Annual Report on Japanese Agriculture
FY 1998 (Summary)
(Provisional Translation)

The Ministry of Agriculture, Forestry and Fisheries

Forward

The Agricultural Basic Law established in 1961 has long been serving as the fundamental philosophy and basic guideline for formulating policies on Japanese agriculture. In those past years, the agricultural environment has been experiencing more severe situations, such as the decreasing food supply capability, the dwindling farm workforce, aging of core farmers, increased abandonment of cultivation of farm lands. In order to secure a safe and comfortable life for the general public in the coming 21st century, it is important to secure a stable food supply and support the fulfillment of multifunctional roles of agriculture through the sustainable development of agriculture and rural areas in Japan. Thus, it is an urgent and important public issue in the coming new age to fundamentally review postwar agricultural policies formulated under the existing Agricultural Basic Law from the viewpoint of the general public and to rebuild a new policy framework beyond the existing philosophy with the understanding and consent of the general public.

In September 1998, the Investigative Council on Basic Problems Concerning Food, Agriculture and Rural Areas, an advisory committee to the Prime Minister, submitted a report on a basic direction of policies on food, agriculture and rural areas for the 21st century. In December 1998, the Fundamental Principles of Agricultural Policy Reform indicating a specific guideline for new policy-making was decided upon. The 1999 ordinary session of the Diet is expected to discuss The Basic Law of Food, Agriculture and Rural Areas presenting fundamental philosophies and a basic guideline for the future policies on food, agriculture and rural areas.

Under these circumstances, regarding the annual report for this year (the Agricultural White Paper), we decided to set up three special themes: food, agriculture and rural areas, and to focus on relevant subjects to help the people toward a further understanding of the necessity of a new basic law and implementation of new policies under the Fundamental Principles of Agricultural Policy Reform.

We also tried to ensure that this report assists people to develop a deeper understanding and recognition of agriculture and rural areas, and that it will be a great encouragement to many farmers, showing how enthusiastically farmers run agriculture with their originality and creativity.
Chapter I

Japanese Agricultural Economy and Supply/Demand Trends of Major Farm Products in 1997-1998

Section 1 General Economy and Agriculture

(1) Trends in Domestic and International Economy

The Japanese economy in 1997 showed the negative growth for the first time since 1974, with the real GDP growth recorded minus 0.4%. The economy was still weak in 1998, leaving Japan in a very serious situation.

(2) Trends in Agriculture Cooperatives Businesses and Food Industry

1. As of the end of March 1998, the total number of agricultural cooperatives was 2,006, a decrease of 278 from the previous year, mainly because of on-going mergers and scale-expansion of cooperatives. The business transaction showed about a 3.5% decrease in sales and a 8.0% decrease in purchases.

2. The food industry has been in a downward trend in both production and shipment indices since 1997. In the food distribution industry, sales value decreased both in wholesale and retail. The market size of the ‘dining-out’ industry, which had been growing steadily, has slowed down. Only the ‘prepared foods’ (nakashoku) industry showed a remarkable growth of 5.5%.

Section 2 Agricultural Productivity and Farmers’ Living Standards

1. Physical labor productivity index of agriculture in 1997 was 103 to 100 in 1995. Comparative productivity of agriculture to manufacturing industry was 26.3%, 1.2 points less than the previous year.

2. When comparing the 1997 daily income per person engaged in agriculture and in the manufacturing industry, agricultural income (of a commercial farm household) was 42.0% of the manufacturing wage (of companies employing 5 to 29 full-time workers). And the agricultural income for a full-time farm household with regular farm workers under 60 years of age was at the level of 60.1% of the manufacturing wage.

3. Living expenses per family member of a commercial farm household were 1.29 million yen in 1997, 14.2% more than a wage-earner’s household, although there is a difference in the number of workers in a family; i.e. 2.49 persons for a commercial farm household and 1.66 persons for a wage-earner’s household.
4. Percentage of viable farm households (the minimum agricultural income is 6.13 million yen per household) in all commercial farm households was 5% in terms of number of farm households, 20% in terms of cultivated land area and number of regular farm workers, and 30% in agricultural gross income.

Section 3  Supply/Demand Trends in Major Farm Products

(1) Rice

1. Stock of homegrown rice as of October 1997 was 3.52 million tons due to the significant easing of rice supply/demand situation. In consideration of such a situation, measures were taken based on the Outline of New Rice Policies established in November 1997. As a result, there was an upturn in the supply/demand balance. The crop condition of rice produced in 1998 was ‘somewhat poor’ with the crop situation index at 98. The production was 8.96 million tons.

2. Sales of voluntarily-marketed rice in 1998 rice year showed a significant growth from previous year, as a result of close marketing link with government-marketed rice based on the reserve management rule.

3. Area of production adjustment of rice in 1998 was expected to be 954,000 hectares and the ratio of that to the target area of production adjustment was 99%. Looking at crops diverted from rice, general crops such as soybeans, wheat and feed crops showed significant growth due to intensive promotion and extension service.

(2) Main Upland Crops

1. Wheat has been slightly increasing both in terms of planted area and yield, due largely to increased planting by diversion from rice in recent years. Planting scale of wheat per farm household has also been gradually expanding. Homegrown wheat is mostly distributed by the central government, which makes it difficult for producers to better understand consumers’ needs, resulting in a significant ‘mismatch’ between demand and production. To address such a problem, The Outline of New Wheat Policy was established, including the transition to distribution by private sector.

2. Soybean production has been heavily fluctuating recently according to the production adjustment scale of rice. Because the planting size of soybean is inherently small, stable production and quality
standardization are considered very important.

3. Autumn/winter vegetables produced in 1998, mainly of leaf types, have been marketed at very high prices due to local heavy rains and typhoons in and after late August. Vegetables Supply Stabilization Fund, therefore, took measures to secure a certain volume of supply by selling cabbages which contracted farmers produced and urgent imports. Also, a study group of stable vegetable supply was held to discuss appropriate vegetable policies in the future.

(3) Livestock Products

1. In general, demand for livestock products has not shown any significant change while domestic production has been declining. As for imports, beef has been recovering in 1997, after 1996 when there was a decline mainly due to influences caused by the mad-cow disease. Pork showed a significant decrease, 21.7% less than the previous year, due largely to the ban on imports from Taiwan-grown hogs by the outbreak of foot and mouth disease in March 1997.

2. Production of self-supplied feed, which has been slightly decreasing in recent years, gives a large contribution to the industry, such as effective use of agricultural land and improved food self-sufficiency ratio, as well as production cost reduction by a better feed supply base.

3. The Outline of New Dairy Policies was established in order to establish an adequate price-formation system reflecting the real market situation, secure stable, (comfortable) and highly productive dairy farming, and promote the reorganization and streamline of the dairy industry by reviewing measures relating to dairy farming and the dairy industry.

(4) Price Gap between Home and Abroad

1. 1997 retail prices of food items in Japan (Tokyo) were about 10 to 20% higher than those in other major cities in the world. But, this price gap has been narrowing down recently thanks to the weak yen and efforts made for cost reduction at both production and distribution levels.

2. Ratio of production cost to distribution cost of fresh and processed foods was almost the same in Japan and the U.S., therefore both having the similar degree of price differences between Japan and the U.S. Fresh foods have a larger ratio of distribution cost to retail prices, and its difference between domestic and foreign prices was greatly influenced by various factors at the distribution level. Factors behind higher distribution cost in Japan include transportation cost, processing cost in the distribution stage, and certain responses to consumer buying behavior such as a ‘more-frequent less-quantity’ delivery system.
3. In Japan, land, personnel and energy costs, which are common in any industry, are relatively higher than in other countries. In order to lessen the existing price gap, efforts for cost reduction should be made not only in the agricultural industry but also in all related industries.

Section 4 Agricultural Policies and Trends in Foreign Countries

(1) Agricultural policies in the world

In the 1980s, with the growing competition of subsidized exports and increasing financial expenditure in agriculture, much dispute about the reform of agricultural protection policies, including price support system took place. Through discussions at the Uruguay Round negotiations and the OECD, agriculture policies around the world have been gradually focusing on market mechanisms, by appropriate measures based on diverse condition in each country (i.e. direct payment), stabilizing farm management and strengthening multi-functional roles of agriculture.

(2) Recent Trends in Foreign Countries

1. The U.S. took several measures to address the adverse effect of low grain prices on the farm economy, such as purchases of extra wheat for aid purposes, establishment of The Emergency Farm Financial Relief Act and inclusion of a package of emergency aid to US farmers (US$5.98 billion) in FY1999 budget.

2. EU countries have reached an agreement on the reform of the Common Agriculture Policy (CAP), including the reduction in price supports. France has been discussing a new agricultural basic law that focuses on the multi-functional roles of agriculture.

(3) Recent Activities in the WTO and Other International Organizations

1. Japan has been speaking out through various opportunities about the importance of multi-functional roles of agriculture, food security and a fair balance between rights and duties of importing and exporting countries, from the standpoint of a net importer of farm products. It is necessary that in the following agricultural negotiation of the World Trade Organization (WTO) the above ideas should be accepted. It is also important to direct efforts in such a way that policies formulated under the Fundamental Principles of Agricultural Policy Reform are recognized under the international rules.

2. The APEC Ministerial Meeting was held in November 1998. As for the Early Voluntary Sectoral Liberalisation (EVSL), the tariff elements of the nine fast-track sectors including forestry and fishery
have been transferred to the WTO for discussion.

(4) Shift to Rice Tariffication

The Special Treatment (exemption from the tarification) on rice is to be replaced by a new tariff measure (tarification) in April 1999 for several reasons. Amongst others, one is that it could reduce the increase of minimum access volume to half of the expected one for the reminder of the implementation period. And another is that adherence to the special Treatment currently applied to a few countries would be likely to cause negative effect against obtaining understanding by countries with which Japan should closely cooperate in the next WTO negotiation on agriculture to be started in 2000.

Chapter II  Securing a Stable Food Supply

Section 1  World Food Supply/Demand Structure

(1) Trends in the World Grain Supply/Demand

Looking at the world supply/demand trends, the stock level has been declining in the 1990s and the stock ratio of 1995-1996 hit the record-low with 14.5%. There are several reasons for this, including efforts made by major exporting countries to reduce the stock level to lessen their financial burden. Since then, the situation has been gradually easing mainly due to the sluggish demand in the Asian region and good harvests in major producers, although the stock level still remains low.

(2) Increased Short-term Instability of World Food Supply/Demand

1. Agricultural trade of the world is inherently unstable, because the ratio of export is rather small to the total production and it has a structure in which the world food exports are concentrating in very few countries and regions. Especially the trade ratio of rice is low, and the influence of its production change on the world market is relatively large.

2. In recent years, abnormal weather cycles seemingly influenced by El Niño and La Niña, and delayed construction and insufficient maintenance of irrigation facilities resulted in the dramatic increase of rice imports in Indonesia and Bangladesh in 1998.

3. WTO agricultural agreement neither keeps a fair balance between rights and duties of importing and exporting countries nor gives full consideration to securing a stable food supply.

(2) World Food Supply/Demand Could be Tight in the Mid- and Long- Term
The world grain demand is expected to increase significantly because of growing population mainly in developing countries and growing consumption of meats along with income growth. By contrast, the production side is faced with more visible restraints in securing sufficient food supply to demand increase, such as deteriorated farmland and on-going desertification. Therefore, the world food supply/demand could be tight in the mid- and long-term.

(4) Current Situation of International Cooperation in Food and Agricultural Sector

It is one of our responsibilities as a member of the developed countries to provide as much support as we can according to economic power, to solve food problems in developing countries. Securing stable world food supply/demand through international cooperation will also contribute to food security of Japan, where the dependency on other countries is rather high on many food items. Japan loaned government-marketed rice to Indonesia who suffered from a severe rice shortage in 1998 and also established The New Mechanism of Emergency Food Aid.

Section 2 Current Situation of Food Consumption in Japan and Securing a Stable Supply

(1) Japanese Dietary Patterns

1. Food consumption in Japan has almost reached a point of saturation in volume, with about 2,600 kcal per day per person on a calorie basis. By item, meats, milk and other dairy products and fats have been increasing while rice declining, indicating diet diversification.

2. The typical Japanese dietary pattern with a good balance of PFC items (P = Protein, F = Fats, C = Carbohydrate) was formed around the early 1970s. In recent years, however, the broken nutritional balance mainly due to unhealthy eating habits posed a serious problem. It is necessary to make greater efforts to maintain and establish desirable eating habits.

(2) Food Self-sufficiency Ratio

1. Japanese food self-sufficiency ratio has been continuously declining and, in 1997, recorded the lowest of major developed countries with 41% on a calorie basis. One of the major factors behind this declining trend is the increased consumption of livestock products and fats for which Japan has to heavily depend on imported feed grains and oil seeds, and decreased consumption of rice, a self-supplied staple item. This suggests that a self-sufficiency ratio could be improved by presenting new cooking alternatives.
2. In order to improve the food self-sufficiency ratio on a calorie basis by 1% by domestic production increase, the planting area needs to be larger. For example, it needs to be 1.7 times as large as domestic production in 1997 for wheat, about 3 times for soybeans and 1.4 times for self-supplied feed crops (for milk and other dairy products). But, such a production expansion needs to be achieved reduction in production cost and considerable efforts in improving quality in response to consumers' needs.

(3) Food Supply Capability of Japan

If the current production pattern is changed to achieve the most effective calorie supply with the present total area of farm land, 1760 kcal per day per person can be provided and 1,960 kcal may be possible with reserves released, which is almost the same level as in 1954.

(4) Efforts to Secure Stable Food Imports and Food Reserves

1. Japan depends on more than 80% of major farm products, such as grains, on three countries; the U.S., Canada and Australia. Japan, as a major importer, has been always speaking out for the importance of a stable food supply to these exporting countries, and makes efforts to ensure stable imports including setting the target of annual import volume with Canada and Australia.

2. Japan, a world-largest net importer of farm products, needs to secure food reserves against the temporary changes in imports such as the possible shortage of food supply caused by abnormal weather and port strikes in exporting countries. For this purpose, food reserve systems of wheat (for food), feed grains, soybeans (for food) and rice were established.

(5) Issues about Stable Food Supply and Food Security

1. In order to secure a stable food supply required by the public and food security for emergencies, it is important to position domestic production as the base for a stable food supply and maintain and expand domestic agricultural production through securing and effectively utilizing good farmland, fostering the workforce and improving technology.

2. Stable food imports require active food related diplomacy (i.e., growing mutual trust with major exporters, better information gathering system and possible exporters diversification). An adequate control and management of a reserve system of major food item is also necessary. A crisis management system should be established to secure the stable supply of food as much as necessary in cause of emergency situations such as interrupted imports.
(6) Issues about Maintenance and Improvement of Food Self-sufficiency Ratio

This rate is regarded as a quantifiable and easy-to-grasp index. It is important to consider it from both production and consumption standpoints, by setting a target for the food self-sufficiency ratio, as a guideline to encourage efforts by people concerned and promote related policies, ultimately to maintain and expand domestic agricultural production.

- On the production side, it is necessary to set up production target for each staple item such as wheat, soybeans and feed crops, all of which have high dependency rate of imports, and to explore and identify specific measures to achieve the target.
- On the consumption side, it is necessary to develop a nationwide campaign by providing information on food self-sufficiency ratio, including food consumption and farm products supply, and reduction of food remains or wastes. Educational activities are also necessary to promote a desirable dietary pattern of a good combination of rice as a staple food and various side dishes.

Section 3 Food Industry Supporting to a Stable Food Supply and Issues about Supply of Safe and Good Quality Foods

(1) Stable Food Supply and Food Industry

1. The food industry is another major player in securing a stable food supply, and has a heavily interdependent relationship with agriculture. Yet a supply system of domestic farm products to food industry has not been properly established. They are expected to further develop a stronger partnership.

2. The Management base of food industry is relatively weak because of a high portion of small and medium firms in the industry. It is necessary to strengthen management constitution by initiating horizontal measures such as supports for small- and medium- sized firms and promoting research and development activities through close cooperation among industries, governments and academics. It is also necessary to make efforts to ease the burden of industrial activities on the environment, for example, by encouraging recycling activities of food remains.

3. With distribution channels of fresh foods being diversified, the ratio of distribution via wholesale markets has been declining. Yet, wholesale markets plays a major role as a distribution hub for fresh foods, contributing to effective collection and distribution as well as for fair price formation. Therefore, it is necessary to improve business practices appropriate for the real situation of each market and item, revitalizing the markets and improving management quality of related parties.

4. In recent years, with middlemen in distribution channels cut off, the food distribution industry has
been experiencing restructuring of small- and medium- sized firms, and at the same time businesses which couldn't deal promptly with changing consumer lifestyle have been scaled down. An optimal distribution system should be established with better information technology in order to transform itself into a more effective and revitalized industry.

(2) Securing Food Safety and Improving Food Quality

1. Consumers are more conscious of food safety issues, partly because of their rather poor knowledge of food in general. Therefore, it is important to provide information and educational opportunities at a consumption stage, as well as to improve and enhance measures for securing food safety and quality in every stage from production to consumption.

2. HACCP (Hazard Analysis and Critical Control Point) techniques have got more attention in the field of food safety and quality at a manufacturing stage. A support measure (the Act of Implementation Supports of HACCP Techniques) was introduced in July 1998, because such an implementation would impose a heavy financial burden on operators.

(3) Current Situation and Related Issues of the Food Labeling and Standardization System

1. Consumers show stronger interest in the food labeling. It is necessary to improve and enhance the food labeling and standardization system, including the expanded labeling system of the place of origin, in consideration of the conformity with international standards, so that consumers can make proper selection of products. Organic foods need the establishment of inspection and certification system by third parties, in consideration of standards specified by the CODEX Committee.

2. Various issues were brought up about genetically modified foods, especially in a labeling system, when it is difficult to distinguish them from conventional foods because of their similar appearance. The Council on Food Labeling Issues, therefore, has been discussing an appropriate labeling system, in consideration of the actual situation at the production and distribution stages and trends in other countries.

Chapter III Pursuing the Sustainable Development of Japanese Agriculture

Section 1 Trends in the Agricultural Workforce and Farmlands

(1) Trends in Farm Households, the Agricultural Workforce and New Farmers

1. The structural constitution of Japanese agriculture has been further weakened, with a decreasing and an aging workforce, and core farmers born during the mid-1920s and 1930s approaching traditional retirement ages. These are very serious problems in maintaining and expanding production and
allowing the fulfillment of multi-functional roles of agriculture. It is very important to secure and foster a diverse workforce through various recruiting routes.

2. 9,700 young farmers were newly engaged in agriculture in 1997. Although the figure has been slightly increasing, it is still not sufficient to keep the industry in a stable position. Provision and improvement of various supports are strongly required.

(3) Current Situation of Abandoned Cultivation and Securing Good Farmland

1. Farmland, as a basic resource for agriculture, has been continuously decreasing (in area), because of increasing abandonment of cultivated land. This is especially true in hilly and mountainous areas where few farmers are willing to cultivate. This increasing trend of abandonment of cultivated land is a very serious problem, not only in maintaining production, but also in allowing the fulfillment of multi-functional roles of agriculture.

2. Land consolidation could not only facilitate efficient operations, but also have a positive effect to eliminate the abandonment of cultivation in areas with disadvantageous conditions. Land consolidation, thus, is a very effective way to maintain farmland and needs to be continuously and steadily promoted.

3. In order to secure good farmland, with the central government’s policy identified, it is necessary to solve this abandonment problem by developing concrete plans for the effective use of farmland in local municipalities, fully implementing a systematic use of land based on the agricultural promotion area system, and adequately dealing with demand for land for non-agricultural purposes.

(4) Trends in the Fluidity of Farmland and the Current Situation of the Expansion of the Farming Scale

Sales and lease of farmland hit a record high in area in 1997, and accordingly the commissioning of farming operations has been increasing. But, the reform of agricultural structure by the expansion of the scale of land-extensive farming is still on the way. Therefore, it is important to continuously accelerate the fluidity of farmland and to promote the integrated use of farmland by farmers in regional agriculture, through the voluntary efforts of municipalities.

Section 2 Activities of a Diverse Workforce, Securing and Fostering it

(1) Trends in Major Workforces

Approved farm units (farm units that have their own farm management improvement plans approved by the municipality), a group of a motivated workforce in regional agriculture, have been increasing and
reached a level of about 132,000 nationwide in February 1999. Also, most large-scale farmers are willing to and, as a matter of fact, the number of agricultural corporation established has been increasing recently even in the crop farming sector.

(2) Securing and Fostering a Diverse Workforce

In order to maintain regional farming, intensive measures should be taken for a motivated workforce such as full-time farmers. At the same time it is necessary to secure and foster a diverse workforce according to their regional conditions by the active use of community farming operations and to encourage the involvement of public entities in agricultural production activities.

1. Approved farm units
   It is very important to secure and foster approved farm units with good management skill in encouraging effective and stable farming operations and to take intensive measures for that motivated workforce like full-time farmers. It is necessary to identify the characteristics of farmers suitable for regional conditions and develop adequate measures for them while reviewing a basic plan for the agricultural management framework reinforcement in local municipalities.

2. Community farming
   Core farmers in regional agriculture, part-time farmers of smaller scale operations, and aged farmers work together to operate regional farming as a whole. And they play important roles in maintaining regional production and reducing cost through effective operations and joint use of agricultural equipment.

3. Involvement of public entities including third sectors
   Organizations with some public entities involved, i.e. third sectors and Agricultural Land-holding Rationalization Cooperation, play various public functions, for example, by preserving farmland and creating job opportunities in some regions, as well as supporting agricultural production activities of individual farmers through the commissioning of farming operations.

4. Agricultural service establishments (enterprises)
   These are organizations providing direct agricultural supports in the course of production. Their importance has been growing as entities in various forms, i.e. municipality corporations, provide supports in workforce or machinery and equipment for individually operated farming.

(3) Incorporation of Farming Operations

1. Incorporation of farming operations is effective in improving farm operators’ awareness and
enhancing managerial constitution by bringing several advantages such as institutional credit expansion, separation of business and family finance, and improvement in employment conditions. Incorporation needs to be further promoted.

2. Agricultural Production Corporations, especially in form of limited corporations, have been increasing and operating farms as core players in regional agriculture, making use of their merit as corporations. Review of requirements on operations, members and executive officers is necessary to revitalize these corporations through business diversification and by securing an able workforce.

3. In sectors of livestock and facility horticulture, there are some cases of corporations running very active operations by making use of merits as corporations. In the area of land-extensive type of agriculture, only a joint-stock company as a form of the conventional agricultural production corporation is allowed to establish under the Fundamental Principles of Agricultural Policy Reform, from the viewpoint of providing wider selection of management form to farmers. It is necessary to take required measures in such a way satisfactory to farmers and farmers’ organizations, in order to sweep off concerns over the entry of joint-stock companies to farming, such as the speculative acquisition of farmland.

(4) Trends in Women's Involvement in Farm

1. The employment trends of women in farm households demonstrates that every sector has quite a high dependency on women aged 35 to 65. This means that women play very important roles in farming. What's more, they are heavily burdened with general housekeeping, child raising, and taking care of the elderly.

2. More and more farm households are signing the Family Business Agreement effective in encouraging the identification of roles and status of women in farming and the involvement in farm management. This movement should be promoted further. Given that the growing business start-ups by women in agriculture contributes to better economic status of women and the revitalization of regional economy, it is important to provide various supports through information services and technical training necessary for their sound business growth.

3. The rate of participation by women in agricultural cooperatives and committees in rural areas remains low. It is necessary to create a better environment for women (e.g. by setting a specific participation goal) in order to encourage their involvement in regional policy-making process, with the aim of forming the Gender-Equal Society.

4. Difficulties in finding spouses poses a very serious problem in maintaining a sound farm
management and agricultural society. It is necessary to promote comprehensive measures to attract young women to agriculture and rural areas, for example, by improving the living environment and providing exchange opportunities between rural areas and urban areas.

(5) Development and Dissemination of Technologies Contributing to Agricultural Growth

1. Technologies play major roles in agricultural development, contributing to increasing yield and reducing working hours. Development of advanced technologies, such as biotechnology, has also progressed steadily in various fields. It is necessary to establish a goal for technological development at a national level and encourage close cooperation among industries, governments, academics, and extension organizations, and to give a high priority to issues in line with the new direction in developing agriculture policies.

2. Extension programs play major roles in technology transfer. In order to provide guidance (instruction) in technology and management in response to farmers’ needs, existing programs need to be reviewed in terms of further targeted users, closer cooperation with research institutes, provision of support for comprehensive farming operations, and improvement in extension staff capability.

Section 3 Greater Emphasis on Market Mechanisms and Stabilization of Farm Management

(1) Ongoing Use of Market Mechanisms for Rice, and Stabilization of Rice-Farming Management

1. A new bidding system will be introduced for voluntary-marketed rice in the bidding season for 1998 crops, so that prices more properly reflect the supply/demand situation and quality evaluation.

2. Price differences among brands have been widening with the development of price formation mechanism, which reflects the supply/demand situation of each brand. Affected farmers have been changing the varieties of rice they grow in response to the market movement. Rice retail prices have also been changing in line with bidding prices for voluntarily-marketed rice.

3. Farmers’ Income from rice in 1997 has declined by 20 to 30% from the previous year for all sizes of operations. The income of farmers with 1.5 - 2.0 hectares was down by 360,000 yen and that of farmers with 10 hectares or more was down by 2.2 million yen, a considerable reduction in both cases. Large-scale farmers highly dependent on rice income were more severely influenced by price fluctuations.

4. Therefore, The Rice Farming Income Stabilization Program was introduced in 1998 in order to mitigate the impact of falling prices on voluntary-market rice on rice farming management. About 80%
of farmers expecting to ship voluntary-market rice entered this program. Looking at farmers’ intentions by farming scale, large farmers are more willing to take part in this program and make use of this policy as a means of risk management to address falling rice prices.

5. In reviewing and improving the Rice Farming Income Stabilization Program, it is necessary to give full consideration to the viewpoint of fostering motivated farmers such as large-scale farmers, based on the fact that larger farmers could be severely influenced by a drop in rice prices.

(2) Price Stabilization System Agricultural Products and Issues on the Stabilization of Farm Management

Although the system for stabilizing prices of major agricultural products has been playing a positive role in stabilizing the living cost of the general public and farming management, it has also made it difficult for producers to appropriately respond to the end users’ needs, a major factor behind the weak demand for home-grown products. It is necessary to review price policies so that price policy will emphasize market mechanisms. In parallel with this, it is also necessary to introduce farm management stabilization measures to mitigate the impact of falling prices on farm management.

Section 4 Fulfillment of the Natural Cyclical Function Inherent in Agriculture

1. Agricultural production activities enable the formation and conservation of the resources of the natural environment and allow for a sustainable cyclical usage of resources. It is important that agricultural production activities can fulfill this cyclical function and, at the same time, reduce adverse influences on the environment. This ensures that the farm management environment is in good condition and agricultural production is sustainable so that agriculture can fulfill its multi-functional roles.

2. In order to adopt sustainable production methods in harmony with the environment with growing public environmental awareness and consciousness of health and safety, it is necessary to explore and identify agricultural production methods and establish an integrated system in which all parties concerned, such as farmers, consumers and the government, can work together.

3. In the area of disposal of livestock soil, there are growing concerns over the contamination of the water supply caused by inappropriate disposal in some regions. It is necessary to make effective use of livestock soil through appropriate manuring. For this purpose, an educational system for composting and relevant facilities should be improved systematically in each region.

4. Agricultural production methods with a high dependency on chemical fertilizers have interrupted the
physical cycle of agriculture. It is necessary to establish a system for cyclical use of organic resources such as agricultural by-products and food remains.

5. In order to actively deal with worldwide environmental problems and minimize their influences on agriculture, measures for reduction of greenhouse-effect gases such as carbon dioxide and methane has to be developed in the Agriculture sector.

6. In some cases, the problem of dioxins has great effects on the treatment and price of agricultural production with growing consumers’ awareness of safety. As for problems associated with dioxin and endocrine disrupter chemicals (environmental hormones), it is necessary to make greater efforts by studying the actual effects of dioxin contained in farm products, identifying the functional mechanisms of endocrine disrupter chemicals (environmental hormones), and providing the general public with exact information. This should be carried out, in close association with relevant authorities and with the aim of guaranteeing the safety of homegrown food.

Chapter IV
Promotion of Rural Areas and Fulfillment of the Multi-functional Roles of Agriculture

Section 1 Current Situation of Rural Areas Including Hilly and Mountainous Areas

(1) Population Trends in Rural Areas, Rural Communities and Regional Resources

1. Rural communities, totaling 140,000 nationwide, have experienced drastic changes resulting from the rapid growth of and progress of mixed farm and non-farm households. In particular, Many hilly and mountainous areas, have been suffering from severe depopulation, leading to a situation where it is very difficult to organize communities for any purpose. As a result, 1.6% of rural communities nationwide has disappeared in the past.

2. Consequently, hilly and mountainous areas have been suffering from a rapid increase in abandonment of cultivation, due to the many disadvantages inherent in the cultivation of these areas as compared to other areas and also the shortage of farmers willing to borrow farmland. This trend seems to be more visible in areas with more hilly farmlands and more elderly farmers.

3. There have been major changes in the functions of rural communities, mainly due to the rapidly dwindling number of farmers in these communities in recent years. Communities’ original functions seem to become considerably weaker as rural communities become mixed up with more non-farming households. Most influenced by this trend is their function as social communities, thereby leading to difficulty in the maintenance and succession of traditional rural cultures.
4. However, the roles of agriculture and farm households play in these rural communities remain very important. There are efforts to maintain regional agriculture and preserve traditional rural cultures as a whole community, in line with organized systems, for water use in rice-growing, and in close association with individual farmers.

(2) Workforce in Regional Societies and Roles of Elderly Farmers in Agriculture and Rural Areas

1. As the community population continues to diversify, it is important that communities cooperate toward the revitalization of their regions, ensuring that farm and non-farming households, women and the elderly all work together to fulfill the community functions, such as preservation of traditional rural cultures and performance of community events.

2. In rural areas, the elderly play important roles as workforce of the regions. It is necessary to provide support through identification of their activities and roles so that they can continue to be active throughout their lives. The ratio of households caring for the elderly is higher in rural areas than in major cities. Greater efforts are required to establish an improved welfare system supporting the elderly on a community basis, for example, by training and supporting voluntary personnel and organizations.

Section 2 Multi-functional Roles of Agriculture

(1) Evaluation of Multi-functional Roles
The general public is showing increasing interest in the multi-functional roles of agriculture, including aspects such as flood prevention, fostering of water resources, preservation of natural environment, and cultural succession, in addition to a basic role in ensuring a stable food supply. The monetary value generated by the fulfillment of such functions could be worth an estimated 6,900 billion yen nationwide. It is necessary to provide the general public with information and educational opportunities to promote better understanding and appropriate evaluation of those functions.

(2) Importance of Multi-functional Roles and Efforts for the Fulfillment of Such Roles

1. Hilly and mountainous areas play certain multi-functional roles such as national land preservation and water resource fostering, through agricultural production activities as a “breakwater” for the protection of the lives and property of the general public including urban residents living downstream of rivers. However, an increase in abandonment of cultivated land could cause large-scale soil erosion and bring a greater risk of landslides. In countries with steep mountains and rapid streams like Japan, it is important that these areas continuously perform such multi-functional roles through appropriate
production activities.

2. In recent years, local governments are enhancing their efforts to provide support and aid to each function, with consideration given to the importance of maintaining and fulfilling those multi-functional roles. At the same time, more municipalities are initiating aid programs to compensate for the differences in production cost between flat areas and hilly and mountainous areas where there are growing concerns over weaker multi-functional roles with increasing abandonment of cultivation.

3. The Ministry decided to introduce a direct payment in hilly and mountainous areas from the viewpoint of eliminating the abandonment of cultivation and securing the areas’ multi-functional roles, and is currently exploring and identifying methods of implementation.

Section 3 Efforts for the Revitalization of Hilly and Mountainous Areas

(1) Active Use of Resources and Efforts to Revitalize Hilly and Mountainous Areas

1. Hilly and mountainous areas account for about 40% of the total cultivated land and the population of those mainly engaged in farming. These areas also play multi-functional roles in protecting urban residents living downstream of rivers. It is important to maintain and develop regional societies in order to fulfill such roles, while encouraging the settlement of people and preserving and securing sound agricultural production activities.

2. These areas have a relatively high share of stock breeding in all of their agricultural production, while still being rice-based. One major characteristic is that a relatively high portion of pork and broiler breeding is operated in the form of a large-scale corporation.

3. In general, hilly and mountainous areas have several disadvantages in cultivation, but on the other hand they are open to the possibilities of adopting special cultivation or of producing high-quality products by making use of cool weather during the summer time and temperature differences between day and night. It is necessary to provide support to hilly and mountainous areas by promoting certification programs of regional specialties, so that these areas can take advantage of their regional characteristics to establish high value-added and high-profit making businesses through unique cultivation or the processing and marketing of original products.

4. These areas have varied regional resources. Therefore, it is important to secure job opportunities and encourage the settlement of people through efforts for revitalization. For example, by developing regional industries, not only agricultural production, through active use of those resources.
(2) Creation of Beautiful and Resident-friendly Rural Areas

1. Rural areas have been slow in improving their social infrastructure, and here has been a low penetration rate for waterworks and drainage system and a low sewage disposal rate. When farmers in hilly and mountainous areas were asked about the support measures they would most prefer, younger farmers place a higher priority on improvement of the agricultural production infrastructure while older farmers emphasizing improvement of the living environment.

2. Rural areas are not only places for agricultural production but also for living. It is necessary to promote unified improvement of the production infrastructure and living environment under the systematic use of land in order to create beautiful and resident-friendly countrysides.

3. Agriculture and rural areas also are moving toward the information society. For revitalization of rural areas, it is necessary to further improve information technology infrastructure and develop communication networks connecting central areas and local areas.

(3) Exchange between Rural and Urban Residents

1. As public awareness of the importance of a comfortable and peaceful living increases, efforts are being made to further promote exchanges between rural areas and urban residents. Although more than 60% of urban residents have some experience of exchange with people in rural areas, activities are limited to tourism and leisure. It is important to provide urban residents with more opportunities for hands-on experiences, including farm works, rural life and rural cultures so that people in rural areas and urban areas can better understand each other.

2. Direct sales of farm products to consumers have been developed as a familiar exchange opportunity in many areas in several forms. Direct sale facilities, a kind of exchange hub, play important roles in revitalizing the region. It is hoped that this system will be a stepping-stone for further development.

3. Exchange activities through personal experience of agriculture, rural life and cultures, such as green-tourism, have been gaining a wider popularity. It is necessary to improve all aspects of those activities, leading to a nationwide campaign. There is also high expectation that hands-on experiences for school children will have certain educational effects, and various efforts were initiated in line with a basic policy of partnership with the Ministry of Education. Furthermore, it is necessary to provide more kinds of support to encourage an increase in the number of kitchen gardens, in response to the needs of urban residents and from the perspective of promoting the diversified use of farmland.

4. Agriculture in and around urban areas not only produces and supplies fresh farm products, but also
plays various roles by shaping landscape, and providing recreational places and disaster prevention areas. Appropriate promotional programs are necessary for continuous sound development in response to the needs of urban residents.

**Conclusion**

The following is a summary based on the findings and considerations described in the main sections.

**[Stable Food Supply and Food Security by Positioning Domestic Production as a Base.]**

1. World food supply/demand could be more unstable in the short-term partly due to a potential increase in the fluctuation of agricultural production caused by abnormal weather, and could be tight in the mid- and long term partly because of significant demand increase. Thus, in order to secure food security, it is necessary to position domestic production as the base for a stable food supply and maintain and expand it as far as possible, making efforts to secure stable food imports and establish an appropriate and effective reserve system of main foods. It is also necessary to establish a crisis management system in order to secure a supply of as much food as necessary in emergency situations. In maintaining and expanding domestic agricultural production, it is necessary to secure and effectively use good farmlands, foster a efficient and stable workforce with good management sense, and develop and disseminate relevant technologies.

**[Setting a Target for the Food Self-sufficiency Ratio]**

2. The Food self-sufficiency ratio in Japan was down to 41% on a calorie basis, an unusually low rate among the major developed countries, mainly due to geographical restraints and significant changes in the Japanese dietary pattern. Rice consumption as a self-supplied staple food has been significantly decreasing while livestock and fat consumption is increasing, but the latter items are highly dependent on imported feed grains and oily seeds. Thus, it is necessary to establish a target for a self-sufficiency ratio as a guideline to encourage efforts by parties concerned on conditions of promoting relevant policies in two aspects; production (setting up a production target and achieving production towards this target) and consumption (developing various activities through active giving information about trends in food consumption and supply, reduction of food remains and wastes, education on the desirable dietary pattern of a well-balanced intake consisting rice as a staple food with various side-dishes).

**[Development of the Campaign to Review Dietary Patterns]**

3. The Japanese diet was nutritionally well-balanced around the early 1970's, when the so-called 'Typical Japanese dietary pattern' was formed. However, recent years have seen the gradual disappearance of this pattern due to unhealthy diets and the excessive intake of fats. It is necessary, therefore to promote a nationwide campaign to encourage proper consideration of diets,
providing more educational opportunities (in both dietary habits and foods in general) and hands-on experiences for school children in rural, mountain and fishing villages.

[Securing Food Safety and Quality, and Improving and Strengthening the Food Labeling and Standardization Systems]
4. With growing public interest in food safety and quality, it is required to improve measures to guarantee safety and quality at every stage from production to consumption. For this purpose, it is necessary to review existing standards of production material use at the production stage, encourage the introduction of HACCP techniques at the manufacturing stage, and establish relevant guidelines at both the production and distribution stages.
For optimal product selection by consumers and from the perspective of conforming to international standards, it is also necessary to improve the food labeling system, review the existing Japanese Agriculture Standards, and implement an inspection and certification system of organic foods by third parties. It is also necessary to consider an optimal labeling system of genetically modified foods to establish basic rules and introduce such a system appropriately.

[Strengthening the Food Industry Constitution and Making Food Distribution More Efficient]
5. The Food industry, together with agriculture, plays an important role in stable food supply. Thus, it is important that these two industries strengthen their cooperation toward creating an increase in demand for home-grown products and expand distribution channels to the food industry, and that the food industry, which consists mainly of small- and medium-sized companies, improve its management quality with better technological infrastructure. It is also necessary to take positive efforts in environmental protection by encouraging recycling of food remains and waste, in order to mitigate the adverse influences on the environment caused by business operations. Wholesale markets need improvement in the management quality in response to changing business environments, and to develop business practices reflecting the real situation of each market and item so as to encourage revitalization.
The Food distribution industry is also expected to make efforts for improved efficiency and revitalization with the introduction of the optimal distribution system from production to consumption, making better use of information technologies.

[Factors Behind Price Gap between Domestic and Overseas, and Efforts to Narrow Gap]
6. Land price, labor cost and other factors influencing every process in food price formation are restraints based on Japan's economic structure itself, and are somewhat inevitable within operating production activities. Recently the gap has been narrowing, but further efforts are still required by all relevant industries to reduce costs in a concerted way.

[Securing and Effectively Utilizing Good Farmland and Improvement of Agricultural Production]
7. Decreased farmlands due to increasing abandonment of cultivated land poses a very serious problem for Japanese agriculture. Thus, it is necessary to explore and identify basic policies in securing good farmlands at a national level and to promote systematic land use through concrete plans for effective land use in local governments.

For effective and stable farming operations, it is necessary to accelerate the fluidity of farmlands and the intensive use by motivated farmers through voluntary efforts of local governments and review of relevant systems for fluidity of farmland.

Agricultural production infrastructure such as farmlands and waters need to be maintained and improved under the Long-term Land Improvement Plan and in consideration of regional characteristics and environmental protection. It is also necessary to upgrade land improvement facilities which have multi-functional roles and serve as a base for improved agricultural productivity, in addition to improving the level of public management.

[Securing and Fostering Motivated Workforce and Recruiting New Farmers]

8. Dwindling farmers and aging core farmers pose critical problems in terms of the maintenance and expansion of agricultural production and fulfillment of multi-functional roles of agriculture. Thus, it is necessary to take systematic and intensive measures to ensure an efficient and stable workforce (i.e., full-time farmers) with good management sense. Also for continuous maintenance of regional agriculture, it is necessary to foster a diverse workforce reflecting regional conditions (i.e., use of community farming, encouraging involvement of public entities such as municipalities and agricultural cooperatives in production activities).

Although the number of new farmers has been recently increasing, it is not yet sufficient to keep Japanese agriculture in a stable position, and it is necessary to secure and foster motivated workforce through various recruiting routes and provide them with diverse supports including agricultural education.

As for the elderly, it is important to identify their roles in agriculture and provide the required support, with the view of developing a welfare system, which supports them on a community basis so that they can remain active throughout their lives.

[Incorporation of Farming Operations and Revitalization of Corporate Management]

9. Incorporation is effective in raising management awareness of farm operators and improves their managerial skill. These corporations are expected to act and grow as main players in regional agriculture by making use of their merits as corporations.

It is also necessary to review existing requirements on operations, members, and executive officers, in order to revitalize those corporations through business diversification and securing an able workforce. Only joint-stock companies, as a form of agricultural production corporation, are allowed to operate land-extensive farming from the viewpoint of providing a wider selection of management forms to
farmers. It is necessary to take required measures in a way satisfactory to farmers and farmers’ organizations, in order to do away with recognized concerns such as speculative acquisition of farmland.

[Emphasis on Market Mechanisms and Stabilization of Farm Management]
10. In order to promote highly-productive farming and domestic agricultural production based on demand by encouraging motivated farmers with creative ideas and good management skills, it is necessary to review price-policies so that farm product prices properly reflect the supply/demand situation of the price policy emphasizing market mechanisms. Here, it is also necessary to introduce farm management stabilization measures to mitigate the impact of falling prices on farm management.

[Raising the Position of Women in Rural Areas and Identification of Their Roles]
11. Women in rural areas play important roles not only in agricultural production, but also in farm life and rural society, but such roles have never been given the recognition they deserve. Thus, it is necessary to further promote their involvement in farming operations and regional society by setting a goal for their active participation in regional policy-making processes, and to create a good environment for them to display their ability by providing support for business start-ups in agriculture and other relevant activities. As for the spouse problem, it is necessary to provide information on agriculture, forestry and fishery operations and promote exchange opportunities between young farmers in rural areas and women in urban areas, with the aim of improving urban residents’ images of rural areas.

[Maintenance and Improvement of Natural Cyclical Functions Inherent in Agriculture]
12. For the effective use of national resources and sustainable development of agriculture, it is important to maintain and improve the natural cyclical functions inherent in agriculture. Relevant efforts would contribute to the supply of safe and quality farm products required by the public as well as to environmental protection. Thus, it is necessary to establish and disseminate production methods suitable for sustainable agricultural development, encourage adequate management and use of livestock soil, and establish a system for cyclical use of organic resources. Agriculture itself is expected to join the global activities for environment protection, such as reduction of greenhouse effect gases.

[Fulfillment of Multi-functional Roles of Agriculture and Introduction of Direct Payment System in Hilly and Mountainous Areas]
13. Multi-functional roles, such as land preservation, fostering water resources, environment protection, and cultural succession apart from the role of a stable food supply brought about by agricultural production activities in rural areas, have significant meaning in protecting the life and property of the general public. In particular, to revitalize hilly and mountainous areas serving as a breakwater for residents living downstream of rivers, it is necessary not only to take promotional measures for unique agriculture and forestry operations by use of their geographical characteristics, but also to investigate the introduction of a direct payment in a concrete way, which would support agricultural production
activities and farmland preservation.
It is also important to make greater efforts in giving information and educational activities so that such multi-functioning roles are better understood and more appropriately recognized by the general public.

[Comprehensive and Systematic Improvement of Rural Areas with Well-integrated Infrastructure of Production and Living]
14. Rural areas are not only the places for agricultural production but also for living. In order to create beautiful and resident-friendly countrysides and allow the fulfillment of multi-functional roles of agriculture, it is necessary to promote the comprehensive improvement of infrastructure by effective integration of both production and living infrastructure, in addition to systematic land use under the review of existing systems of agricultural promotion areas.

[Further Promotion of Exchange between Rural and Urban Residents]
15. In response to growing public interest in the importance of a comfortable and peaceful life, and the need for improved mutual understanding between rural areas and urban areas, favorable conditions should be promoted in all aspects for established exchange activities including green-tourism. From the perspective of responding to the needs of urban residents and encouraging diverse use of farmland, it is also necessary to promote kitchen garden operations on a larger scale. Further, from the perspective of encouraging the understanding of children towards agriculture and fostering the view of work, it is necessary to increase the opportunity to study agriculture.
Farming operated in and around urban areas plays various roles, from the supply of fresh farm products to the provision of recreational places and disaster prevention spaces. Appropriate promotional measures are required for further development reflecting the needs of urban residents.

[Responses to WTO]
16. Japan must enforce agricultural policies, fully conforming to international standards, to maintain a level position with other members of the global society. Policies formulated under the Fundamental Principles of Agricultural Policy Reform also need to be considered appropriately under such international standards.
Given this situation for purposes of the forthcoming agricultural WTO negotiations in early 2000, it is necessary to establish at an early date a basic strategy with a national consensus, focusing on the importance of multi-functional roles of agriculture, food security, and a fair balance between the rights and duties of both importing and exporting countries. Japan must also speak out actively to reach agreement appropriately reflecting its standpoint.