

8 Korean Rice Policy at the Crossroad*

Chungbuk Nat. Uni.
In Chan Ahn

I. Introduction

Rice has been a staple food for Korea for a long time. Rice has been not only a food but also a standard of value as well as a basis of wealth. Rice farming has been recognized as the core of agriculture. Therefore, rice policy has been understood as agricultural policy itself. Increasing rice production and achieving self-sufficiency of rice have been major objectives of agricultural policy.

Thanks to this continuous policy putting highest priority in rice, rice industry has been the most well developed in the Korean agricultural sector. For example, rice farming is so well mechanized that it became the easiest crop to cultivate even for old or woman farmers. In the mean time Korea has achieved the objective of self-sufficiency in rice production and enjoyed high productivity in rice farming.

In the process of economic development, dietary pattern of Korean changed drastically to consuming more livestock products, vegetables, fruits and less grains. This change put Korean government into trouble for the management of stockpiling surplus rice, which Korea scarcely experienced before. This trouble became more serious with the increase of MMA (Minimum Market Access) import committed by WTO system.

In the past, agricultural policy i.e. rice policy was very simple. All of the policy measures were related with goals to increase the rice production. Among those measures government purchasing program through two tier price system has been most successful. In recent years, such a program is not allowed any more and it is not necessary to continue the same policy for the government suffering from surplus problem of rice. To escape from the trouble due to the rice, Korean government is trying to abolish three

*本稿は、世界食料需給プロジェクト研究特別研究会（平成14年11月13日開催）における報告資料に基づくものである。

decades long rice purchasing program in the name of introducing free market principle to increase the competitiveness of rice farming. However, the story is not so simple. Rice farmers who have been used to government supports so long time do not want to be free in such a sudden way. The government is lingering at the crossroad with some makeshifts such as direct payments and set aside program. It is not certain if they can be helpful for the future of Korean rice industry.

To know how Korean rice industry got to this cross road and what could be done for the future of the rice sector after reviewing the changes in rice sector and current policy trend some policy issues might be cleared. From the basis of these findings some conclusions will be able to derived with a certain prospects.

II. Changes in the Rice Industry

1. Internal Conditions

Rice planted area increased steadily until 1987. After it recorded 1,259 thousand ha in 1987 it decreased gradually. During the nineties, it decreased by 12.6% and it reached 1,055 thousand ha. However, rice is still the most important crop in Korea because the proportion of rice planted area to the total arable area is the highest by 56.7%. Proportion of the receipt from rice among total agricultural receipts remains at the highest level as 39.8%, though it is lower than 1970s 55% level.

Rice consumption per capita decreased drastically during the past three decades decreasing from 136kg per capita in 1970 to 94kg in 2000. It recorded 30.9% of decreasing rate in 30 years. Nevertheless, the total consumption did not decrease so much due to the increase of the total population during the same period.¹

As shown in Table 1, usually consumption has exceeded production with some exception. Self-sufficiency rate of rice was 97% through the 1990s.² Keeping the balance between supply and demand in rice has not been easy for the government. Therefore, the government increased the purchasing amount continuously and paid the same price even for lower quality rice to encourage production. The proportion of government purchased amount to the total production was the highest in 1993 by

¹ Population increased by 46.6%.

² Among food grains, rice is almost self-sufficient. In 2000, the self-sufficiency of the whole food grains was 29.7%. At the late '70s when the self-sufficiency of all food grains was about 60% Korea announced the liberalization of food import which meant giving up self-sufficiency policy. Since then the self-sufficiency rate has decreased continuously.

reaching 30.3%. After that it dropped gradually and has remained at the level below 20% since 1998.

In the meantime, crop year end stock of rice was piled year after year. It amounted to 978 thousand M/T in 2000, 19.1% of the total consumption and it was estimated to be 2,000 thousand M/T in 2002, twice of proper amount. It was not large enough yet to be a burden for the government judging from previous experiences.³ Some researchers, however, took precautions against the increasing trend of stock because it resulted in a heavy financial burden.

Rice cultivation became easier by the overall mechanization, 84% in average, of the work. Moreover, direct payments system was introduced for the rice farming from 2001.⁴ These favorable conditions encourage small farms and old farmers to remain in rice farming rather than give up rice farming to make remainders achieve structural improvement. In 2001 rice farms smaller than 0.5ha were 42% of the total and the proportion of the farms operated by farmers older than 65 was 35.2%. The rate of rented area to the whole rice harvested area was 46.9%. With the stagnation of the rice price farmers are always eager to find out convertible crop from rice. In these respects, Korean rice farming can be said to have some fragile characteristics.

Besides these, there can be an opinion asserting to keep the present level of rice production rather than speed up in lowering it by introducing some program as set aside in consideration of food security and in preparation of the needs after the reunification of Korean peninsula. Actually, Korea decreased the stored surplus rice easily by giving 400 thousand M/T to North Korea in 2002.

³ During 1989-1992 crop year, year end stock was 1,996 thousand M/T in average and after 1994 it was 651 thousand M/T, 65% of the amount recommended by FAO.

Therefore, recent somewhat higher stock can be seen as a temporary phenomenon.

⁴ In Japan, direct payments system has been implemented for the farmers living in less favored area. In contrast to the Japanese case Korea pays direct payments for all rice farmers evenly, 500,000 won/ha, about 5% of gross receipts, of 2002.

Table 1. Changes in Rice Industry

year	planted area (,000ha)	changes		in			quantity		year end stock (,000M/T)	government purchase rate(%)	proportion among agricultural receipts(%)	self-sufficiency(%)
		production	consumption	per capita (kg/year)	total	total						
							consumption	total				
1970	1,184	4,090	136	4,394	325	8.9	55.6	94.5				
1975	1,198	4,445	124	4,699	715	16.9	54.8	94.6				
1980	1,120	5,136	132	5,402	1,066	15.4	48.7	95.1				
1985	1,233	5,682	128	5,501	1,428	19.4	48	103.3				
1990	1,242	5,898	120	5,444	2,205	21.5	48.2	108.3				
1995	1,055	5,060	107	5,557	659	29.3	34	91.4				
2000	1,055	5,263	94	5,114	978	17.1	39.8	102.9				

Source ; MAF, Major Statistics of Agriculture and Forestry, 2001.

Another condition that can never be neglected in Korean rice policy is the fact that there still persists political theory more powerful than economic theory. This often makes government purchasing rice price to be determined at a higher level than reasonable in economic sense.⁵

2. External Requirements

Korea's position in the UR(Uruguay Round) negotiation was negative because of the fear of detrimental effects from the opening of the agricultural market, especially of the rice market. Through strenuous efforts a special arrangement was made to accommodate the difficulty that Korea concerned about its rice market. In compliance with the Special Treatment provision, Korea has not yet converted rice import restrictions to tariffs but has established a minimum quota. In other words, Korea had postponed a decision on tariffication of rice for 10 years(1995 ~ 2004). A minimum access commitment of 1~4 percent of domestic consumption was granted. The initial and final minimum access quotas were 51,307 M/T and 205,228M/T, respectively . The annual increase rate of the tariff quota was 0.25 percent from 1995 to 1999 and would be 0.5 percent from 2000 ~ 2004 as shown in Table 2. The special arrangement on rice will be renegotiated in 2004 . This minimum access quota has already been making the stockpiling surplus problem worse. At the 2001 crop year end, Oct. 31 of 2002, the accumulated amount of rice imported by MMA quotas will be 766 thousand M/T which corresponds to 38.3% of the estimated stock.

Domestic support commitment is another burden for Korean agriculture which was imposed as one of the results of UR negotiations. Korea's base total AMS amounted to 1,718.6 billion won and Korea has committed to a maximum AMS in 2004 of 1,490 billion won. The base period's(1989 ~ 1991) total AMS 1,718.6 billion won had come from 5 product-specific AMS(rice 1,568.4 billion, barley 52.3 billion, soybean 72.9 billion, corn 22.6 billion, rapeseeds 2.4 billion) and would be reduced, by 13.3 percent, to a final bound level of 1,490 billion won in the year 2002. The AMS calculation was dominated by

⁵ Usually, next year's state purchase price should be determined before the beginning of that crop year i.e. end of October. In 2000, because of the coming president election, 19th of Dec. the voices of rice farmers' were so loud that the Grain Marketing Committee which determines the purchase price postponed the decision after the election.

rice which accounted for about 90 percent.

AMS were calculated based on 1989 ~ 1991 market support price. However, Korea planned to implement the reduction commitment from the more recent 1993 level of 2,259.5 billion won. In the case of rice, Korea had also calculated market price support for 1993(2,109.3 billion won) as well as 1989 ~ 91 market support price(1,568.4 billion). If the reduction commitment must be implemented from 1,718.6 billion won, a sharp reduction in government purchasing of rice was to be necessary from the beginning of the implementation period, which, in turn, would result in mounting pressure on Korean farmers. In order to avoid such an unfavorable circumstance, Korea had tried to start implementing its reduction commitments from the 1993 level of 2,259.5 billion won even if the final bound commitment level would be based on the required reduction from the lower base level.

The problem is not the commitment amount itself. It is the fact that AMS should be decreased from the base amount year after year. To meet this requirement Korean government had to decrease the purchasing amount of rice if the price of the rice unchanged or vice versa.⁶ Nevertheless, the government could not pull down the purchasing price. Even after the WTO was established government purchasing price never fell though there were some years when the price was kept at the same level as the previous year. In 2000, the government could purchase 24.1% of the total rice product with the allowed AMS if there were no increase of price. However, Korea increased the purchasing price by 10.8% higher than previous year and there was no way other than to restrict the purchasing amount to 17.1% of the total product.

At the UR negotiations Korea was not alone because Japan was in the similar situation for the rice. The next negotiation would be different because Japan converted to accept tariffication in 1999. Korea alone it will be difficult to continue to be allowed the special treatment in the negotiations for the rice. There are some Koreans who hope Korea to be treated as a developing country in the agricultural trade negotiations. It is hardly acceptable as a member of OECD.

⁶ Every year Korea has to decrease AMS for rice 70 billion won in average until the target year's AMS will be 66% of the base year.

Table 2. Annual Rice Import and Domestic Support Commitment

	rice import	commitments	domestic support	commitment	(billion won)
	quantity(,000M/T)	MMA share(%)	1989-1991 level	1993 level	rice(1993 level)
Total			1,718.60	2,259.50	2,033.55
1995	51	1	1,695.74	2,182.55	1,964.30
1996	64	1.25	1,672.90	2,105.60	1,895.04
1997	77	1.5	1,650.03	2,028.65	1,825.79
1998	90	1.75	1,627.17	1,951.70	1,756.53
1999	103	2	1,604.32	1,874.75	1,687.28
2000	103	2	1,581.46	1,797.80	1,618.02
2001	128	2.5	1,558.60	1,720.85	1,548.77
2002	150	3	1,535.74	1,643.90	1,479.51
2003	180	3.5	1,512.89	1,566.95	1,410.26
2004	205	4	1,490.00	1,490.00	1,341.00

Source ; J.S.Kim, Korean Agriculture and Trade, Korea Farmers & Fishermen's Weekly News, 1999.

III. Current Policy Trend

To cope with the needs for changes in policy, and in particular, in order to prepare for the liberalization, the government has implemented a series of development plan focusing on improving competitiveness.

Major policy directions to be considered include; improving agricultural productivity and enhancing competitiveness, ensuring stable supply of food, activating land mobility, fostering rural young farmers, and preparing for reunification. Reunification with North Korea now looks possible in the foreseeable future. Based on these policy directions, the government has implemented a variety of programs to revitalize the agricultural economy. In late 1991, a ten-year, 42 trillion won investment plan was established, to improve efficiency in agriculture and rural living conditions. The underlying basis for the plan lay in the belief that significant structural adjustments were necessary to prepare for the changing agricultural policy environment. The major focus of the plan was given to the land

policy involving the creation of the Agricultural Promotion Zones, where land holding limitation was removed and higher investment was given.⁷

The New Agriculture Plan announced in June of 1994, emphasized increasing efficiency in the agricultural sector and stressed the need to improve farmers' expertise. In addition, to eliminate the unnecessary regulations and restrictions in the agricultural sector, much reform had been made in the institutional areas. Through the legislation of Farm Land Act in 1996 and amendment of the Agriculture and Rural Community Basic Act in 2000 institutional foundation was established. In 1994, a new Agriculture and Fisheries Development Plan was initiated to enhance the competitiveness effectively in the agricultural sector. The government established a special tax, which targeted collecting a total of 15 trillion won, to support the plan financially. These funds were in addition to the 42 trillion won already committed under the 1991 program.⁸

In 1996, a Comprehensive Program for Rice Industry Promotion was established. The plan is being implemented even now with some supplementary considerations as preservation of multi_ functionality of rice farming and the stability of farm households' income. The plan has stressed the revising the rice marketing system and restructuring the rice industry. After that several payments plans have been introduced for rice farming . To make the mobilization of paddy land easier payments were given to over 65 years old farmers who transfer their management right to young farmers from 1997 in the name of management transfer pension. To compensate for the freeze or decrease of the state purchasing price or amount direct payments have been given to rice farmers since 2000. From 2002 the government began to introduce new direct payments program which compensates 70% of decreased price for contracted farmers if the price fell down than previous year. Another direct payments will be given to farmers who participate in set aside program for rice from 2003.⁹

⁷ From 2003 land holding limitation will be entirely removed.

⁸ The special tax program is going to be expired in June of 2004.

⁹ With the establishment of WTO main theme of agriculture policies changed from price supporting measures to income supporting measures. IMF crisis in 1997 accelerated the changes.

IV. Policy Issues and Prospects

It is imperative to pull down the domestic prices to the international level, one fifth of current prices, so that local farmers will be able to compete with foreign growers in one hand and to decrease domestic production to make the stockpiling pressure light on the other hand. Both the internal condition and the external requirements enforce Korea to decrease rice production. The main theme of recent Korean rice policy can be summarized as introducing the drop of rice price through let the price be decided by the competitive market instead of supported by the government as usual.¹⁰ Meanwhile, Korea is going to promote the growing of high quality varieties that have market superiority over cheaper imported types and less productive than currently popular varieties. To prevent excessive production various kinds of measures such as paying higher state purchase price for quality rice will be introduced as well.¹¹ In a future-oriented policy, the government may abolish the rice purchasing system with the introduction of set aside program to decrease domestic production. This is a great policy turnaround for the Korean government which has stuck to increasing quantity oriented policy for a long time.

Since the rice surplus persisted, Korean government allowed rice farmers to use their paddies for other cash crops or greenhouses. The government is going to allow farmers to leave some paddy lands idle as a next step. To compensate for the expected drop of farmers' income, several kinds of subsidies and payments have either offered already or will be introduced in a near future. In this process Korean government has been confronted with some contradictions and dilemma. By giving subsidies or payments it was possible to supplement the decreased income more or less. However, it made both the structural improvements and the decrease of surplus stock difficult by encouraging small holders remain in rice farming to produce more

¹⁰ As Ahn(1996) indicates dropping rice price will decrease the farm income and result in the increase of farm debt under the present Korean farm households structure.

¹¹ With the premise that quality varieties are less productive Korean government is going to solve two problems, surplus problem and lack of competitiveness problem, by giving premium for quality rice. However, it is uncertain if that policy will be successful because price differences among varieties are less than 15% at best. Whereas in Japan price differences among varieties are conspicuous. The price of the highest quality rice was 47.7% higher than that of the lowest one in bidding price. Among the same Gosihikari variety the price difference was 16.7%. (NihonGeizai Shinbun, 2002 Nov. 27)

rice.¹² Giving payments for the set aside of rice farming will also be detrimental to the structural improvements just like Japan experienced and will augment already existed surplus problem of upland products by converting rice production to other production such as cash crops, vegetables and fruits. Choi(1997) pointed out this as a substantial adjustment problem.

The drastic policy change is inevitable so as to meet the rapidly changing environment at home and abroad. Historically Korean rice policies have focused on internal policies. Main tasks of them have been to meet ever increasing demand through increasing supply. Demand for rice has been intrinsically increasing variable. Therefore, there has been no need to create new demand for rice other than food. In fact, consumption of rice for other use such as brewing has been prohibited during the rice shortage era. Rice policy has been so much accustomed to supply oriented policy that even in rice surplus era only supply side policies have been emphasized. However, supply side policies have their own limitation and it is difficult to expect making rice industry survive though all of the policy objectives were accomplished as planned in the strict international competition arena.

Most of the rice policies suggested with the establishment of WTO could be seen as that should be done for the development of rice farming even in closed economy. Now is the time to pursue new policy, to create new demand for rice by developing new processed products and new uses of rice for export rather than domestic consumption because supply became increasing variable while demand became given or decreasing variable. By developing exportable products using imported cheap rice Korea may be able to solve the problem derived from rice more easily.¹³

In addition to these, Korean government should avoid conflicts between policies and also receive favorable terms at the next WTO negotiations to deter the drastic opening of the domestic market and thus help farmers save time till they build up a competitive edge.

¹² Though average planted area of rice farms has been increased continuously, from 0.80ha of 1988 to 1.0 ha of 2000, it is far smaller than expected 4.0ha as policy goal.(KREI, 2002)

¹³ Demand of rice for processing is negligible in Korea. It was only 3.4% of the total consumption. If we assume as all of the imported rice by MMM commitment were processed 1.4% of the domestic products were processed in 2000.

V. Conclusion

During the era when chronic shortage of rice prevailed rice policy was simple and easy to pursue. Encouraging production as much as possible with given budget constraints was the core of the policy. To increase the production chemicals were used almost without limitation and the government supported the price without giving any attention to the world market. It became complex and controversial to pursue the goals at this globalization stage.

Although it is suspicious if Korea has achieved self-sufficiency of rice in real sense, there are some opinions worrying about surplus problem on seeing increased stocks and disappearance of seasonal variation of the rice price. The government has already announced the principle not to enforce promoting rice production any more.

Some assert to be hurry in adopting set aside or converting to other crops program for rice sector. However, there are some weak aspects in Korean rice farming which can result in a sudden decrease of production. Structurally most of the farms are managed by old farmers and rented farmers. Production can be readily decreased due to this weakness. Old farmers can easily give up rice farming if market conditions are not favorable for them and rented farmers as well.¹⁴ Decrease of paddy land for non-farm use and the restrictions on the use of chemicals for the food safety and environmental reasons can cause certain amount of decrease in rice production. Even small changes in weather conditions can also decrease rice production though there is certain amount of surplus of rice for decades long good weather conditions.¹⁵ Furthermore, it is almost impossible to find out any good crop convertible from rice for Korean farmers. In short, the internal conditions do not seem to be adequate to introduce any policy to decrease rice production in Korea. Escaping from political theory as much as possible without harming willingness of rice producing farmers is another task of Korean rice policy.

The external condition is more severe. There are not many choices. Either open the domestic market to the world market by accepting

¹⁴ Lee(1997) estimated elasticities of cultivated acreage with respect to the changes in rice prices as 0.12.

¹⁵ According to MAF(Nongmin Shinmun 2002 Nov. 18) rice production was decreased by 11% than previous year due to the low temperature of July and 2.8% decrease of planted area in 2002.

tariffication or increase the MMA quota that is all. Both of the alternatives are enforcing decrease of domestic production and price. This will result in decrease of rice farmers' income. Direct payments program was introduced. Nevertheless, this program seems to be an obstacle for the structural improvement by keeping small size farms remain in rice sector. Time is not Korean side either. The government should prepare proper policy in a year. At this juncture, the government is struggling for device of good policy.

In spite of the situation that does not need the policy enforcing the decrease of rice production, Korean government has to shout the necessity of decreasing rice production and has to pursue structural improvements policy for the competitiveness of rice farming by giving subsidies or payments which are not compatible between policy objectives. These seem to be some of the contradictions and dilemma which Korea has to overcome in rice policy to flow along global tide of liberalization smoothly. To borrow econometrics jargon, Korean rice policy functions seem to have several specification errors.¹⁶

Introducing demand oriented policies as well as traditional supply oriented policies might open a new avenue for Korean rice policy.

REFERENCES

- Ahn In Chan, *Agricultural Policy*, Sun Jin Munwhasa, 1996.
- Choi Jung Sup, *Korean Agricultural Policy after the Establishment of World Trade Organization*, *Journal of Rural Development* Vol.20 No.2, KREI, 1997.
- Kim Jae Soo, *Korean Agriculture and Trade*, *Korea Farmers & Fishermen's Weekly News*, 1999.
- KREI, *Policy Measures for the Development of Rice Industry*, 2002.
- Lee Jaeok, *The Effect of Import Liberalization of Agricultural Markets and Future Directions of Agricultural Trade Policies in Korea*, *Journal of Rural Development* Vol. 20 No2, KREI, 1997.
- MAF, *Annual Report on Agricultural Policy*, 2002.

¹⁶ In the simultaneous equation system, demand function seems to be missing. Some variables seem to be included or excluded and some variables seem to have wrong signs in supply function.