. The purchasing frequency of pre-cooked foods is high in households with 2 or more persons, while both the purchasing frequency and the purchase unit price of eating-out are high for single households.

(4) The advancing “externalization” of our diet in recent years is supported by growth in the pre-cooked food industry. This externalization is influenced by a number of factors, including changes in household composition, improved living standards, the social advancement of women, and so on.
Fig. 7  Composition of Food & Drink Expenditure by Age of Householder (2003)

Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications

Fig. 8  Frequency & Price of Precooked Foods and Eating-Out
(3) The current situation of dietary habits and promotion of Food Education

(1) In Japan, the “Japanese dietary Pattern” was formed around the mid 1970s. It is characterized by a healthy, diverse, and nutritionally balanced diet with rice as the staple food. However, there have been concerns about the tendency to intake excess fat and the habit of skipping meals especially for young people.

(2) Among young women, there is a growing wish to maintain slim physiques that differ from their ideal body weight. Many are underweight, and there is a considerable trend towards deficiency in essential nutrients such as iron and calcium. The number of students who have an eating disorder such as anorexia and hyperplasia is increasing in junior and senior high schools.

(3) Public concern over food encourages the “Food Consumption in Production Area” and “Slow Food” movements in various regions of the county. Recently, the movement of using regional agricultural products for school meals is activated. Not only do such efforts lead to an improvement in the food self-sufficiency rate, but they also help to reduce the burden on the environment, in that they reduce emissions of carbon dioxide associated with the transportation. Therefore, those efforts are continuously expected by the all regional persons.

(4) Public awareness of the “Japan’s Dietary Guidelines” drawn up in March 2003 remains at a low level of only 25.1%. Considering the current situation of the dietary habitat in Japan, it is important that we promote “Food Education” that will contribute to improve people’s physical and mental health and form “Rich Humanities”, by cultivating appropriate abilities of choosing diet and promoting better dietary patterns throughout all people’s lives. In the future, the related institutions need to jointly promote the Food Education as a national campaign.
Fig. 9  PFC Supplied Calorie Composition in Various Countries

Western countries

<table>
<thead>
<tr>
<th>Country</th>
<th>P: Proteins</th>
<th>F: Fats</th>
<th>C: Carbohydrates</th>
<th>kcal</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>11.6</td>
<td>43.8</td>
<td>44.5</td>
<td>(3,457)</td>
</tr>
<tr>
<td>UK</td>
<td>12.2</td>
<td>40.0</td>
<td>47.5</td>
<td>(3,185)</td>
</tr>
<tr>
<td>USA</td>
<td>12.6</td>
<td>38.0</td>
<td>49.4</td>
<td>(3,613)</td>
</tr>
<tr>
<td>Japan (2002)</td>
<td>11.8</td>
<td>29.0</td>
<td>59.2</td>
<td>(2,598)</td>
</tr>
<tr>
<td>Japan (1985)</td>
<td>22.2</td>
<td>26.1</td>
<td>51.7</td>
<td>(2,596)</td>
</tr>
<tr>
<td>Japan (1975)</td>
<td>22.2</td>
<td>22.8</td>
<td>54.4</td>
<td>(2,517)</td>
</tr>
<tr>
<td>China (2001)</td>
<td>11.8</td>
<td>26.3</td>
<td>61.9</td>
<td>(2,891)</td>
</tr>
<tr>
<td>China (1985)</td>
<td>15.2</td>
<td>21.7</td>
<td>63.1</td>
<td>(2,575)</td>
</tr>
<tr>
<td>China (1975)</td>
<td>11.0</td>
<td>11.0</td>
<td>78.0</td>
<td>(2,069)</td>
</tr>
<tr>
<td>India</td>
<td>9.4</td>
<td>18.8</td>
<td>71.8</td>
<td>(2,476)</td>
</tr>
<tr>
<td>Thailand</td>
<td>9.4</td>
<td>18.7</td>
<td>71.9</td>
<td>(2,354)</td>
</tr>
<tr>
<td>Vietnam</td>
<td>9.4</td>
<td>14.5</td>
<td>76.1</td>
<td>(2,515)</td>
</tr>
</tbody>
</table>

Asian countries

<table>
<thead>
<tr>
<th>Country</th>
<th>P: Proteins</th>
<th>F: Fats</th>
<th>C: Carbohydrates</th>
<th>kcal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>32.2</td>
<td>38.0</td>
<td>30.8</td>
<td>(3,392)</td>
</tr>
<tr>
<td>China</td>
<td>35.2</td>
<td>28.0</td>
<td>37.8</td>
<td>(2,924)</td>
</tr>
<tr>
<td>India</td>
<td>27.2</td>
<td>30.8</td>
<td>42.0</td>
<td>(2,378)</td>
</tr>
<tr>
<td>Thailand</td>
<td>29.2</td>
<td>32.0</td>
<td>40.7</td>
<td>(2,385)</td>
</tr>
<tr>
<td>Vietnam</td>
<td>27.2</td>
<td>32.0</td>
<td>40.7</td>
<td>(2,385)</td>
</tr>
</tbody>
</table>

Notes: 1) Figures are for 2001 unless specified.
2) Figures in brackets on the right are supplied calories per capita.
3) Supplied calories do not include alcoholic beverages.

Fig. 10  Proportion of People that Skip Meals

Source: Ministry of Health, Labour and Welfare

Fig. 11  Awareness of “Japan's Dietary Guidelines”

Source: The Information Service Center for Food and Foodways
(4) Trends in food industries

(1) The agriculture and food industries that supply our foods occupy an important position, accounting for 10% of Japan’s gross domestic product. Japan’s food consumption expenditure starts with 15.3 trillion yen of edible agricultural and fishery products (domestic produce 12.1 trillion yen, imports 3.2 trillion yen), swelling to a final value of 80.3 trillion yen through the food manufacturing, food distribution, and eating-out industries.

(2) To achieve a stable, efficient supply of agricultural products, important tasks will be to promote structural reforms of agriculture while also attempting to cut costs in related manufacturing industries and food distribution.

(3) For wholesale markets, we need to ease trading regulations, promote proper quality management and smoother reorganization, and shift to a safe, reliable and efficient system of distribution that will meet the expectations of both producers and consumers.

(4) The market scale of the eating-out industry has been in a decreasing trend since 1998, reflecting harsh economic conditions. Conversely, the market scale for “bento” lunchboxes, “onigiri” rice buns, “sozai” side dishes, and other precooked foods that can be eaten as they are at home or taken to work, school or elsewhere is in an increasing trend, though the pace of growth is slowing.

(5) It is thought that, if consumer needs concerning safety and reliability can be addressed accurately, sales routes of domestic agricultural products will also expand. It is important that we continue to positively promote links between agriculture and the food industry.
Fig. 12  Flow of Food & Drink Expenditure until Final Consumption

Notes 1) The table shows the flow of food & drink expenditure up to the final consumption value of ¥80.3 trillion.
2) Circled figures are associated distribution costs (trading margin and freight charges).
Section 3  World Supply & Demand in Agricultural Products and Trends in Agricultural Trade Negotiations

(1) International trends in grain supply & demand, etc., and Japan’s initiatives for international cooperation

a  International trends in grain supply & demand, etc.

(1) After repeated cycles of oversupply and shortage, the world’s grain supply and demand was relaxed in the second half of the 1990’s. It is now in a tightening trend, however, due to droughts in major producing countries in 2002 and 2003. Furthermore, with elements of instability in the form of exhausted water resources, desertification, and abnormal weather patterns, the possibility has been pointed out that the world supply and demand in main grains and soybeans will be tight over the medium to long term.

(2) The world’s agricultural trade structure has changed greatly since the Uruguay Round agricultural agreement. Japan, China, and South Korea have become more dependent on imports of agricultural products, and the USA, Canada, Brazil, and Australia on exports.

(3) In Asia, home of half of the world’s population, imports of agricultural products are increasing due to population growth and economic recovery or growth. Types of imported agricultural products have also become more diverse, in line with economic growth and dietary changes.

b  Trends in China

(1) In China, there is a progressive increase and diversification of food consumption as a result of remarkable economic growth. This trend could progress further in future, due to economic growth in rural areas. On the other hand, with increasing constraints on the ability to secure farmland and water resources accompanying economic growth, securing a stable supply of food for the people (20% of the world’s population) is now an important task.

(2) China is the world’s largest grain producer, and was responsible for producing 20% of the world’s grain in 2001. Under the impact of droughts and policies for structural adjustment of agricultural production, however, grain production volume has decreased dramatically since 2000. Therefore, domestic stocks of maize and other grain have fallen considerably.

(3) Due to expanding domestic demand for oil soybeans and soybean meal, China’s imports of soybeans are increasing dramatically. In 2001, it was the world's largest importer, accounting for 30% of all soybean imports. China now has a growing impact on supply and demand for the world’s main grains and soybeans.
Fig. 13  Trends in Year-End Cereal Inventories

Source: US Department of Agriculture

Fig. 14  Changes in Agricultural Product Trade Balance by Country

Source: FAO

Fig. 15  Trends in China’s Cereal Production, Yields and Arable Land Area (1961 = 100)

Source: FAO
c Japan’s initiatives for international cooperation

(1) There are about 800 million undernourished people in developing countries, equivalent to one in six of these countries’ population. The World Food Summit, held in 1996, set the target of halving this undernourished population to 400 million by the year 2015. However, not enough progress has been made in achieving this reduction so far.

(2) To reduce the undernourished population and promote increased food production, we need to support initiatives aimed at improving agricultural productivity and achieving sustainable agriculture in developing countries. To this end, Japan is positively providing Official Development Assistance (ODA) to the agricultural sector. When providing ODA, it is important that we make comprehensive judgments on the aid requirement in the developing country, the state of its socio-economy, and the bilateral relationship, in line with concepts and principles set out in the government’s ODA Guidelines.

(2) Trends in Japan’s agricultural trade

(1) Japan is the world’s largest net importer of agricultural products, and its import sources tend to be concentrated in specific countries. Therefore, the structure of Japan’s food supply and demand is easily affected by changes in crop types and cropping trends in those countries.

(2) Among Japan’s imports of agricultural products, the proportions of high added-value processed products and fresh products are increasing, reflecting the diversification and increasing sophistication of our diet. China is increasing its exports of highly processed agricultural products and fresh products to Japan, taking advantage of cheap labor and its geographical proximity to Japan.

(3) Backed by increased purchasing power associated with economic growth, the brand image of Japanese high-quality agricultural products is rising in Asian countries. Furthermore, overseas demand for Japanese agricultural products is expanding, due to the high evaluation of Japanese foods as health foods throughout the world and the abolition of import quotas following China and Taiwan’s membership in the WTO in 2001 and 2002, respectively.

(4) When promoting exports of agricultural products, it is important that we make efforts to secure the image of Japanese-produced brands, develop export quarantine conditions corresponding to quarantine systems in partner countries, and protect plant species grown in Japan, in tandem with efforts to develop new markets.

Feature: International Year of Rice 2004

As the staple diet of more than half the world’s population, rice is expected to play a major role in reducing undernourished populations and eradicating poverty. To increase this kind of awareness, the United Nations has dubbed 2004 the “International Year of Rice”. In response, MAFF has set up an “International Year of Rice Promotion HQ”, and is also implementing positive initiatives in collaboration with the Food and Agriculture Organization of the United Nations (FAO), a central actor in the International Year of Rice.
Fig. 16  Changes in Value of Agricultural Imports by Degree of Processing (1992 = 100)

Fig. 17  Trends in Export Value of Japanese Fresh Fruit, Fresh Vegetables, and Green Tea

Source: Ministry of Finance
(3) **Agricultural policy trends in other countries**

(1) In other countries, reforms of agricultural policies are being pursued in line with trends in WTO negotiations. As a result, there is now an ongoing transition from direct subsidy payments based on price support policies as well as production output and planted area in a given year, which are subject to reduction in the WTO Agreement on Agriculture, to income support policies with a focus on farm management and direct payments separated from production elements in a given year.

(2) In the EU, a system of single direct payments, based on past payment history, is due to be introduced from 2005 onwards, in line with the Common Agricultural Policy (CAP) reform in June 2003. This will replace the existing system of direct payments for individual commodities based on production elements for a given year.

(3) In the USA, the Counter-Cyclical Payments program was created in the Farm Security and Rural Investment Act of May 2002, in addition to the existing systems of price support loans and direct fixed payments to farms. At the same time, agricultural environment policies were greatly amplified.
Fig. 18  Levels of AMS (Aggregate Measurement of Support) in Major Countries

- Japan: 39,729 million yen (19% of commitment level)
- USA: 20,587 million yen (88% of commitment level)
- EU: 81,605 million yen (71% of commitment level)
(4) Trends in WTO agricultural negotiations

(1) Japan is steadily fulfilling its commitment to reduce its AMS (Aggregate Measurement of Support) in line with the Uruguay Round agricultural agreement. AMS reductions in the USA and Europe, however, are lagging behind that of Japan. The average tariff rate for Japan’s agricultural products is 12%, considerably lower than those of the EU (20%) and Argentina (33%), which are major exporters.

(2) In the WTO agricultural negotiations that started in March 2003, Japan’s position is that non-trade concerns (such as the multi-functional roles of agriculture and food security) should be fully taken into account, based on a philosophy of “the coexistence of various types of agriculture”.

(3) Although the deadline for establishing modalities was the end of March 2003, negotiations were still continuing after April. This was because exporting countries remained intransigently bound to excessive demands, such as vast reductions in tariffs. A US/EU Joint Paper, presented in August, and the subsequent Draft Ministerial Text, were problematic in content, in that they included the setting of tariff capping and expansion of tariff quotas.

(4) At the 5th WTO Ministerial Conference held in Cancun, Mexico, in September 2003, Japan joined with Switzerland, Norway, South Korea and other countries that shared a similar position to submit a Joint Proposal by a group of ten countries (G10). In the revised Draft Ministerial Text, a provision was added, albeit in brackets, to the effect that some products would be treated as exceptions to upper tariff capping in view of non-trade concerns. The Ministerial Conference closed without any agreement being reached (including agricultural negotiations). In March 2004, a WTO Committee on Agriculture Special Session was convened to resume agricultural negotiations. The participating countries reached agreement on the principle of aiming for a framework agreement by July 2004. In future, negotiations need to be approached such that Japan’s position, based on the philosophy of the coexistence of various types of agriculture, can be fully reflected in the negotiation results.

(5) Moreover, while negotiations via GATT and WTO in the past have been led by major industrialized nations, the 5th Ministerial Conference differed from previous agricultural negotiations in that developing countries like Brazil and India had a greater say in the proceedings.
### Table 2  Past Developments in WTO Agricultural Negotiations

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>March</td>
<td>Start of Agricultural Negotiations</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>Japanese proposal submitted</td>
</tr>
<tr>
<td>2001</td>
<td>November</td>
<td>Start of New Round (Doha, Qatar)</td>
</tr>
<tr>
<td>2002</td>
<td>June</td>
<td>Ministerial Conference on Non-Trade Concerns (chaired by Japan, 54 countries)</td>
</tr>
<tr>
<td></td>
<td>July</td>
<td>Quint Agriculture Ministerial Meeting (Nara)</td>
</tr>
<tr>
<td></td>
<td>November</td>
<td>Japan submits proposal on modalities</td>
</tr>
<tr>
<td>2003</td>
<td>February</td>
<td>Chairman of Committee on Agriculture presents 1st draft of modalities</td>
</tr>
<tr>
<td></td>
<td>March</td>
<td>No establishment of modalities</td>
</tr>
<tr>
<td></td>
<td>June</td>
<td>Informal Ministerial Meeting (Egypt)</td>
</tr>
<tr>
<td></td>
<td>July</td>
<td>Informal Ministerial Meeting (Montreal)</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>USA, Europe submit joint proposal</td>
</tr>
<tr>
<td></td>
<td>September</td>
<td>Japan, Switzerland, developing countries, and others submit proposals</td>
</tr>
<tr>
<td></td>
<td>September</td>
<td>General Council Chairperson presents draft text for Ministerial Conference</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>WTO General Council Meeting</td>
</tr>
<tr>
<td>2004</td>
<td>February</td>
<td>WTO General Council Meeting</td>
</tr>
<tr>
<td></td>
<td>March</td>
<td>WTO Committee on Agriculture Special Session</td>
</tr>
</tbody>
</table>

### Table 3  Comparison of the Joint Proposal by the Group of 10 Countries (including Japan) and the Revised Draft Text for the Ministerial Conference

<table>
<thead>
<tr>
<th></th>
<th>Revised Draft Text for the Ministerial Conference</th>
<th>Joint Proposal by the Group of 10 Countries (G10, including Japan) (Proposed changes to the Draft Text for the Ministerial Conference)</th>
</tr>
</thead>
</table>
| Tariff reduction formula | “Blend” Formula  
(1) Important commodity group  
Average [ ] %, minimum [ ] % reduction  
Combination of tariff reduction and tariff quotas  
(2) Group 2  
Swiss formula using coefficient [ ]  
(3) Group 3: no tariffs | “Blend” Formula  
(1) Important commodity group  
Average [ ] %, minimum [ ] % reduction  
No expansion of tariff quotas  
(2) Group 2  
Swiss formula using coefficient [ ]  
(3) Group 3: no tariffs  
(Note) There is room for separate negotiation on commitments to expand tariff quotas, as distinct from the “Blend Formula”, with a view to maintaining overall balance. |
| Upper limit on tariffs | - Upper tariff limit of [ ] % set.  
If not reduced to the upper limit, additional market access should be secured through negotiation on individual commodities.  
“Exceptional treatment of a very limited number of products to be designated on the basis of non-trade concerns.” | - Oppose setting of upper tariff limit |
| Preferential measures for developing countries | - Low rate of tariff reduction and long period of implementation  
- Setting of “Special Products” that would be exempt from commitments on tariff reductions and tariff quotas | - Low rate of tariff reduction and long period of implementation (no opposition to setting Special Products) |

Note: The Group of 10 Countries (G10) consists of Bulgaria, Taiwan, Iceland, Israel, Japan, South Korea, Liechtenstein, Norway, Switzerland, and Mauritius.
(5) **Initiatives towards FTAs, etc.**

(1) In recent years, there has been an increase in Free Trade Agreements (FTAs), which abolish tariffs exclusively between a limited number of countries. Japan’s basic stance is to maintain and strengthen systems of multilateral trade via WTO, and to positively promote FTAs.

(2) In January 2002, Japan signed the “Japan-Singapore New Age Economic Partnership Agreement” as its first such agreement, which came into force in November 2002. In the same month, Japan started government-level FTA talks with Mexico, leading to a virtual agreement at the ministerial level in March 2004.

(3) Besides Mexico, Japan is currently in government-level negotiations on FTAs with South Korea, Thailand, Malaysia and the Philippines. With South Korea, in particular, negotiations are expected to reach a virtual agreement before the end of 2005.

(4) When promoting FTAs, we will approach negotiations with full attention to the multifunctionality of agriculture, forestry and fisheries and food security, as well as the progress of structural reforms in agriculture, forestry and fisheries in Japan.
Table 4  State of FTA Negotiation with Other Countries & Regions

<table>
<thead>
<tr>
<th>Partner country</th>
<th>Preliminary study</th>
<th>Cross-sector research group</th>
<th>Government-level negotiations</th>
<th>Agreement signed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>Feb. 1999 - Apr.00</td>
<td>Sept.2001 - July 02</td>
<td>Nov.2002 -</td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td>Mar. 2001 - Jan.02</td>
<td>July 2002 - Oct.03</td>
<td>Dec.2003 -</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>Sept. 2002 - May 03</td>
<td>July 2003 - Nov.03</td>
<td>Feb. 2004 -</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>May 2003 - July 03</td>
<td>Sept.2003 - Nov.03</td>
<td>Jan.2004 -</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>Oct.2002 - July 03</td>
<td>Sept.2003 - Nov.03</td>
<td>Feb. 2004 -</td>
<td></td>
</tr>
<tr>
<td>Taiwan</td>
<td>June 2002 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>Sept.2003 -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: With ASEAN, Expert Meetings were held in January-November 2002, and discussions by the Japan-ASEAN committee started in March 2003.
Chapter II  Sustainable Development of Agriculture and Acceleration of Structural Reform (related to Agricultural Policies)

Section 1  Trends in Agricultural Economy

(1)  Recent trends in agricultural production

(1)  Japan’s total agricultural output in 2002 was about 8.9 trillion yen. Although this was 0.5% more than in the previous year, thanks to the increased production value of vegetables and livestock products, it was still about 2.9 trillion yen (24%) lower than the peak in 1984. In recent years, in addition to a huge fall in rice, other major products are also in a decreasing trend.

(2)  Agricultural production (volume) in 2002 fell by 1.1% from the previous year, with increases in wheat, barley and livestock products cancelled out by decreases in rice, vegetables and fruit. In 2003, the whole country was affected by low temperatures and a lack of sunshine from around mid-May to October, causing damage with an estimated value of around 390 billion yen over an area of 2,338,000 hectares for all field crops.
Fig. 19  Year-on-Year Change in Total Agricultural Output and Trends in Degree of Contribution by Commodity (3-Year Moving Average)

Note: 1) The year given is the final year in the 3-year moving average.
2) Figures for 2002 are approximate.

Fig. 20  Damage to Field Crops by Low Temperatures, etc., after mid-May 2003
(3) In recent years, the downward trend in producers’ prices for agricultural products has been intensified due to a fall in rice prices, competition with imported products (mainly for trade demand), and other factors. As for food prices at the consumer stage, conversely, prices for fresh products have fallen by about the same degree as producers’ prices, while prices of non-fresh products have had a narrower range of price fluctuation than fresh products, tending to remain more or less even.

(4) The agricultural product producers’ price index in 2003 (estimate) rose by 6.5%, with increases in prices for rice and vegetables under the impact of cold damage, etc. The agricultural production materials price index in 2003 (estimate) rose by 0.7% due to increases in fodder prices.

(5) The terms-of-trade index for agriculture, which shows the relationship between agricultural product prices and production material prices, is in a worsening trend. Costs need to be reduced by rationalizing the distribution of agricultural production materials.

(2) Trends in farm management

(1) In 2002, agricultural income per commercial farm household was 1,021,000 yen (down 1.2% from the previous year). Since non-agricultural income also fell greatly (down by 4.6%), total farm household income fell for the 6th successive year since 1997 to 7,842,00 yen (down by 2.2%).

(2) In farm households that increased their agricultural income, hired labor increased and the cultivated land under management expanded (mainly through leasing). On the other hand, agricultural fixed capital decreased, mainly in farm machinery, while the variable expenses of fertilizer and fodder costs decreased. In this way, farms that have increased their agricultural income are making management efforts such as curbing farm management expenses through appropriate agricultural investment, etc.
Table 5  Changes in Farm Household Economy in Terms of Trends in Agricultural Income (1997-2002)

<table>
<thead>
<tr>
<th>Farms with increased income</th>
<th>Farms with decreased income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002 figures</td>
<td>2002 figures</td>
</tr>
<tr>
<td>Compared to 1997</td>
<td>Compared to 1997</td>
</tr>
<tr>
<td>Rate of increase/decrease</td>
<td>Rate of increase/decrease</td>
</tr>
<tr>
<td>(-) (%)</td>
<td>(-) (%)</td>
</tr>
</tbody>
</table>

Agricultural gross income thousand yen 5,054.8 16.8 3,511.9 -24.7
Agricultural expenditure thousand yen 3,075.7 -10.0 2,644.9 -1.9
Of which, feed and fertilizer costs thousand yen 635.9 -8.6 428.7 -15.5
Depreciation thousand yen 581.3 -28.3 611.0 15.8
Agricultural income thousand yen 1,979.1 117.1 867.0 -55.9
Agricultural income ratio % 39.2 18.1 24.7 -17.5
Monthly average household size persons 4.22 -9.1 4.18 -8.3
Employees in family farming persons 1.30 4.8 1.17 -11.4
Hours of labor on own farm hours 2,190 0.9 1,993 -14.1
Of which, family members hours 2,031 -0.8 1,870 -14.8
Hired labor hours 145 36.8 118 -0.8
Cultivated land area under management acres 204.3 3.8 192.1 -4.5
Total planted area acres 196.4 6.6 173.4 -8.2
Agricultural fixed capital thousand yen 5,752.5 -11.5 4,917.7 3.1
Of which, farm machinery thousand yen 1,931.8 -17.7 1,964.3 8.6

Notes: 1) Cultivated land area under management in 1997 includes farms with 1 ha or more.
2) Farms with an increase of 10% or more in agricultural income in 1997-2002 are included in “Farms with increased income”, and those with a decrease of 10% or more in “Farms with decreased income”.

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(3) Trends in numbers of farm households and agricultural labor force, etc.

a Trends in numbers of farm households and farmer populations, etc.

The total number of farm households in 2003 was 2.98 million, falling below 3 million for the first time. There were 2.21 million commercial farms. While the population mainly engaged in farming and the number of core persons mainly engaged in farming have decreased, the level of dependence on elderly persons in agricultural production rose further. In future, with the full retirement of workers born in the 1926-1935 period, the decrease in farm workers is expected to accelerate further.

b Trends in persons newly engaged in farming

(1) Persons newly engaged in farming have been increasing in recently years, totaling 80,000 in 2002. Of these, however, only 12,000 were young people newly engaged in farming (the total of new graduates mainly engaged in farming, plus workers from other industries aged 39 or less), who are expected to shoulder agricultural production in future.

(2) In recent years, the routes for engagement in farming have become more diverse. For example, persons engaged in agricultural corporations have increased. To encourage new engagement in farming broadly from both inside and outside agriculture in future, it will be important to offer finely tuned support in response to these diverse channels of engagement.

c Trends in female farmers

Women account for 60% of the population mainly engaged in farming, and make a huge contribution to the maintenance of agriculture, rural society, and so on. In future, we will need to offer training to improve women’s abilities and develop a system of support for domestic work and childcare, to further encourage participation by women in farm management.
Fig. 22  Number of Core Persons Mainly Engaged in Farming in Yearly Age Divisions (2003)

Notes: 1) Figures are on a commercial farm basis.
2) “Core Persons Mainly Engaged in Farming” are the principal working members of families mainly engaged in farming.

Table 6  Trends in Workers Newly Engaged in Farming

<table>
<thead>
<tr>
<th></th>
<th>Workers newly engaged in farming</th>
<th>Of which, new graduates (1)</th>
<th>Of which, workers from other industries (2)</th>
<th>Of which, persons aged 39 (2)</th>
<th>Young people newly engaged in farming (1)+(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(thousand persons)</td>
<td>(thousand persons)</td>
<td>(thousand persons)</td>
<td>(thousand persons)</td>
<td>(thousand persons)</td>
</tr>
<tr>
<td>1985</td>
<td>93.9</td>
<td>4.8</td>
<td>89.1</td>
<td>15.7</td>
<td>20.5</td>
</tr>
<tr>
<td>1990</td>
<td>15.7</td>
<td>1.8</td>
<td>13.9</td>
<td>2.5</td>
<td>4.3</td>
</tr>
<tr>
<td>1995</td>
<td>48.0</td>
<td>1.8</td>
<td>46.2</td>
<td>5.8</td>
<td>7.6</td>
</tr>
<tr>
<td>2000</td>
<td>77.1</td>
<td>2.1</td>
<td>75.0</td>
<td>9.5</td>
<td>11.6</td>
</tr>
<tr>
<td>2001</td>
<td>79.5</td>
<td>2.1</td>
<td>77.4</td>
<td>9.6</td>
<td>11.7</td>
</tr>
<tr>
<td>2002</td>
<td>79.8</td>
<td>2.2</td>
<td>77.6</td>
<td>9.7</td>
<td>11.9</td>
</tr>
</tbody>
</table>

Notes: 1) “New graduates (newly engaged in farming)” are new graduates who are mainly self-employed in farming.
2) “Workers from other industries (newly engaged in farming)” are persons whose employment circumstances changed from “mainly non-agricultural” to “mainly agricultural” due to unemployment, etc. (whether remaining in or returning to farm areas).
Section 2  Promoting the Structural Reform of Agriculture

(1) Training and securing a variety of motivated farmers

a  Trends in certified farmers

(1) There were 171,746 certified farmers (including 6,444 corporations) at the end of March 2003. With an increase of 5.5% from the previous year, the number is steadily rising. It has been pointed out, however, that there is not enough consistency in the application of certification standards by different municipalities, and that there is not enough follow-up after certification in the current system of certified farmers. In June 2003, therefore, MAFF presented guidelines on improving the application of the system to prefectural and municipal authorities. These included the principle of accelerating the certification of farmers in tandem with reforms of rice policies.

(2) The agricultural incomes of certified farmers are actually increasing, despite a deteriorating business environment accompanying the decline in agricultural product prices in recent years. The labor hours of certified farmers have also decreased somewhat, but are still far from the target levels.

b  Trends in corporations engaged in farming

There were about 15,000 corporations engaged in farming (including about 7,000 agricultural production legal persons) as of January 2003, continuing the steady increases of recent years. In September 2003, the government enacted the Amended Agricultural Management Framework Reinforcement Law to promote a diversification of business and expansion of sales routes.
Fig. 23  Attainment of Targets for Agricultural Income and Labor Hours in Farm Improvement Plans

(Agricultural income)

When first certified

- Less than 5 million yen
- 5-10 million yen
- 10-15 million yen
- 15-20 million yen
- More than 20 million yen

At end of certification period

- Less than 5 million yen
- 5-10 million yen
- 10-15 million yen
- 15-20 million yen
- More than 20 million yen

Improvement plan target

- Less than 5 million yen
- 5-10 million yen
- 10-15 million yen
- 15-20 million yen
- More than 20 million yen

(Labor hours)

When first certified

- Less than 1700 hours
- 1700-2100 hours
- 2100-2300 hours
- 2300-2500 hours
- More than 2500 hours

At end of certification period

- Less than 1700 hours
- 1700-2100 hours
- 2100-2300 hours
- 2300-2500 hours
- More than 2500 hours

Improvement plan target

- Less than 1700 hours
- 1700-2100 hours
- 2100-2300 hours
- 2300-2500 hours
- More than 2500 hours

Source: National Chamber of Agriculture
Notes: Certified farmers covered by the survey were, in principle, those who had obtained re-certification in 2000-2001.

Fig. 24  Trends in Numbers of Agricultural Production Corporations by Organization and Type of Farm

Farms

- Public limited companies (52)
- Private limited companies (5,233)
- Partnerships (32)
- Agricultural producers’ cooperative corporations (1,636)

- Others
- Flowers and plants
- Industrial crops
- Vegetables
- Livestock
- Fruit
- Rice, wheat and barley
c  Trends in community farming organizations

There are about 10,000 community farming organizations around the country, of which 70% are mainly involved in rice farming. In future, it will be important to promote the organization and incorporation of community farming organizations in regions where there is a shortage of farmers, while applying the system of designated agricultural organizations as stipulated in the Agricultural Management Framework Reinforcement Law.

d  Trends in farmers’ business management

(1) Even in large-scale rice farming businesses, efforts are being made to reduce costs (particularly those of farm machinery, fertilizers and pesticides) and to stabilize business.

(2) Due to falling rice prices in recent years, however, the rate of decrease in agricultural gross income by large-scale rice farming businesses is exceeding the rate of decrease in costs, and profitability has also fallen in large-scale farms. In future, steps will be needed to reduce production costs further and secure agricultural gross income, enabling these businesses to secure higher profits and stabilize their business.

(2) Present status and problems of agricultural structure

a  Present status of agricultural structure by farming division

The ratio of “business farm households employing regular farm workers of less than 65 years old” in cultivated land under management and numbers of livestock reared for each main business division exceeds 80% in the facility-grown vegetables, Hokkaido upland and paddy field crops, and livestock divisions. In the paddy field crop division in prefectures other than Hokkaido, however, this ratio is less than 20%, indicating that the concentration of farmland is markedly delayed there.
Fig. 25  Degree of Contribution to Change in Cost per 10 Ares of Rice Cultivation, by Type of Cost (1995-1997, 1999-2001, Prefectures, Commercial Farms)

Notes: 1) Shows the degree of contribution to the rate of change from 1995 to 1997 (average) and 1999 to 2001 (average), by type of cost
2) The scale of land area refers to the scale of the rice planted area.

Fig. 26  Ratios of Cultivated Land under Management and Numbers of Livestock Reared by Business Farm Households Employing Regular Farm Workers of Less Than 65 Years Old (2002)

Note: Dairy farming and beef cattle are figures for 2000.
b \textbf{Trends in the structure of paddy-field farming}

In prefectures other than Hokkaido, farm households with a paddy field cultivated area under management of less than 1ha account for 70\% of the total, and those with less than 2ha for 90\%. In other words, small-scale farms still account for a considerable proportion of the paddy field land area.

Conversely, the proportion of paddy field land area taken up by large-scale farm households (i.e. those with a paddy field cultivated area under management of 10ha or more) has grown at a constant rate, increasing 4.5-fold between 1990 and 2003.

c \textbf{Issues in accelerating structural reforms}

(1) There are concerns that the maintenance and development of regional agriculture could be hindered by the slowing pace of increase in large-scale farming households, the decreasing growth rate in the concentration of farmland use in certified farmers and others, and delays in training, securing, and organizing farmers.

(2) Greater efforts are needed to materialize a desirable agricultural structure in which “efficient and stable agricultural management”, as indicated in the “Outlook for Agricultural Structure”, shoulder a major part of agricultural production.

To this end, we need to clarify the bearers of regional agriculture, systematically develop support measures to train and secure a diversity of farmers, and further prioritize support measures towards farmers to be trained. Through these efforts, we need to accelerate structural reforms of agriculture in Japan.
Fig. 27  Proportion of Land Area in Farms with a Cultivated Area of 5ha or More in the Total Cultivated Land Under Management (Paddy Fields, Prefectures and Commercial Farms)

![Proportion of Land Area in Farms](image)

Note: The total cultivated land under management, as the denominator for calculating proportions, includes land under management by agricultural holdings other than farm households.

Fig. 28  Trends in Farm Household Numbers by Scale of Cultivated Land Under Management (Trends in Annual Rate of Change) (Prefectures and Commercial Farms)

![Trends in Farm Household Numbers](image)
(3) **Trends in large-scale upland farming**

**a The status of Hokkaido’s upland farming**

Upland farming in Hokkaido accounts for one-third of all Japan’s upland farming land area, and 30% of the national crop output, thus fulfilling an important role in the stable supply of dry field crops in Japan. It also plays an important role as an industry that supports the regional economy of Hokkaido.

**b Trends in production structure**

In 2003, there were 13,000 upland farming households in Hokkaido, half of the number in 1985. The cultivated area under management per farm, on the other hand, is nearly double what it was in 1985, reaching a scale far exceeding that in the other prefectures. Nevertheless, there are also concerns over shortages of agricultural labor in Hokkaido, due to the aging of persons engaged in farming and a lack of successors.

**c Trends in farm management**

(1) The agricultural gross income per upland farming household in Hokkaido is around 24 million yen (2001), and the agricultural income is 8.56 million yen. Efficient farm management is thus being achieved through the effects of scale expansion. However, many upland field crops are covered by price policies, and the total of the average fiscal burden per upland farming household is estimated to exceed 9 million yen, which is higher than the agricultural income.

(2) In recent years, the planted acreage of wheat barley (highly labor-productive crops) has increased in upland farming households, making it increasingly difficult to maintain appropriate crop rotation. Meanwhile, the amount of organic matter applied to upland fields is diminishing, and there is a tendency for declining soil improvement efforts by upland farming households.

**d Issues for upland farming in Hokkaido**

(1) For upland farming households to maintain appropriate crop rotation and achieve sustainable large-scale crop farming in future, major tasks will be to promote a narrowing of the profitability gap between crops, an expansion of rotation crop types, and the establishment of a sustainable production system that reduces the burden on the environment (such as by making effective use of organic matter), as well as promoting research and development on related technologies.

(2) Meanwhile, a decline in the number of upland farming households is anticipated, and we need to develop a system in response to further scale expansion. To this end, an important task will be to achieve regional efforts to supplement family labor, by supporting farm labor subcontracting organizations.
Fig. 29  Trends in Scale of Cultivated Land Under Management per Farm Household  
(Tentative Calculation, 1985 = 100, Commercial Farms)

Note: Upland farming refers to farms whose No. 1 earner from sales of agricultural products is wheat or barley or cereals or potatoes or pulses, or industrial crops. Paddy farming refers to farms whose No. 1 earner is rice.

Fig. 30  Trends in Planting Composition of Main Upland Field Crops in the Tokachi Area of Hokkai

Note: □ Pulses □ is the total of soybeans, azuki beans, and kidney beans.
(4) **Securing land area and making effective use of superior farmland**

(1) The area of cultivated land under management is in a long-term declining trend (from 6.09 million ha in 1961 to 4.74 million ha in 2003). Since 1995, moreover, the area of farmland subject to abandonment of cultivation has exceeded the area of farmland converted to use as industrial or residential land. Japan’s agricultural production capability needs to be maintained and secured. As well as improving the utilization rate of cultivated land, it is important that we secure superior farmland.

Meanwhile, the area of farmland subject to abandonment of cultivation in one year has decreased for two successive years since 2002.

(2) The area of farmland subject to abandonment of cultivation is large in hilly and mountainous areas, where population aging and labor shortages are particularly acute. Efforts by structural reform special districts are expected to produce effects in stimulating regional agriculture and eliminating the abandonment of cultivation.

(3) Farmland is increasingly being concentrated among farmers. In recent years, however, the rate of this increase has slowed. Also, since the farmland concentrated among farmers is dispersed, the effects of scale expansion are diminished. Therefore, we need to promote measures that encourage the concentration of farmland among farmers in tandem with measures to secure consolidated lots of superior farmland.

(4) It is now important to promote reviews of the farmland system, from the perspective of securing superior farmland and concentrating it among farmers, maintaining and utilizing the multi-functional roles of agriculture, promoting involvement in agriculture by persons with motivation and ability, and securing farmers.

(5) **Efforts aimed at self-reform of agricultural cooperatives**

The re-sale and contracted sale of agricultural products by agricultural cooperatives have been in a declining trend in recent years. On the other hand, farms expect agricultural cooperatives to strengthen the sales capability of agricultural products and reduce prices for agricultural materials. The agricultural cooperative system needs to reform its economic business and obtain specific results quickly, in line with the resolution by the JA National Convention held in October 2003. It is also important that the government provides positive support through institutional amendments.
Fig. 31  Trends in Cultivated Land Area and Utilization Rate of Cultivated Land

Fig. 32  Awareness of Problems Related to Farmland

Farmland is too dispersed
Basic infrastructure is underdeveloped
Not enough support for farmland buyers or renters
Farmland prices and rents are too high
Not enough farmland available for scale expansion, e.g., too few landlords
Not enough support for farmland sellers or landlords
Others
No response

Fig. 33  Trends in Total Agricultural Output and Sales/Shipmant Turnovers by Agricultural Cooperatives (Grand Total for Agricultural Products)
Section 3 Promoting Production in Line with Demand

(1) Rice

a Strengthening efforts aimed at reform of rice policies

(1) The Principle and Outline of Rice Policy Reform take the basic stance of voluntary supply-demand adjustment by farmers and regions, producing rice in line with demand, accelerating structural reforms and securing farmers. We are now aiming to achieve “desirable rice farming” by 2010, in accordance with regional circumstances.

(2) Under the Principle and Outline of Rice Policy Reform, the “Future Vision of Paddy Field Farming for Local Areas” is due to be established through local stakeholders’ intentions and efforts.

(3) It will be important for farmers and farmers’ organizations to accelerate autonomous efforts aimed at realizing the “Future Vision of Paddy Field Farming for Local Areas”.

b Rice supply and demand trends

(1) Paddy rice produced in 2003 was affected by low temperatures and a lack of sunshine all over the country. In Hokkaido and the Pacific side of the Tohoku region, in particular, there was a spate of sterile rice seed and ripening disorders, with extensive damage due to rice blast. As a result, the crop condition index was 90 as a national average, and the necessary supply of rice had to be secured from rice reserves. Meanwhile, since the market distribution of rice from the 2003 harvest decreased, the voluntarily marketed rice price tended to be 20-50% higher than in the previous year. In conjunction with this, there was an increase in traders handling blend rice (a mixture of different rice strains and rice produced in different regions).

(2) The annual per capita consumption of rice fell from 118.3kg in 1962 to 62.7kg in 2002. Rice used in the eating-out industry is in an increasing trend, accounting for 30% of staple rice in 2002. In rice-producing areas, it is important that “marketable rice production” is tackled autonomously in response to the diversification of consumption.
### Table 7  Year-by-Year Action Plans for Rice Policy Reform

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Through familiarization of rice policy reform</td>
<td>• First draft of the Future Vision of Field Farming for Local Areas</td>
<td>• Formulation and practice of the Future Vision of Field Farming for Local Areas</td>
<td>• Reorganization of farmers and farmers’ groups</td>
</tr>
<tr>
<td>Supply-demand adjustment</td>
<td>• Measures to promote the development of paddy field farming with regional character</td>
<td>• Measures to reduce the impact of falling rice prices through judgments by prefectural governments</td>
<td>• Action on rice surplus through rich harvests led by farmers and farmers’ groups</td>
</tr>
<tr>
<td>Reform of collection and distribution systems</td>
<td>• Development of fair, neutral trading opportunities to suit various demand situations</td>
<td>• Development of fair, neutral trading opportunities to suit various demand situations</td>
<td>• Towards a system of government purchase and resale of rice based on tenders</td>
</tr>
<tr>
<td>Classification of farmers and maintenance of desirable agricultural structure</td>
<td>• Clification of farmers in regional areas</td>
<td>• Organization of farming communities</td>
<td>• Subsidy measures for some certified farmers and farming communities</td>
</tr>
<tr>
<td>Effective use of paddy fields</td>
<td>• Measures to promote the development of paddy field farming with regional character</td>
<td>• Measures to reduce the impact of falling rice prices through judgments by prefectural governments</td>
<td>• Action on rice surplus through rich harvests led by farmers and farmers’ groups</td>
</tr>
</tbody>
</table>

**Fig. 34  Trends in Prices of Voluntarily Marketed Rice Distribution (Average of All Brands)**

Source: Voluntarily Marketed Rice Price Formation Center
(2) **Wheat and barley**

(1) Production of wheat and barley in Japan is in an increasing trend, thanks to good harvests and the expansion of planted areas accompanying the promotion of “Paddy Field Farming Establishment Measures”. The production volume of wheat in the 2003 crop year was 860,000 tons, exceeding the target for production efforts in FY2010 as indicated in the Basic Plan for Food, Agriculture and Rural Areas.

(2) Distribution of domestically-produced wheat and barley has been almost completely shifted to the private sector since the 2000 crop year, and direct trading is undertaken reflecting quality evaluation by producers and industrial users. However, not enough efforts for production tailored to demand are made in some producing areas, leading to an imbalance between supply and demand. For this reason, appropriate planting based on industrial user needs is important. We also need to develop and disseminate new varieties with a view to improving quality.

(3) In the existing system for wheat and barley, it has been pointed out that appropriate market evaluation is not always carried out, while there are also problems of increasing fiscal burdens. We will study ideal directions for wheat and barley policies, such as attempting to focus measures on farmers, taking account of progress in ongoing studies on the new Basic Plan for Food, Agriculture and Rural Areas.
Fig. 35  Production Trends for Wheat and Barley  (“4 Grains”)

Note: The “4 Grains” are wheat and barley (including 6-row barley, 2-row barley, and hadaka-mugi).

Fig. 36  Schematic Diagram of the Cost Pool Method

Note: Monetary amounts and yields are figures for FY1999 and FY2002, respectively.
(3) **Soybeans**

(1) Production of soybeans in Japan has been in an increasing trend in recent years, thanks to good harvests and the promotion of “Paddy Field Farming Establishment Measures”. Production in both the 2001 and 2002 harvests was 270,000 tons, exceeding the production target of 250,000 tons in FY2010 as indicated in the Basic Plan for Food, Agriculture and Rural Areas. Production from the 2003 harvest fell to 230,000 tons, however, under the influence of low temperatures and a lack of sunshine.

(2) Production of low-grade soybeans has increased owing to insufficient efforts in basic cultivation technology. In future, we will need to rigorously apply basic cultivation technology, concentrate production among farmers, create collective plantations, improve quality and homogeneity, and convert production to large lots, in order to expand demand for domestically produced soybeans against competition from imports.

(3) Production of soybeans has increased thanks to institutional support measures and the efforts of producers. Given the above-mentioned problems, however, we will need to study ideal directions for system application, such as focusing support measures on farmers and the production of good-quality soybeans, taking account of progress in studies on the new Basic Plan for Food, Agriculture and Rural Areas.

(4) **Vegetables and fruit**

(1) Production of vegetables is in a declining trend, and is currently below the target for production efforts. Imports, conversely, are in an increasing trend, mainly for the eating-out industry and other trade demand. Consumption has been in a decreasing trend overall in recent years, due to a fall in weight vegetables. We need to promote structural reform of both production and distribution in order to supply domestically produce vegetables with quality and prices preferred by consumers and industrial users.

(2) Fruit production is currently below the target for production efforts. Consumption has been more or less even in recent years, though the general trend is away from fruit, particularly among younger people who seek convenience. As for fresh fruit, a diversification of products is underway, and consumption of the main domestically produced fruit, the satsuma orange, is in a declining trend. It is important that we take steps to permeate an awareness of the health-related functions of fruit, promote the “200 Grams of Fruit A Day” movement that aims to expand consumption, and establish a stable system of supply with quality and prices preferred by consumers and industrial users.
Fig. 37  Production Trends for Soybeans

Fig. 38  Supply and Demand Trends for Vegetables (FY1980 = 100)
Livestock products

In 2003 and 2004, the first case of BSE in the USA occurred, and there were outbreaks of highly pathogenic avian influenza (“bird flu”) in Thailand, China, the USA and elsewhere. Consequently, imports from countries that account for 50% of Japan’s beef imports and 70% of chicken meat imports were stopped. As a result, the Japanese government sent survey teams to other beef import source countries, and confirmed that there was a certain margin for supply from Australia. Meanwhile, since bird flu has also occurred in Japan, the relevant bodies cooperated in carrying out measures to prevent the disease from spreading.

To correct inappropriate management of livestock manure, the Law Concerning the Appropriate Treatment and Promotion of Utilization of Livestock Manure was enacted in November 1999. It is important that the relevant bodies take concerted action to promote the development of composting facilities before the end of the moratorium on application of the Law (the end of October 2004). It is also important that we position livestock manure as a biomass resource, and demonstrate and disseminate utilization technology in line with regional circumstances.

Production of fodder crops remains at only 70% of the target for production efforts in FY2010, owing to a decrease in farming households and a labor shortage accompanying the upscaling of livestock herds. We will need to continue to promote the use of existing arable land in paddy fields, enhance the efficiency of herd management labor, organize and externalize fodder production, and promote open grazing that is adapted to with land conditions.
Fig. 39  Trends in Planted Area of Fodder Crops, etc.

Notes: 1) Data for 2002 are projections.
      2) Production volume is on a TDN (total digestible nutrient) basis.
Chapter III  Creating a Recycling-based Society and Beautiful Rural Areas with Vitality (Related to Rural Development Policies)

Section 1  Maintaining and Promoting the Natural Cyclical Functions of Agriculture

(1)  The relationship between agriculture and the environment

(1)  Agriculture, forestry and fisheries are production activities that work on nature, use it skillfully, and promote its cycles, thereby also enjoying its benefits. Rural, mountain and fishing areas also form regions in which diverse eco-systems are maintained. Agricultural production in recent years, however, has given rise to concerns over an increasing burden placed on the environment.

(2)  To develop sustainable agriculture in future, we will need to place the minimum burden on the environment. To this end, efforts by producers will be indispensable, together with the understanding and support of consumers.

(2)  Diffusing and establishing production methods using the natural cyclical functions of agriculture

(1)  To reduce the burden imposed on the environment by agriculture, we need to shift to agricultural production that focuses on environmental conservation, by using soil-enhancing agents and reducing fertilizers and agricultural chemicals. Although a strong motivation by farmers towards environmentally friendly agriculture can be discerned, “eco-farmers” account for less than 2% of all commercial farms.

(2)  Efforts towards environmentally friendly agriculture are more advanced in farms with larger sales turnovers. Also, the proportion of efforts by vegetable farmers tends to be higher than those by rice farmers.

(3)  The management costs of environmentally friendly agriculture are higher than those of conventional cultivation, and the labor hours are also much longer. To establish environmentally friendly agriculture, it will be important for the relevant parties to join forces in conducting diffusion and information activities, drawing up guidelines for environmentally friendly agriculture, and making efforts of a collective areal nature.

(4)  While organic agricultural products are traded at relatively high prices, production is not expanding. To establish a system for the supply of organic agricultural products, we need to disseminate methods of pest control and others to replace agricultural chemicals and fertilizers, strengthen monitoring of production process managers under the organic JAS system, hold seminars, disclose information by registered certification organizations, and so on.
Fig. 40  Proportion of Farms Engaged in Sustainable Agriculture, by Scale of Sales Turnover (2000)

Fig. 41  Outline of Management of Farms Engaged in Sustainable Agriculture (2002, per 10 ares of rice cultivation)
(3) **Making use of biomass**

(1) Biomass is a recyclable organic resource derived from living things. By using it as an alternative to fossil resources, we will help to curb emissions of carbon dioxide and prevent global warming. Moreover, making use of waste-derived biomass will contribute to forming a recycling-type society.

(2) Various initiatives based on the “Biomass Nippon Strategy” (December 2002) are currently in progress. Use of waste-derived biomass from food waste is advancing, due to growing awareness among residents and the relatively low collection cost. Nevertheless, efforts overall are still only sporadic in nature.

(3) Making use of biomass will contribute to creating new industries and employment, and achieving recycling-type local development. To promote further efforts in future, it will be important to enhance the efficiency of conversion from biomass to energy, conduct research on technology that will contribute to developing biomass-derived products, and enhance the efficiency of biomass collection and transportation, thereby promoting reductions in the cost of using biomass.

(4) **The multi-functional roles of agriculture**

(1) Besides its basic role of providing a stable supply of food, agriculture also has other functions, such as conserving the natural environment through appropriate agricultural production activities, recharging water sources, forming favorable environments, and preserving culture.

(2) The multi-functional roles of agriculture are manifested through sustainable agricultural production activities. They include aspects of external economic effects that are not evaluated in monetary terms on markets, and aspects of a public asset, whose benefits can be enjoyed not only by people living in rural areas but also by the general public, without directly paying any price.

(3) The multi-functional roles of agriculture were defined in scientific terms by the Science Council of Japan in 2001. Some of these functions, moreover, have been given estimated monetary values, based on certain hypotheses in line with the Council’s discussions.

(4) Since multi-functional roles are understood through physical experience, it is important that we make efforts to enhance public understanding, such as activities for participatory experience of agriculture and urban-rural exchanges.
<table>
<thead>
<tr>
<th>Type of biomass</th>
<th>Volume generated annually</th>
<th>Present state of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock manure</td>
<td>approx. 91 million tons</td>
<td>80% used for compost &amp; liquid fertilizer, etc.</td>
</tr>
<tr>
<td>Food waste</td>
<td>approx. 22 million tons</td>
<td>90% incinerated or buried</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% used for fertilizer or feed</td>
</tr>
<tr>
<td>Rice straw</td>
<td>approx. 9.55 million tons</td>
<td>20% used for compost, feed, livestock litter</td>
</tr>
</tbody>
</table>
Section 2 Promotional Measures to Create Rural Areas with Vitality

(1) Present situation of rural areas

(1) In terms of population movement between major urban spheres and provincial areas in Japan, a movement from major urban spheres to provincial areas was seen between 1993 and 1995 (after the collapse of the “bubble economy”). Since then, however, movement from provincial areas to the Tokyo metropolitan region has increased.

(2) Elderly persons aged 65 or over account for 28.6% of the farming population, 10 percentage points higher than the national average. The proportion of young people aged 24 or under has fallen to 24.5%.

(3) Although the development of the living environment in rural areas is progressing, development levels remain low compared to urban areas. To secure settled habitation in rural areas, it is important that we take steps to develop social infrastructure.

(2) Present situation of hilly and mountainous areas

(1) Hilly and mountainous areas not only account for about 40% of Japan’s agricultural production, but also, being generally located in upstream areas of rivers, etc., play a part in protecting the living infrastructure of residents downstream, via the multi-functional roles of agriculture.

(2) Damage to field crops by birds and wild animals amounts to more than 20 billion yen every year. This is a problem that causes considerable harm to farming motivation and leads to the abandonment of cultivation, etc. Cheap and effective means of preventing such damage are required.

(3) With the aim of securing the multi-functional roles of agriculture by maintaining agricultural production activities in hilly and mountainous areas, a Direct Payment System in Hilly and Mountainous Areas, etc. was started in 2000. Under this system, community agreements are expected to be signed with 1,960 municipalities (more than 90% of the municipalities that possess targeted farmland) for 662,000 hectares of agricultural land by March 2003. The proportions of agreement land area by land classification, against the targeted agricultural land area, are 80.7% for paddy fields, 93.5% for grasslands, and 63.5 for upland fields.

(4) The main activities based on community agreements include maintenance of water channels and farm roads, slope inspections on farmland, establishing lease rights and contracting farm work on farmland threatened by abandonment, and clearing undergrowth in surrounding woodland to enhance multi-functional roles.

(5) 90% of the representatives of community agreements feel that the Direct Payment System in Hilly and Mountainous Areas, etc. is effective in continuing agricultural production activities. On the other hand, problems have been cited in terms of securing community leaders and diffusing the system based on the land zone characteristics and farming types of upland farming zones.
Fig. 42  Trends in Population Movements in Major Urban Spheres & Provincial Areas

ten thousand persons

Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications

Table 9  Outline of Hilly and Mountainous Areas

<table>
<thead>
<tr>
<th>Outline of region</th>
<th>Outline of agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total area (10,000ha)</td>
<td>Total population (10,000 persons)</td>
</tr>
<tr>
<td>Whole country (1)</td>
<td>3,717</td>
</tr>
<tr>
<td>Hilly and mountainous areas (2)</td>
<td>2,551</td>
</tr>
<tr>
<td>(2) / (1) (%)</td>
<td>69</td>
</tr>
</tbody>
</table>

Fig. 43  Content of Activities in Community Agreements Based on the Direct Payment System in Hilly and Mountainous Areas, etc.
(3) **Present situation of rural resources**

(1) Rural areas possess a variety of resources, including farmland and irrigation water maintained through agricultural production activities, the flora and fauna that form diverse eco-systems, rural landscapes, and traditional culture. These resources are closely linked to each other around agricultural production activities, and are maintained and utilized mainly by farmers and farming communities.

(2) The resources of rural areas, particularly farmland, irrigation water and other agricultural resources, are indispensable not only to securing a stable supply of food but also to manifesting the multi-functional roles of agriculture.

(3) Owing to depopulation, population aging, urbanization and mixed habitation in rural areas, it is becoming difficult to correctly maintain and utilize agricultural resources. Examples of this are seen in the increasing abandonment of cultivated land and inadequate maintenance of agricultural water use facilities. Moreover, there are fears that the burdens related to protecting these resources will become excessively concentrated in farmers, owing to the decline in farming household numbers, the advance of structural reforms, diminished involvement by local residents, and so on. To maintain Japan’s agricultural production and rural areas, it is important that whole regions make concerted efforts to conserve the resources of rural areas.
Fig. 44  Resources Possessed by Rural Areas

**Rural Areas**

*Rural communities*

*Stimulation of rural communities that manage the protection of farmland, agricultural irrigation water, etc.*

- **Present status**
  - Depopulation, population aging
  - Increased interest in rural areas

- **Roles**
  - Managers of rural spaces including farmland, agricultural irrigation water, etc.

**Farmland**

*Securing superior farmland, making advanced use of farmland, training farmers, etc.*

- **Present status**
  - 4.8 million hectares of farmland with agricultural production capability all over Japan
  - 4.8 million hectares of farmland including 1.57 million hectares of re-partitioned paddy fields following land readjustment
  - Paddy field land readjustment rate average 60% nationwide
  - Paddy field multipurpose conversion rate average 47% nationwide

- **Roles**
  - Stable supply of food, protection of eco-systems, protection of land (e.g. preventing floods through temporary reservoiring of rainwater)

**Organic resources**

*Creation of a recycling-type society*

- **Present status**
  - Livestock manure, food waste, community sewage sludge and other organic resources generated in rural areas
  - Annual discharge of animal waste, food waste, etc.

- **Roles**
  - Promotion of substance recycling (improvement of soil properties, reabsorption by crops as nutrients, diversification of micro-organisms in soil)

**Environment**

*Creation and maintenance of aesthetic rural environments*

- **Present status**
  - 49% of land inhabited by endangered animal species is "satochi" or "satoyama" (lowland or mountain land cultivated by humans)
  - 55% of land inhabited by endangered plant species is "satochi" or "satoyama"

- **Roles**
  - Multi-functional roles including the provision of habitats for a wide diversity of wildlife, formation of aesthetic landscapes, etc.
  - Formation of secondary natural landscapes through paddy field terracing, reservoirs, "satochi" and "satoyama", etc.
  - Rural landscapes are unique landscapes in harmony with their topography, etc., via agricultural production activities, and are a particularly Japanese resource

**Agricultural irrigation water**

*Formation of water cycles, securing and making advanced use of agricultural irrigation water, rationalization of agricultural water use*

- **Present status**
  - Agricultural water use facilities supply water to farmland, and water supplied from water use facilities brings moisture to the region
  - 45,000km of trunk agricultural water channels, dams, headworks, and others all over Japan
  - Rate of development of water use facilities for upland field irrigation: 20% as of 2002

- **Roles**
  - Stable supply of food, local water supply functions (such as water for household use, disaster prevention, snow thaw and runoff, protection of water recreation landscapes, etc.), formation of water cycles
(4) **To create rural areas with vitality**

**a  Positive use of rural resources aimed at regional revival**

To revive and stimulate rural areas, it is important that we link the resources of rural areas to a revival of local industries and vitality. For these resources to be passed on to the next generation in a favorable form, it is important that not only the framers themselves but also local residents, local authorities and others play their necessary roles.

**b  Promoting efforts aimed at regional revival of rural areas**

(1) To revive agriculture and rural areas, it is important that we use information technology to enhance the efficiency of agricultural production distribution and improve the living environment. It is also important that positive use be made of opportunities like the “All Right! Nippon Conference” (a conference that involves private companies, NPOs and others in promoting symbiosis and exchanges between cities and rural, mountain and fishing areas), so that information may be transmitted and received effectively between cities and rural, mountain and fishing areas.

The establishment of direct sales outlets for agricultural product is also highly evaluated in their promotion of social involvement of women and elderly persons and exchanges with consumers, besides their economic effects.

(2) It is important that we promote green tourism as one aspect of efforts to establish tourism and achieve symbiosis and exchanges between cities and rural, mountain and fishing areas. To increase and maintain visitor numbers, we need to develop the hospitality environment, train personnel in participatory experience instruction, and so on. Meanwhile, initiatives on agricultural experience learning are spreading throughout Japan as attempts that can broaden minds and yield immense educational effects. Besides the economic effects for rural areas implementing agricultural experience learning, there are also the effects of regional stimulation, such as the identification of various human and material resources.

**c  Promoting self-determined links between diverse supporters of regional revival**

When stimulating rural areas, it is important to obtain the diverse participation and collaboration not only of farmers and local residents, but also of urban residents, NPOs and others. Ties with other industries and other sectors will be effective in linking various rural resources to stimulation and other results.
Fig. 45  Level of Awareness of Green Tourism

- **All ages**: 20’s, 30’s, 40’s, 50’s, 60’s and above
- **Know the content**: Have heard about it, Don’t know it
- **%**: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100