Japan’s Rice Policy

September 2013
Hiroshi Watanabe
Assistant to the Director, Agricultural Production Planning Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries

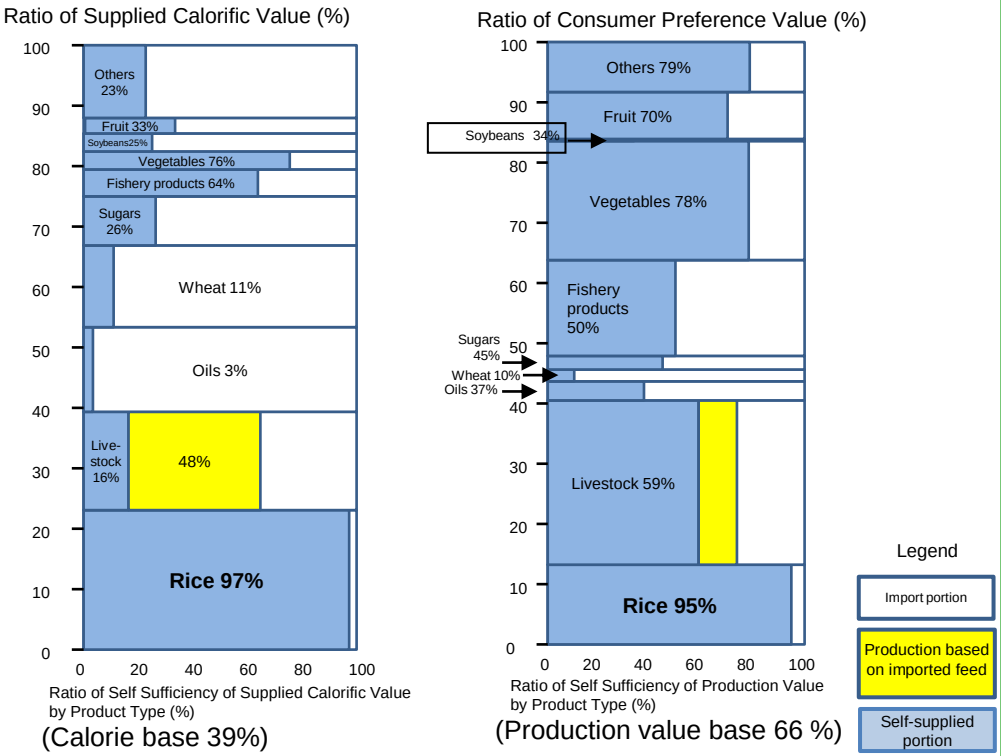
Contents

1. Positioning of Rice in Japan - 1
2. Overall Demand and Supply Trends of Rice - 4
3. Transitions in Rice Policy - 5
4. Rice Production Quantities, etc. according to Main Uses in 2012 - 6
5. Demand and Supply Prospects for Rice as Staple Food, etc. in Japan (July 2013) - 9
6. Stockpile Management by the Government - 10
7. Demand and Supply Adjustment for Rice and Effective Utilization of Paddy Fields - 11
8. Outline of Management and Income Stabilization Measures (2013) - 13
9. Rice Importing System - 14
10. Comparison of Management Scale and Production Costs, etc. between Japan and Overseas - 15
11. Movements in Quantity and Value of Commercial Rice Exports - 17
12. Strategy for Export of Rice and Processed Rice Products (Draft) - 18

1 Positioning of Rice in Japan

○ Domestic production of rice (rice cropping and paddy fields) is indispensable for Japan's food security, diet, agriculture and rural areas, national land, environment and so on. It is also intrinsically linked to the history and culture of Japanese people.

○ Japan's Food Self-sufficiency (fiscal 2011)



Amidst growing liberation of the agricultural products market and dependence on imported foods, almost 100% self-sufficiency in rice is vital to the food security of Japan, which has one of the lowest levels of food self-sufficiency among advanced countries. (Rice accounts for 60% of supplied calorific value from domestic production and 19% of domestic product).

○ Importance of Rice in Japan

- It is the staple diet of citizens and basic element of the dietary culture
- It is key to agricultural production and rural economy
  [Rice accounts for 20% of agricultural production (approximately 8 trillion yen). Paddy fields account for more than half of all cultivated land. 80% of all retailing farmers (approximately 1.5 million farms) cultivate rice].
- Diverse functions of rice cropping and paddy fields
  [Conservation of national land, regeneration of water resources, conservation of the natural environment, formation of good landscapes, passing-on of culture, etc.]
- Close relationship with the history and culture of the Japanese people
  [Rice cropping was the touchstone for development of society (villages) and state (country). The cooperative work of rice cropping is the basis of organizational culture in Japan]

○ Changes in Rice Supply and Demand in Japan

- Per capita annual rice consumption (polished rice):
  118kg (1962 (peak)) → 57.8kg (2011)
- Demand for rice (supplies for domestic consumption) (unpolished rice):
  13,410,000 tons (1963 (peak)) → 8,630,000 tons (2011)
- Amount of domestic rice production (unpolished rice):
  14,450,000 tons (1967 (peak)) → 8,400,000 tons (2011)

(Reference 1) Types of Rice in the World

○ More than 100,000 varieties of rice are cultivated in the world today, and these are broadly divided into the Japonica (Japanese) and Indica (Indian) varieties. Almost all the rice produced in Japan is Japonica.

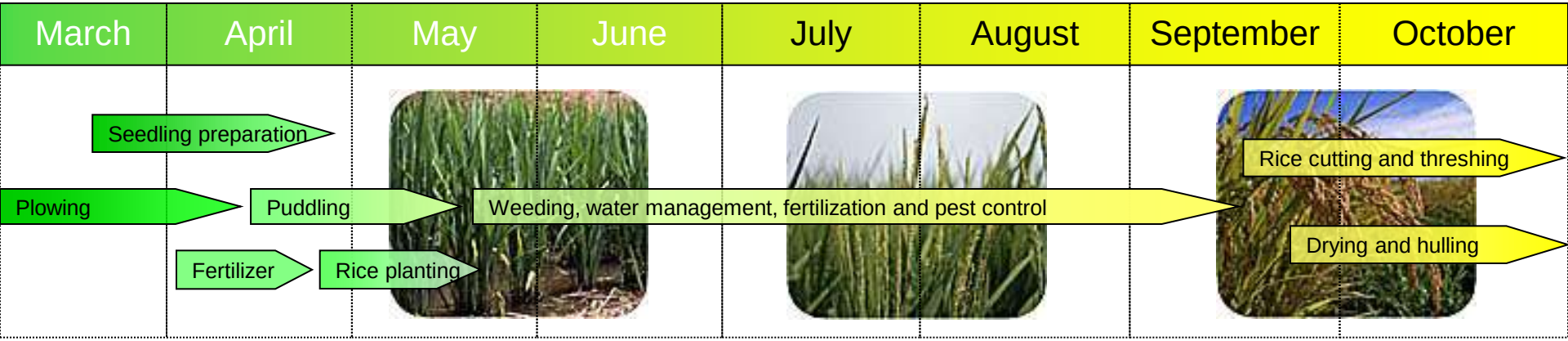
● Japonica varieties (mainly medium- and short-grained)

These are mainly cultivated in Japan, the Korean Peninsula, Northeast China and parts of Europe. Japonica rice is short-grained and almost circular and it becomes sticky and translucent when cooked. It is also grown in America and Australia.

● Indica varieties (mainly long-grained)

These are mainly cultivated in Central and Southern China, Thailand, Vietnam, India, Malaysia, Bangladesh, the Philippines and America, etc. and they account for between 80~90% of the total rice production in the world. Indica rice has long, thin grains and it is dry and non-sticky when cooked.

(Reference 2) Rice Cultivation in Japan



Field plowing and soil puddling

Fields are plowed to ensure that fertilizers and soil are mixed together well and the soil becomes soft.
Moreover, before the rice planting, paddy fields are flooded and puddling (the work of breaking the soil up even more finely) is carried out.

Rice planting

Rice planting entails planting a number of rice seedlings (3-5) at fixed intervals. The rice planting machine shown in the photograph plants seedlings and spreads fertilizer at the same time.

Weeding, water management, fertilization and pest control

After the rice planting, water and fertilizer are adjusted while monitoring the weather and growth of the rice plants; weed killer is applied to keep weeds in check; and agricultural chemicals are sprayed in order to protect the rice plants from diseases and harmful pests.

Drying and hulling

The cut rice undergoes drying and hulls are removed to leave unpolished rice.

Preparation of seedlings

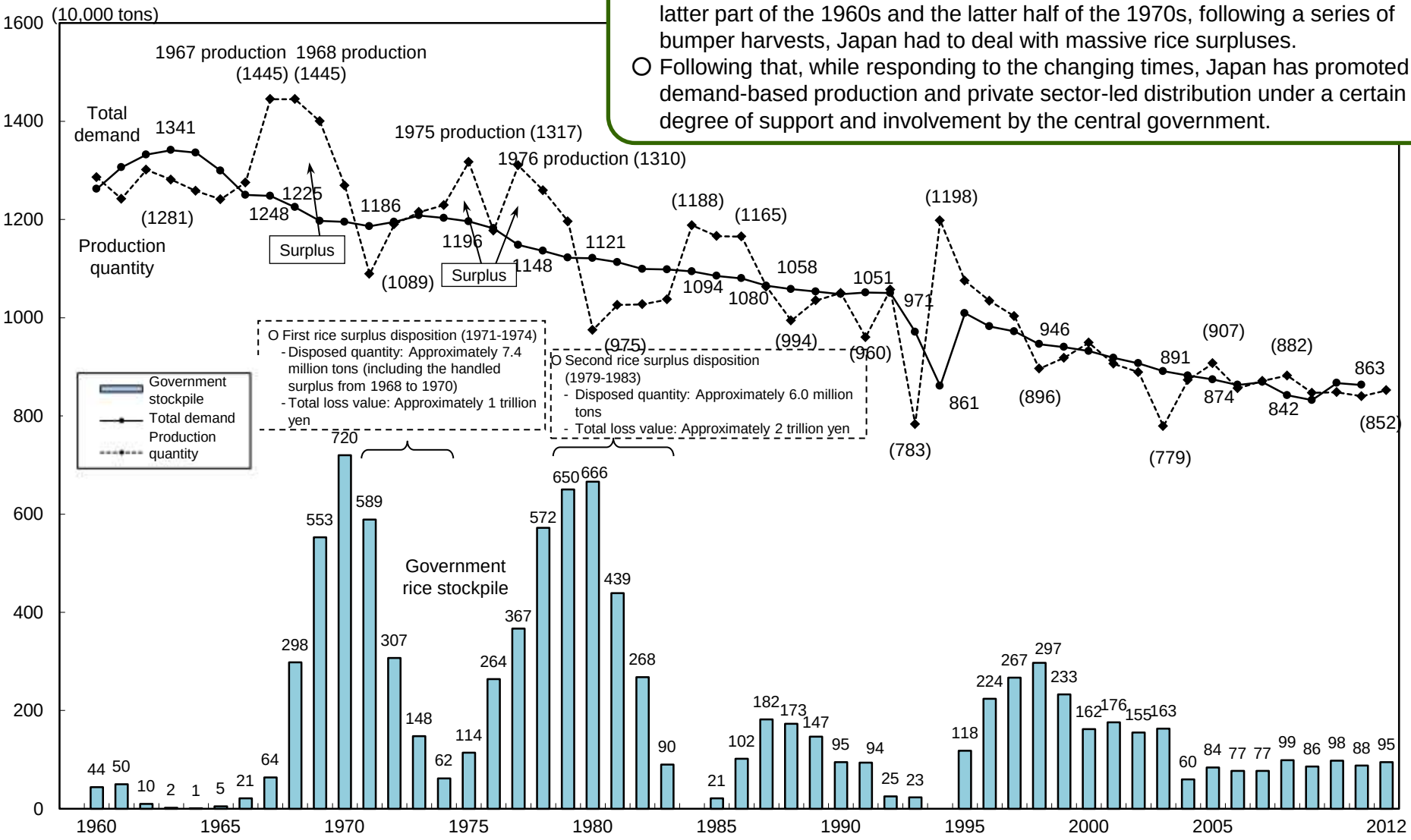
Seed rice steeped in disinfected water is spread in seedling boxes filled with soil, and the seedlings are grown in vinyl greenhouses until they are ready for planting in the fields.

Rice cutting and threshing

Rice is harvested by combine harvester. Threshing (shaking hulls off the rice plants) is conducted at the same time as the harvesting.

2. Overall Demand and Supply Trends of Rice (1960~)

- After peaking in 1963, the total demand for rice has been in decline. In the latter part of the 1960s and the latter half of the 1970s, following a series of bumper harvests, Japan had to deal with massive rice surpluses.
- Following that, while responding to the changing times, Japan has promoted demand-based production and private sector-led distribution under a certain degree of support and involvement by the central government.



Note:

1. The amount of the government stockpile does not include rice produced in foreign countries.
2. The amount of stockpile is the figure at the end of October each year. However, it is the figure at the end of June from 2003 onwards.
3. The total amount of demand is the quantity supplies for domestic consumption (including upland rice, staple rice (including rice snacks and rice flour) and rice for feed and processing) in the Food Supply and Demand Table (April to March). However, it is the quantity supplies for domestic consumption including only domestic rice from 1993 onwards.
4. The carryover stockpile at the end of October 2000 is the quantity excluding separated rice for assistance based on the 2000 emergency general rice measures, etc.
5. The amount of production is the total harvest amount of paddy rice and upland rice in the Crop Statistics.

3. Transitions in Rice Policy

1942~	Food Control Act
	The basis for full quantity management by the state (obligation to sell to the state, designation of distribution routes, etc.)
Late 1960s	Disposition of the first rice surplus: Approximately 7.4 million tons (1 trillion yen)
1969	Introduction of the free-market rice system
1971	Introduction of production adjustment
Late 1970s	Disposition of the second rice surplus: Approximately 6 million tons (2 trillion yen)
1993	Emergency import of rice due to bad harvest
	GATT Uruguay Round agreement on agriculture
1995~	Act for Stabilization of Supply-Demand and Prices of Staple Food
	- Purchase by the government will be intended only for the government stockpile to be used for complementing supply at times of poor harvest. - Distribution of rice will mainly be based on the free-market rice system.
2004	Reform of rice policy
	- Review of the method of production adjustment - Fundamental abolishment of controls on distribution

4. Rice Production Quantities, etc. according to Main Uses in 2012

O Production of staple rice in 2012 amounted to 8.21 million tons.
O In addition, external figures for rice production targets include stockpile rice, processing rice and new demand rice. (for feed, rice flour and export, etc.)

For staple use

8,210,000t

- Cropping based on production quantity targets
- Provision of subsidies and compensation for price deflation to farmers who produce in compliance with quantity targets

Non-staple uses

O Stockpile rice	80,000t
O Processing rice	180,000t
O New demand rice	220,000t

(For feed, rice flour and export, etc.)

- Free cropping is possible.
- Subsidies for production intended for purposes other than staple food
(*Not including rice for export)

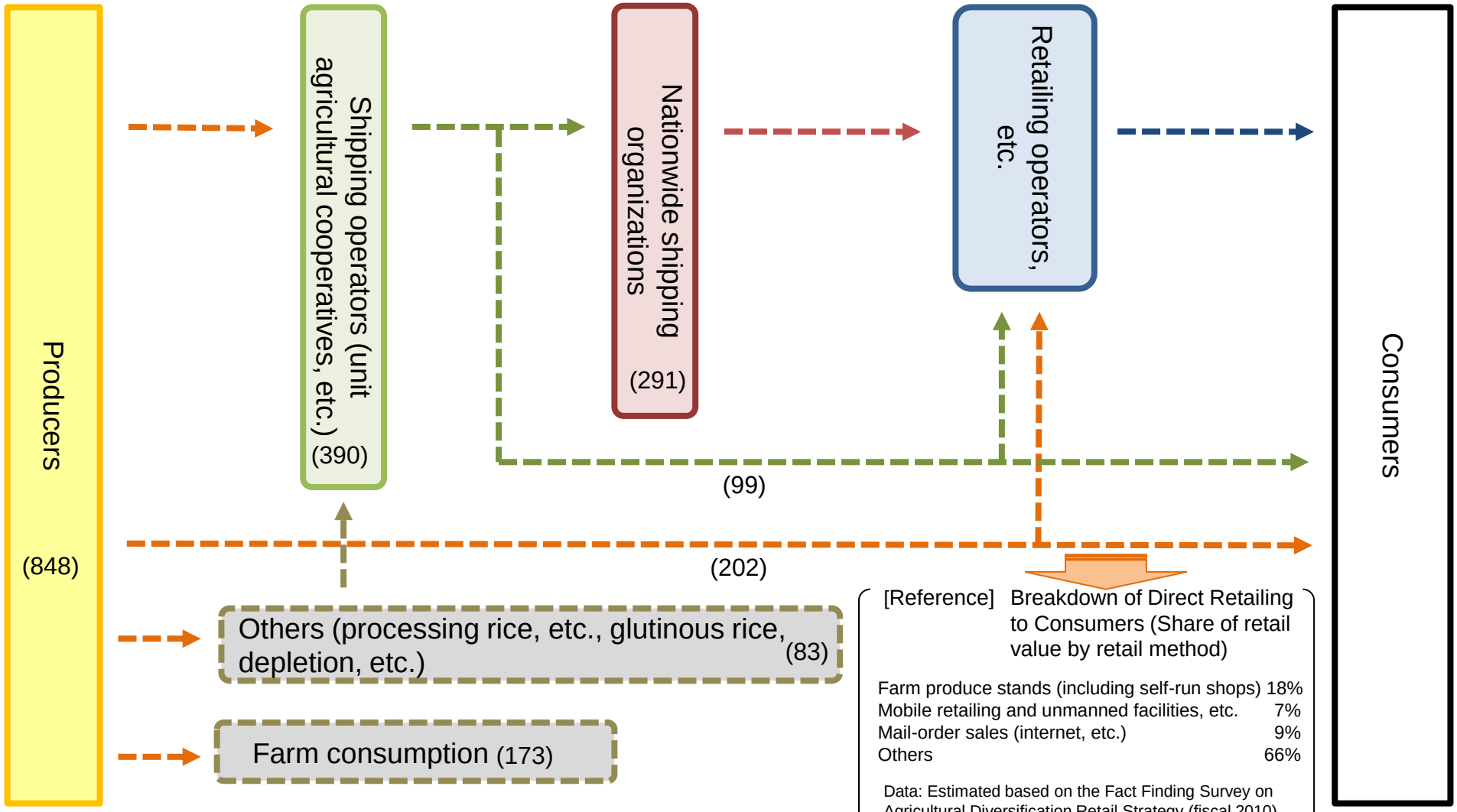
Foreign produced rice

O Import quantity 770,000t

- Importing based on WTO commitments

(Reference 1) Rice Distribution Quantities according to Distribution Route

(Unit: 10,000 tons (rice produced in 2010))



Data: Estimated based on the Ministry of Agriculture, Forestry and Fisheries Crop Statistics, Survey of Rice Stocks, etc. of Producers, Agriculture and Forestry Census, Report on Rice Transactions, and Nationwide Survey of Shipping Organizations, etc.

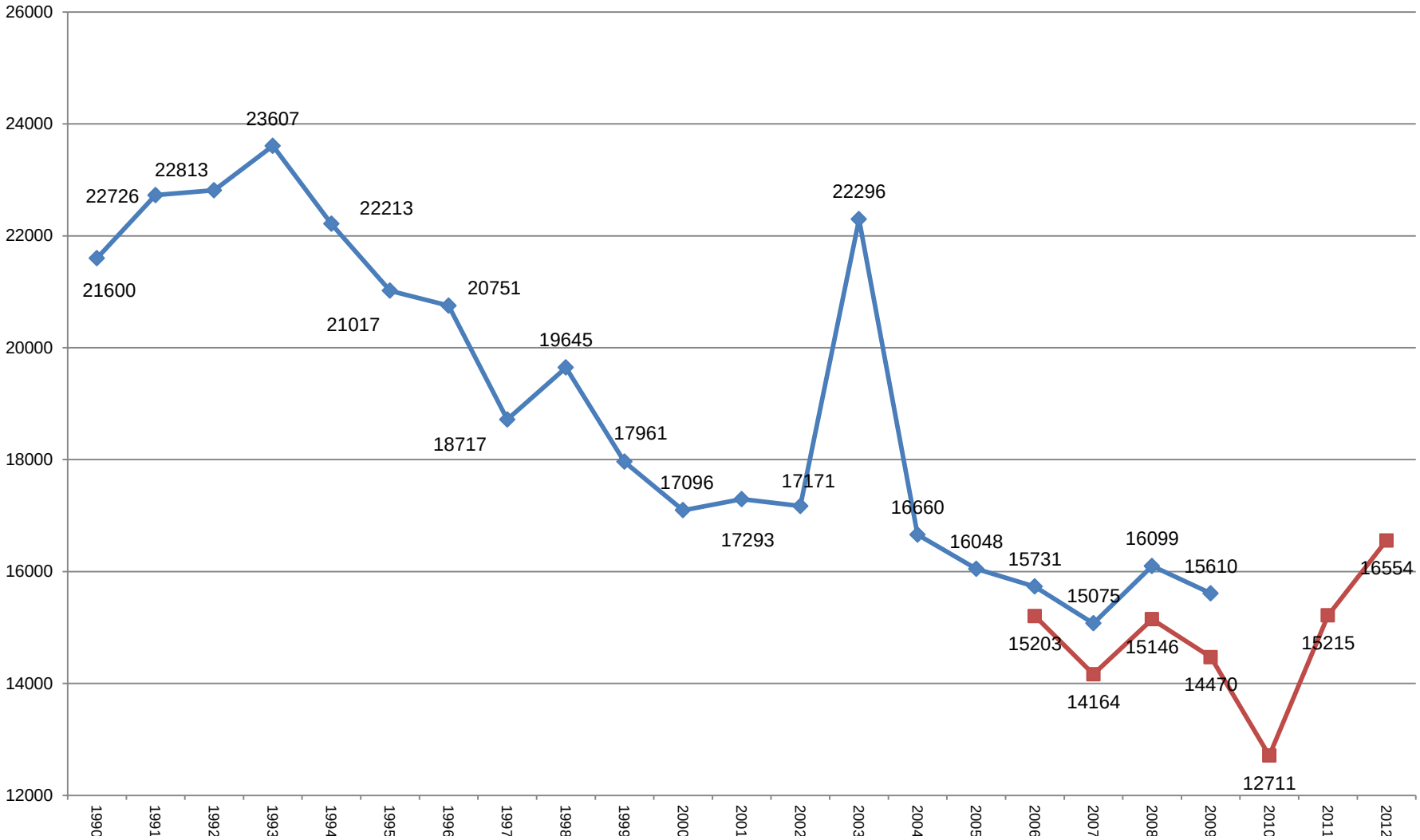
Note 1: Figures for unit agricultural cooperatives etc., nationwide shipping organizations and farm consumption are for ordinary rice (*uruchimai*).

Note 2: Operators include wholesalers, restaurant owners and home-meal business owners, etc.

Note 3: Due to rounding off, total figures do not always match with the itemized breakdowns.

(Reference 2) Long-term Price Trend of Staple Rice

(Unit: yen/60kg)



Data: The blue line was prepared based on the results of tender by the Japan Rice Trading and Price Formation Center.
The red line shows the mean comparative trading price (bulletin value as of March 2012)

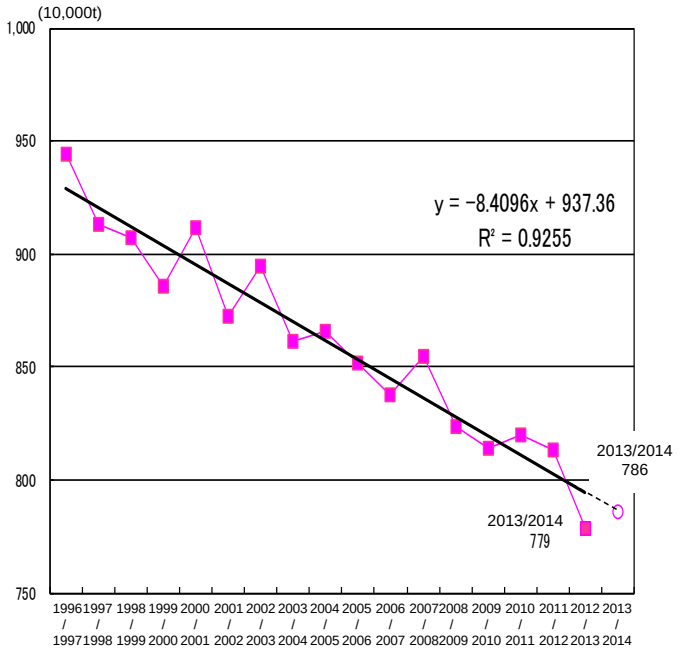
5. Demand and Supply Prospects for Rice as Staple Food, etc. in Japan (July 2013)

○ In Japan, the projected amount of staple rice demand for the coming year is estimated and the staple rice demand and supply forecast is compiled based on past trends.

○ Movements in Demand for Staple Rice, etc.

(Unit: 10,000t)

Year	x	Demand (y)	
8 / 9	1	943.8	
9 /10	2	912.9	
10/11	3	907.3	
11/12	4	885.9	
12/13	5	911.5	
13/14	6	872.1	
14/15	7	894.7	
15/16	8	861.6	
16/17	9	865.4	
17/18	10	851.7	
18/19	11	837.5	
19/20	12	854.5	
20/21	13	823.6	
21/22	14	814.1	
22/23	15	820.0	
23/24	16	813.3	
24/25	17	778.5	(Bulletin value)
25/26	18	786.0	(Estimate value)

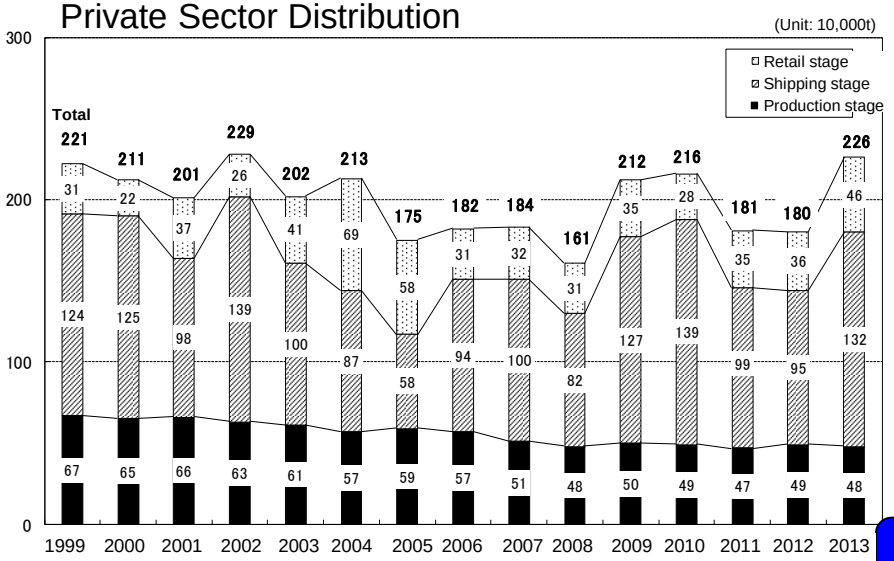


○ Projected Demand and Supply for Staple Rice in 2013/14

(Unit: 10,000 tons)

		Staple rice, etc.
Private sector stockpile at the end of June 2013	A	226
Target rice production quantity for 2013	B	791
Total supply of staple rice, etc. in 2013/14	C=A+B	1017
Demand for staple rice in 2013/14	D	786
Private sector stockpile at the end of June 2013	E=C-D	231

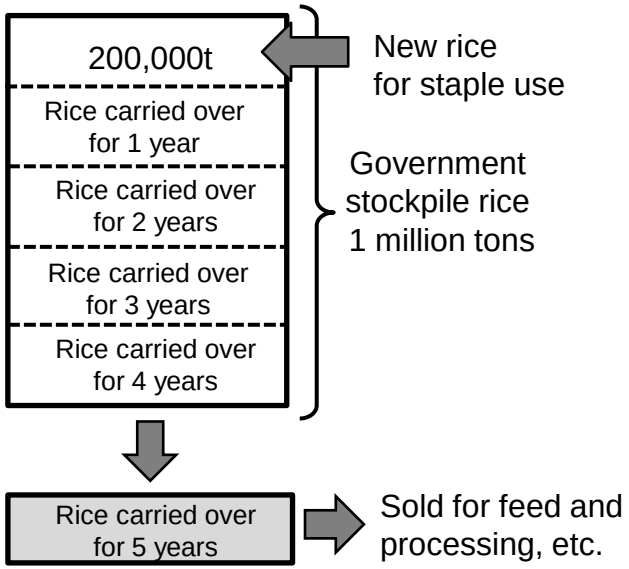
○ Movements in the Stockpile at the end of June in Private Sector Distribution



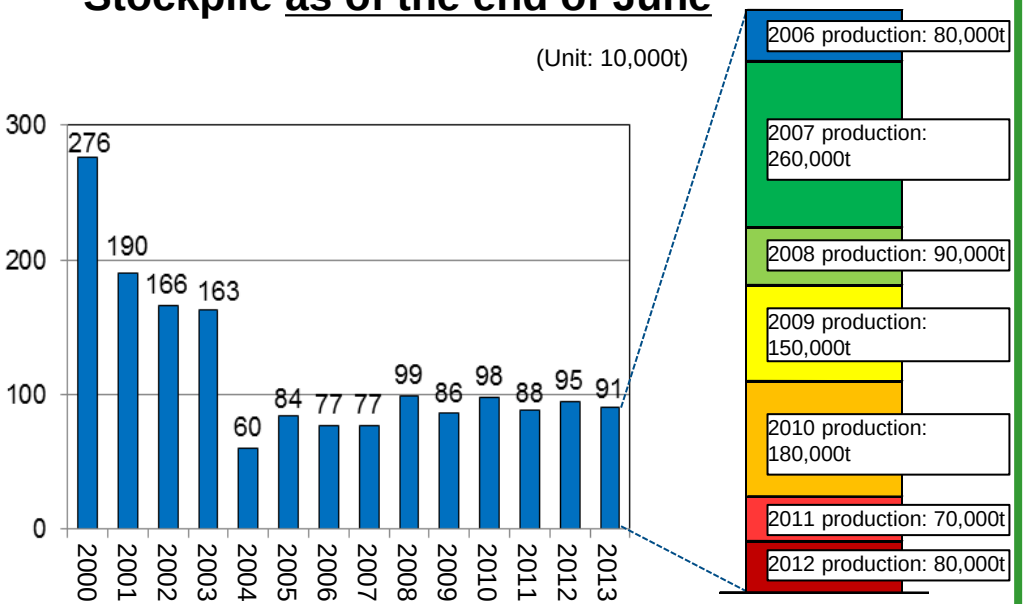
6. Stockpile Management by the Government

- Basic thinking on stockpile management utilizing the shelf stockpile method
  - Domestically produced rice is stockpiled for a certain period (around 5 years).
  - Every year, 200,000 tons is purchased by tender before harvest.
  - It is sold for non-eating purposes after stockpiling.
  - Concerning release of the rice stockpile at times were the private sector stockpile falls dangerously low due to a terrible harvest or consecutive poor harvests, the Food Working Group of the Food, Agriculture and Rural Area Policy Council debate the need for release and, based on its findings, the Minister of Agriculture, Forestry and Fisheries makes a decision on release.
- The target level for the appropriate quantity of government stockpile is around 1,000,000 tons, and the actual stockpile has varied around 900,000 tons in recent years. The expected quantity of the stockpile at the end of June 2013 is 910,000 tons.

Case of renewing 1 million tons in 5 years



Movements in the Government Stockpile as of the end of June



7. Demand and Supply Adjustment for Rice and Effective Utilization of Paddy Fields

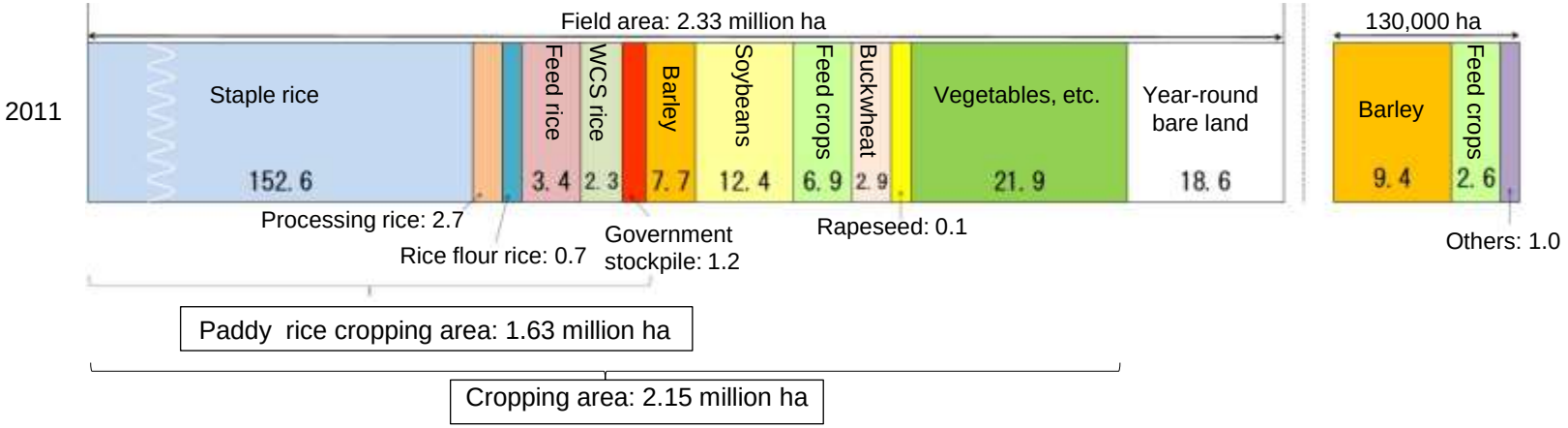
○ As consumption of rice declines, in order to make effective use of paddy fields, it is necessary to advance production of staple rice corresponding to demand, and it is also necessary to produce a good balance of soybeans (7% self-sufficiency) and wheat (11% self-sufficiency) for which there is a fixed domestic demand that is largely met by imports.

○ In these circumstances, the government determines production targets for staple rice in consideration of projected demand and takes steps such as the following:

① It offers grants to farmers who produce staple rice within the scope of the allocated target quantity, and

② It offers subsidies for production of rice intended for uses other than staple diet (processing and feed, etc.) and production of crops other than rice in paddy fields

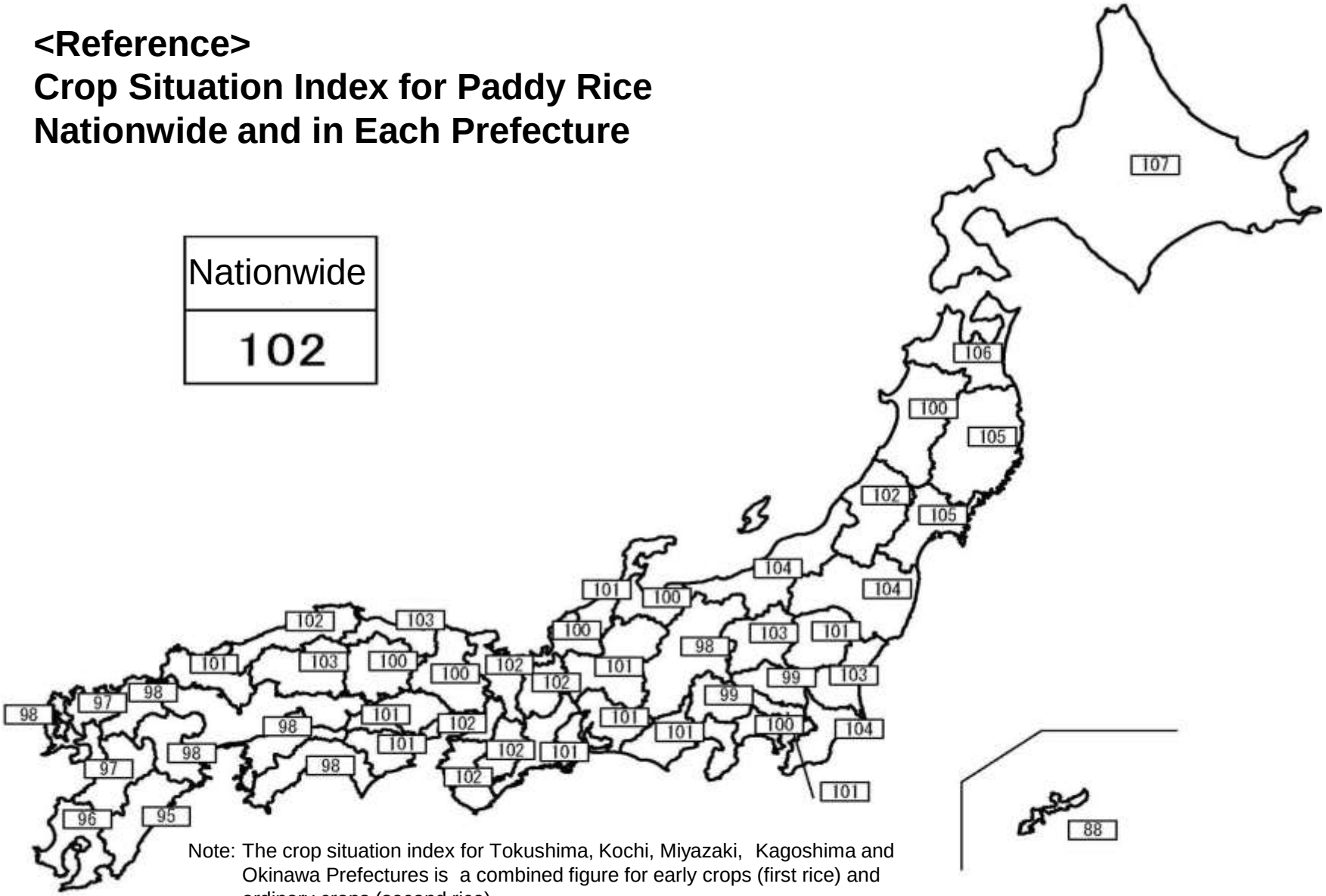
○ Area of fields Area : 2.33 million ha
for staple rice cropping : 1.53 million ha



(Reference) 2012 Crop Situation Index for Paddy Rice Nationwide and in Each Prefecture

<Reference>
Crop Situation Index for Paddy Rice Nationwide and in Each Prefecture

Nationwide
102



Note: The crop situation index for Tokushima, Kochi, Miyazaki, Kagoshima and Okinawa Prefectures is a combined figure for early crops (first rice) and ordinary crops (second rice).

8. Outline of Management and Income Stabilization Measures (2013)

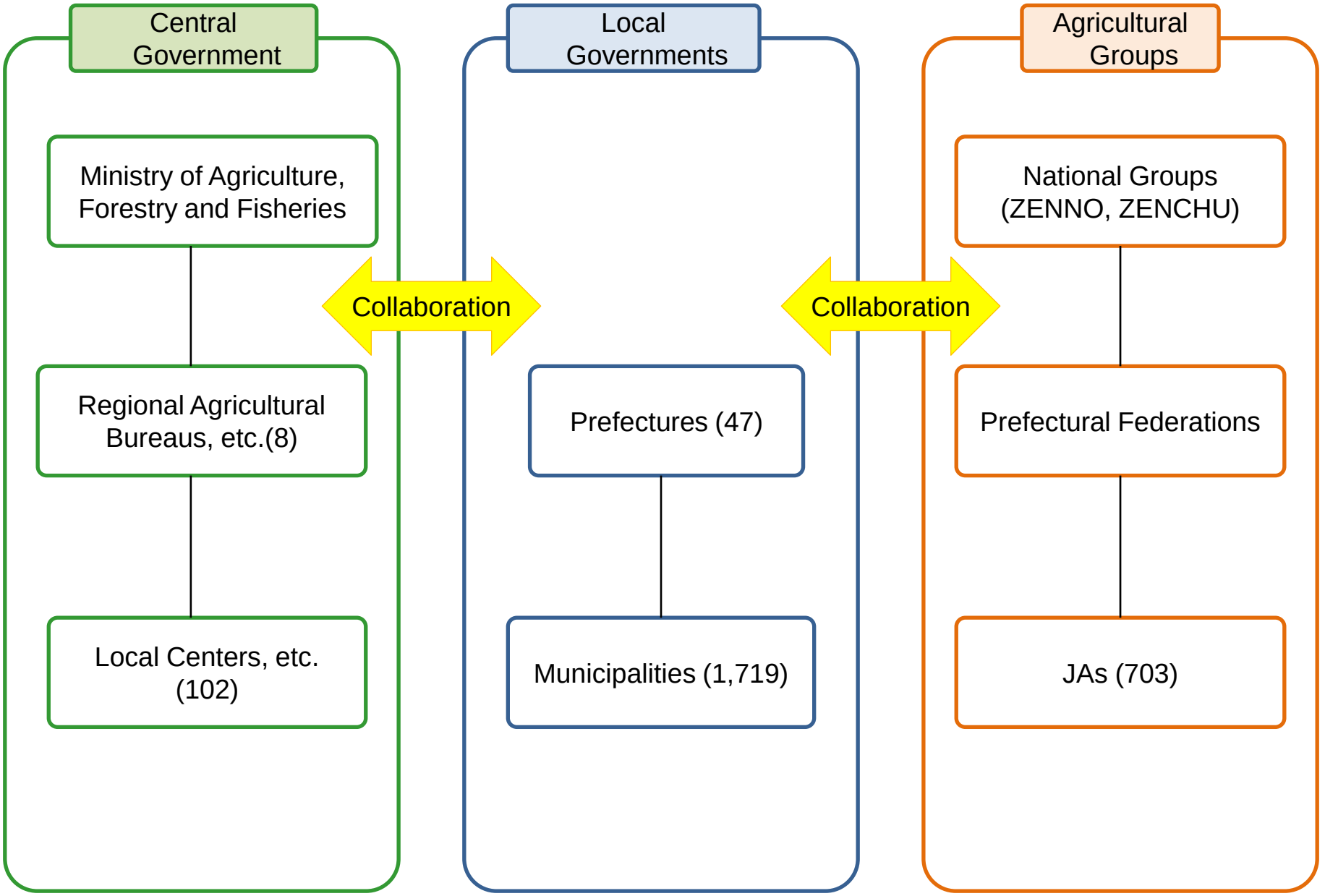
(1) Grants for growing of crops other than staple rice
Grants are provided for cropping of wheat, soybeans, feed crops, buckwheat, rapeseed and non-staple rice, etc. in paddy fields.
* Expansion of the target crops can be conducted according to conditions in each area.

(2) Grants for cropping of staple rice
Grants are provided to farmers who produce staple rice within the bounds of allocated area for the target quantity.
The grant level is determined as a national uniform amount based on the standard cost of production and standard retail price according to past data.

(3) Compensation for deflation of staple rice prices
In cases where the price of staple rice falls below the standard retail price, grants compensating the difference are provided to the farmers who receive the grants described in (2).

(4) Addition, etc.
In addition to the measures described in (1)-(3), various additions, etc. are made.

(Reference) Administrative Organizations and Farmers' Groups in Japan

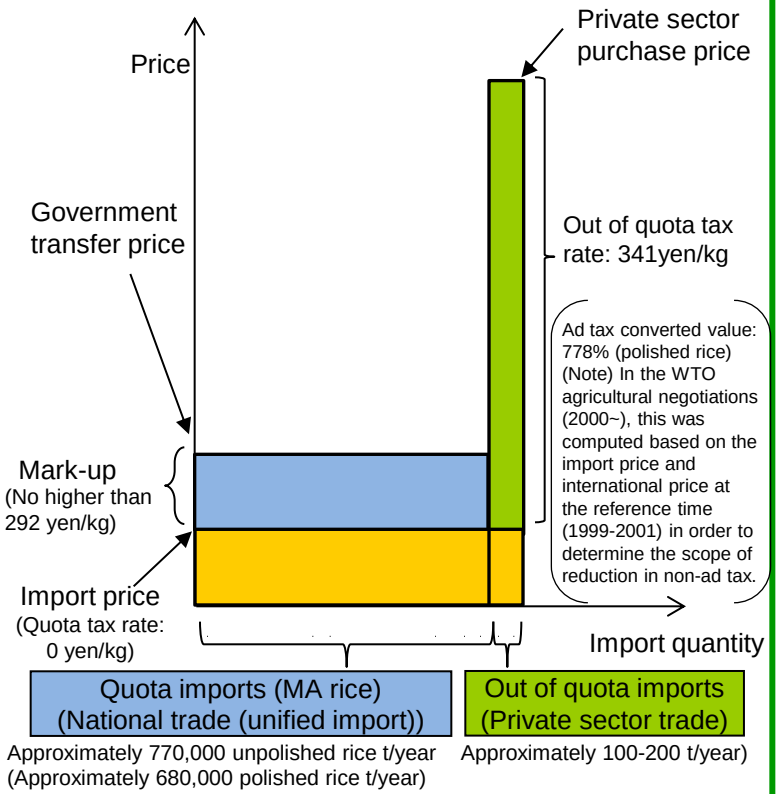


9. Rice Importing System

○Based on the GATT Uruguay Round Agreement (WTO agreement), non-taxed import quotas (tariff quotas) are set for the minimum access (MA) quantity of rice (currently standing at 770,000 tons of unpolished rice) since 1995, while imports other than the MA quantity are subject to high-level tariffs.

○The main countries of origin of MA rice are the United States, Thailand and China, etc.

○ Rice Border Measures



* Imports that Don't Go through the Government (Private Sector Imports)
- Until 1998, the import authorization system was adopted.
- In 1999, tariffs were introduced (so that anybody can import rice so long as they pay the tariff).

○ MA Rice Import Contract Quantity (by country of origin and method of import)

(Unit: 10,000 unpolished rice tons)

	2008	2009	2010	2011	2012
United States	43	36	36	36	36
Thailand	27	33	35	24	28
China	7	7	2	6	5
Australia	-	-	4	7	6
Others	0	1	0	4	1
Total	77	77	77	77	77
(General import)	66	66	72	66	66
(SBS import) *	10	10	4	10	10

* Import of SBS rice, which is part of the 770,0000 tons of Minimum Access rice, is based on special contract concluded with the government by importers and domestic wholesalers and professional users taking part in tender, and it is mainly distributed from staple diet use. SBS imports are measured in units of 10,000 tons.

Note 1: Movements in the import contract quantity in each year
Note 2: Since actual tonnage and unpolished rice tonnage figures are shown, totals do not always match.

10. Comparison of Management Scale and Production Costs, etc. between Japan and Overseas

○ There are major disparities in agricultural productivity between Japan and exporting countries due to constraints imposed by national land conditions and so on. In terms of rice production cost, the disparity is approximately 9 times compared to the United States.

○ Scale of Agricultural Management (International Comparison)

[Operating scale of farmers (agricultural management units) (comparison with other advanced nations)]

	Japan (2011)	US (2010)	EU (2010)	Germany	France	UK	Australia (2010)
Average management area (ha)	2.27	169.6	14.1	55.8	52.6	78.6	2970.4

Source: For Japan, the 2011 Survey of Agricultural Structural Dynamics
For other countries and areas: The National Agricultural Statistics Service (US Department of Agriculture) for the United States; the EU Agricultural Census (European Commission Agriculture and Rural Development Bureau) for the EU; and Australian Commodity Statistics (Australian Ministry of Agriculture and Fisheries) for Australia
Note: The figure for Japan is from 2011, while those for other countries are from 2010.
The figure for Japan shows the managed cultivated area per agricultural management unit.

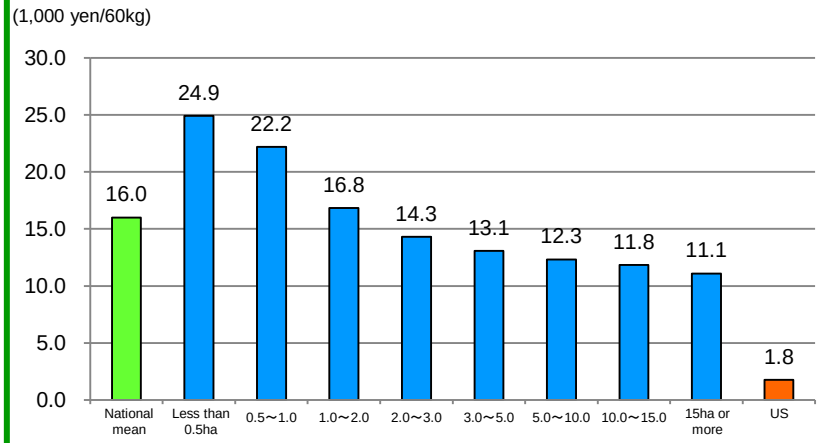
[Management Scale of Rice Farmers]

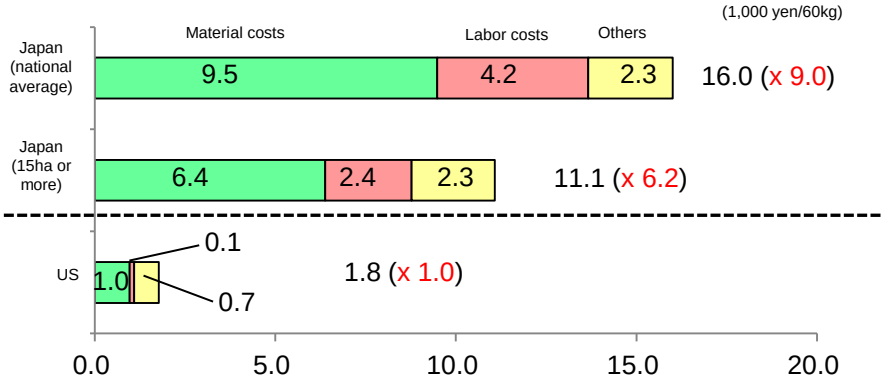
- Japan (average for rice farmers (retailing farmers)): Approximately 1.0ha (1)
- United States (average for rice farmers in California): Approximately 160 ha (160)
- Australia (average for New South Wales): Approximately 70 ha (70)
- China (average for rice farmers in Heilongjiang province (affiliated with state-run farms)): Roughly 10 ha (10)
  (* Some farmers manage in excess of 300 ha)

Sources: Japan: 2010 World Agriculture and Forestry Census (Ministry of Agriculture, Forestry and Fisheries)
United States: 2007 CENSUS OF AGRICULTURE (US Department of Agriculture)
Australia: The Rice Marketing Board of the New South Wales (State Government of New South Wales)
China: private sector research report
Note: Figures in ( ) parentheses indicate multiples of the figure for Japan.

Compared to the scale of farm management in Japan, the scale is approximately 7 times larger in the EU, 90 times larger in the United States and 1,500 times larger in Australia. Rice farmers in the United States (California) are approximately 160 times larger than their counterparts in Japan.

○ Comparison of Production Costs with the United States (2011)





Data: USDA Production Costs and Returns (2011), 1US$ ＝79.81 JPY
Ministry of Agriculture, Forestry and Fisheries “Rice and Wheat Production Costs” (2011 production)
Note 1: Production costs include capital interest and land costs.
Note 2: The average scale of farmers surveyed for production costs is 1.4 ha.
Moreover, the average rice cropping area of retailing farmers is 1.1 ha (2010 World Agriculture and Forestry Census)

11. Movements in Quantity and Value of Commercial Rice Exports

- Exports in 2012 amounted to 2,202 tons (3% up on the previous year) with value of approximately 730 million yen (6% up).
- Exports in the period from January to April 2013 amounted to 818 tons (39% up on the same period the previous year) with value of approximately 280 million yen (38% up).

	2008		2009		2010		2011		2012		2013 (January to April)	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Tons	Million yen	Tons	Million yen	Tons	Million yen	Tons	Million yen	Tons	Million yen	Tons	Million yen
Total exports	1,294 (+38%)	641 (+21%)	1,312 (+1%)	545 (−15%)	1,898 (+45%)	691 (+27%)	2,129 (+12%)	683 (−1%)	2,202 (+3%)	726 (+6%)	818 (+39%)	276 (+38%)
Hong Kong	341	172	481	206	654	249	779	256	916 (+18%)	299 (+17%)	280 (+5%)	90 (+0%)
Singapore	173	81	185	79	334	126	598	183	668 (+12%)	208 (+14%)	280 (+79%)	90 (+90%)
Taiwan	453	168	333	115	271	95	183	66	154 (−16%)	50 (−25%)	37 (+236%)	17 (+244%)
Australia	22	4	36	10	125	32	157	38	130 (−17%)	34 (−10%)	54 (+13%)	15 (+19%)
Germany	1	5	7	4	50	14	55	15	50 (−9%)	14 (−2%)	16 (−16%)	4 (−18%)
UK	9	18	26	15	36	14	57	17	48 (−16%)	18 (+5%)	22 (+57%)	8 (+49%)
Russia	63	28	10	4	52	14	49	13	41 (−16%)	11 (−18%)	22 (+57%)	7 (+108%)
China	90	52	30	14	96	43	0	0	34	14	0	0
US	26	49	17	28	39	25	46	24	29 (−37%)	16 (−33%)	38 (+375%)	14 (+180%)
Thailand	7	8	4	6	13	7	13	6	19 (+46%)	8 (+35%)	13 (+160%)	5 (+77%)
Others	109	55	183	64	228	73	192	65	113 (−41%)	54 (−17%)	56 (+65%)	27 (+41%)

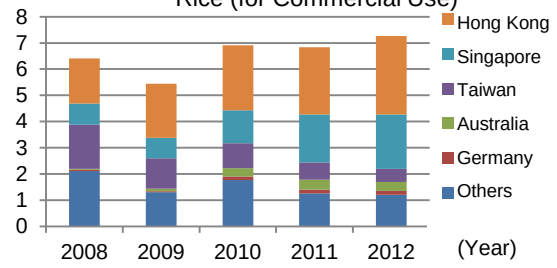
Data: Ministry of Finance “Trade Statistics” (excluding food assistance by the government)
Note 1: Figures in ( ) parentheses show the ratio of change compared to the same period the previous year.
Note 2: “Others” in 2013 comprise 17 countries and regions including Macao, New Zealand, France, etc.
Note 3: Quantities under 1 ton and values under 200,000 yen are not included.

12. Strategy for Export of Rice and Processed Rice Products (Draft)

Current Exports, etc.

○ Exports of polished rice have approximately doubled to 2,000 tons (approximately 700 million yen) in 5 years. Hong Kong and Singapore account for roughly 70%. Exports to China are around 100 tons, the highest figure so far.

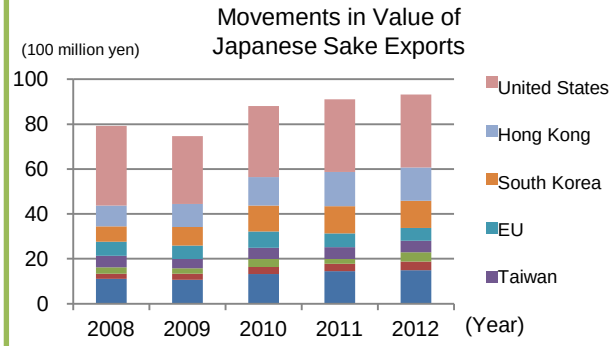
(100 million yen) Movements in Export Value of Polished Rice (for Commercial Use)



○ The value of rice snacks exports in 2012 was approximately 3 billion yen. The main export destinations were Taiwan, the United States and Hong Kong, etc.

○ The value of Japanese sake exports in 2012 was approximately 9 billion yen. Exports to the United States and Hong Kong accounted for 50% of the total amount.

Movements in Value of Japanese Sake Exports



Analysis

○ Japanese rice has a good reputation, however, there is a limit to the price disparity that is acceptable.

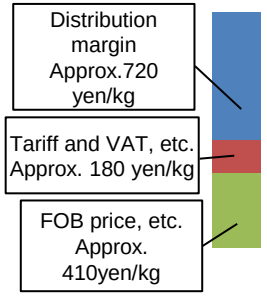
○ Rice that was polished a long time before is also retailed, leading to concerns over quality.

○ In the Chinese market, Japanese rice is available at high prices in excess of the quality difference.

Rice Retail price in Hong Kong (yen/kg)

Niigata Prefecture Koshihikari	American Koshihikari
950	490

Approx.1,300 yen/kg



Breakdown of Japanese rice retail price in the Chinese market (estimate)

○ World consumption of wine is approximately 24 million kiloliters, and the main consumer countries are the EU and the United States. The amount of consumption in China is growing.

○ Considering the size of the world's liquor market, there is a lot of room to extend the export value of Japanese sake.

Value of Each Country's Representative Liquor Exports (2011/100 million yen)

Japanese sake	French wine	UK scotch
88	7,740	5,150

Goals and Policies in 2020

○ Target export value: 60 billion yen

○ As well as polished rice, put effort into exports of processed rice products including Japanese sake and rice snacks.

➢Rice

Promote initiatives for enhancing the presence of Japanese rice, for example, localized rice polishing activities and sales to the restaurant business in tandem with rice cooking robots.

★ Priority countries

Emerging markets: Taiwan, Australia, EU, Russia, etc.

Stable markets: Hong Kong, Singapore

➢Rice snacks

Development of products that meet needs of partner countries, strengthening of promotions as easy to eat snacks

★ Priority countries

Emerging markets: Middle East, China, EU

Stable markets: Taiwan, Hong Kong, Singapore, United States

➢Japanese sake

Conduct education on the qualities of Japanese sake through Implementation of events, campaigns and seminars, etc. in fashionable cities and priority markets. Take steps to increase production of rice suited to sake making in tandem with increased production of Japanese sake.

★ Priority countries

Emerging markets: EU, Taiwan, China, Brazil, Russia, South Korea

Stable markets: United States, Hong Kong