

THE PROGRESS AND CONSTRAINTS OF AGRICULTURAL MARKET LIBERALIZATION IN KOREA

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I. Introduction

The world trade order is being newly shaped by multilateralism represented by the WTO at the time of deep integrations of regional economic blocks such as the EU, APEC, NAFTA and others. Two streams, contrasting in some aspects, are becoming major factors to lead further trade liberalization of related countries.

From the early stage of economic development, Korea has attained rapid economic growth by depending on foreign trade. In terms of total value of foreign trade, Korea was ranked 12th in 1994. Since Korea is still highly dependent on foreign trade, changes in international trade order will substantially influence the Korean trade and economy.

Considering the sharp complementary relationships of the Korean economy with other major trading partners and increasing import demand according to economic and population growth, it is evident that Korea will remain as a big market for exporting countries. Agricultural imports of Korea will certainly increase as a result of Uruguay Round Agreement demanding the elimination of non-tariff barriers through tariffication as well as the reduction of internal supports to agricultural products.

The most challenging tasks of Korea are to accelerate import liberalization and to properly finish structural adjustments of

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agriculture within a short period of time. In most developed countries, structural adjustments among industries have continued for more than 100 years after industrial revolution.

In this context, this paper will describe in a detailed way the progress and constraints of agricultural market liberalization in Korea including the commitments at the WTO.

II. Agriculture and Agricultural Policy Structure in Korea

1. Agriculture in General

Until the 1960's when the first five-year economic plan started, Korea remained as a traditional agrarian country. As the production of non-agricultural sectors exploded and a massive number of farmers migrated to urban areas in the process of rapid economic growth, the importance of agriculture has diminished continuously. Agriculture accounts for only 5.6 and 10.8 percents of GNP and total employment in 1995 (Table 1). During the 25 years, the GNP share of agriculture and the share of farm employment have declined to the levels of a quarter and one fifth of the initial year, respectively. Such rapid changes in industry composition in a short period of time can hardly be found in other countries.

TABLE 1 Trends of GNP Share of Agriculture and Share of Farm Employment

Unit: %		
Year	GNP Share of Agriculture	Share of Farm Employment
1970	23.3	44.7
1975	22.0	37.5
1980	12.7	28.4
1985	10.6	20.9
1990	7.4	15.5
1995	5.6	10.8

Source: Major Statistics of Agriculture, Fishery, and Forestry Ministry of Agriculture and Fishery, Korea, 1996

In particular, a huge number of farmers and rural population have migrated to urban areas not only by the pushing effects of the agricultural sector but by the pulling effects of the manufacturing sector. Since the migration has concentrated mainly on young farmers, current labor force in rural areas are extremely aged, which is seriously aggravating the agricultural productivity. It has been the prevalent tendency among farmers that they didn't want their children to succeed farming.

As a result of the decrease in the total farm population, many changes have occurred in the agricultural sector, including crop intensity, farm wage and farm mechanization.

Regarding agricultural lands, 2.0million hectares which is 20 percent of the total land area in Korea were cultivated in 1995. Out of the total cultivated land, 61 percent was devoted to the production of rice. Given the limited arable land and the mentality of land holding for increasing values of property and retirement, the average farming size remains at a low level. In 1970, the average farming size was only 0.9 hectare. There were marginal increases to 1.0 hectare and 1.3 hectares in 1980 and 1995, respectively. The small farming size is a major restriction of increasing the productivity of agriculture through the attainment of economies of large scales.

Another striking feature of Korean agriculture is that farmers heavily depend on agricultural income. The ratio of non-farm income to total farm household income was 21.5 percent in 1980, while it stood 31.8 percent in 1995. This ratio is contrasting to the non-farm incomes in neighboring countries such as Japan and Taiwan where the proportion of non-farm income had already reached 60.5 and 52 percent in 1990.

2. Agricultural Production and Food Consumption

In parallel with the changes in food consumption pattern of shifting from crops to higher quality food meats, vegetables and fruits, production of non-crop commodities has increased sharply. For the period of 1965~1995, production of vegetables, fruits, and livestock has increased 6.63, 7.3, and 10.8 times, respectively. A sharp increases in domestic livestock production led to tremendous amount of feedgrain import during the period.

TABLE 2 Trends of Agricultural Production in Korea

Unit: 1,000MT

Year	Major Crops		Vegetables	Fruits	Meats
1965	6,424	(3,501)	1,576	310	98
1970	6,937	(3,939)	2,653	423	165
1975	7,654	(4,669)	4,767	543	225
1980	5,324	(3,550)	7,676	833	423
1985	6,990	(5,626)	7,763	1,464	583
1990	6,635	(5,606)	8,677	1,766	773
1995	5,476	(4,695)	10,586	2,300	1,061
'95/'65	0.85	(1.43)	6.63	7.32	10.81

Source: Major Statistics of Agriculture, Fishery, and Forestry, MAF of Korea

Notes: 1) Major crops include rice, barley, wheat, soybean, potato, and others.

2) () under the column of major crops represent the quantity of rice production

The changes in commodity mix of agricultural production in Korea can be explained by the fact that vegetables, fruits, and meats are relatively capital and technology intensive products suitable to the factor endowment conditions of Korea and demanding lower production costs. It can be regarded that the Korean agricultural production has been naturally adjusted based on the principle of international division of specialization.

Today, Korean consumers spend about 23 percent of their income on food consumption. As described previously, the Korean diet pattern has changed significantly in terms of volume and quality. As shown in Table 3, per capita total grain consumption has decreased while that of wheat increased, which reflects the trend of westernization in the Korean diet pattern. Per capita consumption of rice has been in a declining trend and the trend will be continued in the future. It is forecasted that per capita consumption of rice will decline further to the level of 92~94kg and 85~88kg in the year 2000 and 2004, respectively(Korea Rural Economic Institute). Therefore, the total quantity of rice consumption will decline despite of the increase in population.

TABLE 3 Trends of Per Capita Food Consumption in Korea

	Unit: Kg							
	1965	1970	1975	1980	1985	1990	1995	'95/65
Food Grain	188.8	219.4	207.3	195.2	181.7	167.0	158.2	0.84
Rice	121.8	136.4	123.6	132.4	128.1	119.6	104.3	0.86
Wheat	13.8	26.1	29.5	29.4	32.1	29.8	33.4	2.42
Meats								
Beef	1.0	1.2	2.0	2.6	2.9	4.1	6.7	6.70
Pork	1.9	2.6	2.8	6.3	8.4	11.8	14.8	7.79
Potatoes	7.3	10.2	7.1	6.3	3.1	3.3	3.4	0.47
Fruits	11.3	13.1	15.0	21.8	35.8	41.0	55.7	4.93
Vegetables	45.5	59.9	62.5	120.3	98.6	132.6	153.4	3.37
Milk	-	4.6	-	10.8	23.3	42.8	47.8	10.39
Oil and Fats	-	1.5	2.7	5.0	9.2	14.3	-	

Source: Major Statistics of Agriculture, Fishery, Forestry MAF of Korea, 1996
Food Balance Sheets, Korea Rural Economic Institute, various issues

For 30 years, per capita beef and pork consumption has increased by 6~8 times. Considering per capita total meat consumption of 29.9kg of Japan in 1993, increasing trend of meat consumption in Korea has reached a saturation point. As compared with Japan, increasing rate of per capita consumption of fruits and vegetables will be declining in the future.

Total value of agricultural import increased by more than 22 times from 469 million U.S. dollars in 1970 to 10,520 million U.S. dollars in 1995. In particular, agricultural import in 1995 increased by 21 percent compared to the previous year. Tariffication and allowances of market access agreed at the UR was the main reason for the sharp increase in agricultural import in 1995, the initial year of the UR implementation.

Major categories of agricultural import by Korea are 1) wheat import for food purpose, 2) feedgrain import according to increasing domestic livestock production, 3) beef import, 4) fruits and vegetables import to meet the changes in food consumption pattern, 5) import of

TABLE 4 Trends of Agricultural Imports of Korea

	Unit: million US dollars						
	1970	1975	1980	1985	1990	1994	1995
Agricultural and Livestock Products	341	1,020	2,215	1,791	3,751	5,425	6,898
Cereals	24	703	1,261	1,157	1,646	1,513	1,898
Vegetables	0.3	1.8	0.8	9.1	24	152	140
Fruits	0.6	2.2	7.8	7.4	36	250	315
Livestock Products	10	15	66	64	446	932	1,224
Oil and Fats	19	54	125	153	183	NA	NA
Forestry Products	128	274	912	629	1,665	2,562	2,778
Fishery Products	0.4	10	37	91	370	727	843
Total	469	1,304	3,164	2,511	5,789	8,716	10,520

Source: MSAFF, MAF of Korea various issues

processed food according to the preference of convenient food.

On the other hand, Korea is exporting small amount of various agricultural products to Japan, the United States, Hong Kong and other countries (Table 5). Even though the current value of agricultural exports is negligible compared to the value of imports, the Korean government has made substantial efforts to increase agricultural exports to compensate part of the losses resulted by agricultural market liberalization.

In summary, the agricultural structure in Korea has not been fully adjusted in line with the external demand for rapid internationalization of its agriculture. Since the major emphasis has been put on increasing rice production under the goal to attain self-sufficiency, the infrastructure of capital and technology intensive products has been underinvested and is not strong enough. Furthermore, Korean agriculture is vulnerable to market liberalization because of the inefficiency arising from small scale farming. Aging farm population is another constraint of attaining higher productivity of agriculture. Recently, the issue of ensuring food security has emerged as a national concern as even the rice production is on a decreasing trend.

TABLE 5 Trends of Agricultural Exports of Korea

	Unit: million US dollars		
	1993	1994	1995
Agricultural Products	694.7	835.7	1,089.6
Fruits	44.6	60.4	60.0
Vegetables	73.7	79.0	111.3
Taste Food	307.5	348.3	445.2
Livestock Products	114.7	116.1	155.6
Forestry Products	453.5	511.1	504.6
Fishery Products	1,496.5	1,585.8	1,721.8
Total	2,759.4	3,048.7	3,468.6

Source: MSAFF, MAF of Korea, 1996

3. Agricultural Policies

The first systematic attempt to develop Korean agriculture was made as a part of the first Five-Year Economic Plan in the early 1960's. The main objective of the agricultural policy was to increase rice production. Self-sufficiency of rice was a prerequisite for price stabilization for urban workers and the accumulation of foreign reserves which was desperately needed for economic development at that time. In the 1960's, with investment in fertilizer and pesticide, rice production increased rapidly. In addition, rice production continued to grow by the introduction of high yield varieties of rice in the 1970's.

As a part of efforts to increase rice production and to stabilize consumer prices, a two-tiered pricing system for rice was introduced in 1969. Under the system, the government purchases rice from farmers at a higher price. When the market price goes up, rice held by the government is sold at a lower price to stabilize the market price. In the 1980's, the dual price system for rice was maintained. However, the system was responsible for the huge government's budget deficit and the accumulation of rice stock held by the government.

Much criticism was raised regarding the dual price system of rice in that the system severely distorted efficient resource allocation. Since it is also scheduled to reduce price supports according to the UR, the dual price system of rice in Korea should be modified by substituting less price distorting support measures.

Regarding trade policy, import of major agricultural products were restricted to protect domestic producers until recently. Despite such protection policy, agricultural imports began to increase at an accelerating speed since the mid-1980's because of the shortage of domestic food supplies. Increased consumption of meats, fruits, vegetables oil and processed food were satisfied by import. The expansion of domestic livestock production resulted in a huge amount of feed grain import.

However, the rapid increase in agricultural imports since the mid-1980's can be largely attributed to the launching of internationalization and open-door policies following trade friction with trading partners. In the case of beef imports, the market was re-opened in 1988 as a consequence of bilateral trade dispute with the U.S. and the panel of dispute settlement in the GATT. In addition, as a part of an effort to avoid possible U.S. designation of Korea as a "Priority Foreign Country" suspected of exercising unfair trading practices, the Korean government announced a three-year(1989~1991) market opening schedule to liberalize imports of 243 agricultural, fishery and forestry products in 1988.

Thereafter, Korea's agricultural import liberalization proceeded further because of the graduation from the Gatt Article XVIII;B in 1989. At the time of the graduation, the Korean government promised to eliminate its remaining import restrictions which were legalized by Korean trade laws or otherwise bring them into conformity with the GATT provisions by July 1, 1997. It was also recommended that phasing out its remaining restrictions should be carried out in a generally even manner under two three-year liberalization programs. According to this GATT obligation, Korea drew up a three-year (1992~1994) market liberalization program of 137 products. In the process of setting up the second three-year liberalization program, the Uruguay Round was concluded and market liberalization schedules of all agricultural products was negotiated together as a package.

III. WTO Commitments of Korea

The Uruguay Round negotiation on agriculture can be regarded as the most effective multilateral trade talk in history in that it was agreed to eliminate non-tariff barriers by adopting tariffication and to harmonize internal support policies with international disciplines for the first time. Despite some reservation about the effectiveness of the Uruguay Round, it will be a momentum to move toward market-oriented agricultural trade by reforming the world agriculture.

As an important exporter of manufacturing products and a growing market for agricultural exports, Korea participated actively at the UR negotiation and agreed to all the provisions in spite of the difficulties of domestic agriculture.

1. Reduction of AMS

Total AMS of 1.72 trillion won(base year; 1989~1991) is to be reduced by 13.3 percent over 10 years to the level of 1.49 trillion won in the year 2004. Almost 90 percent of AMS to be reduced centers on the price support for rice. The rest of the 10 percent is supports for barley, soybeans and corn. Each subsidy on grapes, silkworm and milk is less than 10 percent of the total production value of each product and thus excluded from the subsidy reduction under the de minimus provision applied to developing countries. Interest concessions and subsidies for fertilizers are also excluded from AMS reduction since their total amount is less than 10 percent of the total value of agricultural production according to the same rule. Lastly, Korea classified investment aids and subsidies for agricultural inputs as exempted from reduction under the developing country provision.

2. Tariffication: Agricultural Market Liberalization

Korea agreed to the elimination of non-tariff barriers and market liberalization of all agricultural commodities with the exception of rice according to the tariffication provision applicable to developing countries. Tariffs and newly established tariff-equivalents are to be reduced by 26.7 percent(required reduction rate; 24 percent) on an average over 10 years.

In the case of rice, the most important commodity in Korea, a grace period of ten years was allowed. However, minimum market access for rice import was applied. Access is to be increased gradually from 51 thousand tons, which is one percent of base period domestic consumption beginning in 1995, to two percent by 2000, and four percent by 2004. Postponement of tariffication for rice required application of domestic supply control and an agreement not to use export subsidies. These conditions are the same as those required for the postponement of tariffication for rice in Japan.

All other agricultural commodities which were subject to import restrictions and tariffs before the conclusion of the UR can be classified in two groups. First, there is a group of 125 items whose import restrictions were controlled by special domestic laws(Grandfather Clause). Second, there is a group of 95 items whose import restrictions were covered by periodic announcements of importing schedules by trade laws. The first category includes items such as rice, barley, soybeans, corn, potatoes, and sweet potatoes. These were subject to tariffication, and tariff-equivalents will be reduced by ten percent over ten years(minimum reduction rate of each commodity of developing countries). For barley, potatoes, and sweet potatoes, three percent of base period consumption was provided as minimum market accesses(MMA) which will be expanded to five percent by 2004. For corn and soybean, for which substantial amounts were already imported, the import quantities of base period were secured by the provision to maintain current market accesses(CMA). The importation of 79 products for which MMA or CMA were suggested will be managed by state trading systems. The Korean government will impose an agreed mark-ups within the amount of tariff rate quota.

The other group includes commodities for which Korea had previously agreed to open the markets or bring conformity with the GATT rules by July 1997, according to the 1989 agreement related to the Balance of Payment(BOP) consultation under the GATT Article XVIII. These items include beef, pork, poultry, citrus, dairy products, peppers, garlic, onions, sesame seed, and others. For beef, import quotas will be maintained until 2000 and a higher tariff will be imposed on the above-quota imports. Beef market will be completely liberalized in 2001 with the tariff rate of 41.2 percent. For pork, poultry

and oranges, markets will be liberalized in 1997 and higher tariffs applied to the above-quota imports of these items will be reduced to current levels by 2004.

Items such as peppers, garlic, onions, and sesame seed will be subject to low within quota tariffs and higher above-quota tariffs which are almost equal to the difference between the domestic and international prices(ceiling binding).

A flexible tariff structure combining ad valorem and specific tariffs will be applied to barley, soybeans, peppers, garlic, onions and others.

TABLE 6 Format of Market Liberalization of Major Products

Commodity	Year	Tariff Equivalent (% or won/kg)	Access Quantity (MT)	Tariff on Access Quantity(%)
Rice	1995	-	51,307	5
	2000	-	102,614	5
	2004	-	205,228	5
Barley	1995	333% or 410 won/kg	14,150	20
	2004	229.7% or 361 won/kg	23,582	20
Soybeans	1995	541% or 1,062 won/kg	1,032,152	5
	2004	487% or 956 won/kg	1,032,152	5
Corn	1995	365%	6,102,100	3
	2004	328%	6,102,100	3
Potatoes	1995	338%	11,286	30
	2004	304%	18,810	30
Oranges	1995	99%	15,000	50
	2004	50%	57,017	50
Beef	1995	44.5% and 70% mark-up	123,000	20
	2001	41.25% and 0% mark-up	225,000	20
Pork	1995	37%	21,930	25
	1997	33.4%	18,275	25
	2004	25%	-	
Poultry	1995	35%	7,700	20
	1997	30.5%	6,500	20
	2004	20%	-	

Source: Country Schedule of Republic of Korea

TABLE 7 Agricultural Import Liberalization Schedule of Korea

Year	Number of Items (HS 10 digits)	Commodities
1995	154	barley, corn, soybeans, potatoes, sweet potatoes (tariffication): apples, fresh grapes, cheese, peppers, garlic, sesame seed, skimmed milk powder, whole milk powder
1996	14	grape juice, apple juice, butter
1997	30	pork, poultry, silk, orange juice
2001	8	beef, cows(live animals)

Source: Country Schedule of Republic of Korea

3. State Trading

Because of dynamic non-equivalence of tariff and quota system, there might occur some cases that tariff equivalents become restrictive, not allowing the imports of MMA or CMA of related commodities if the world prices increase. To avoid such possibilities, importing countries must suggest market accesses with lower tariffs in the process of tariffication. However, importers who happen to have licenses to import in the importing countries will grasp all the economic rents. This is the background in which the Korean government is trying to operate the state trading systems for the commodities to which MMA or CMA are allowed. It is scheduled that importing agencies designated by the Korean government collect the economic rents and return it to the agricultural sector.

Several problems are expected to occur in maintaining the state trading systems. In case of some commodities, since Korea guaranteed to import the quantities of market accesses, there might be importing losses when the world prices are higher than domestic prices. In addition, because the quantities of market accesses were calculated based on the year of 1988~1990 and imports had increased since then in many cases such as corn, there is a need to expand

market accesses to stabilize domestic agricultural prices. There are other problems as to how to allocate the quantity of market access among different tariff lines since market accesses were determined comprehensively with fewer H.S. digits.

IV. Progress and Constraints of Agricultural Market Liberalization in Korea

1. Progress of Agricultural Import Liberalization

As described above, agricultural imports of Korea have increased more than 22 times during the past 25 years which is equivalent to 13 percent annual growth on an average. As a result, the rate of agricultural import liberalization has sharply increased (Table 8). In 1996, out of 1,312 agricultural and livestock products, only 52 products remained import restricted and the import liberalization rate was 95.8 percent.

TABLE 8 Agricultural Import Liberalization Rate

	Unit: %					
	1970	1985	1990	1992	1994	1996
Total	68.4	72.6	80.4	87.2	92.4	95.6
Agricultural and Livestock Products	71.1	16.1	83.4	88.4	92.7	95.8
Forestry Products	93.4	94.9	95.0	97.5	97.9	100.0
Fishery Products	54.2	56.0	58.2	74.2	87.0	92.2

Source: Ministry of Agriculture and Forestry of Korea

The result of rapid import liberalization is also properly reflected in the trend of self-sufficiency rates of major products. Except for rice, pork, chicken, and drinking milk, the self-sufficiency rates have decreased substantially (Table 9). In case of wheat and corn, the proportions of domestic production were only 0.3 and 1.1 percent in 1995. Accordingly, the total self-sufficiency rate of major grains

including rice, barley, wheat, corn, soybeans, and potatoes has decreased from 80.5 percent in 1970 to 25.9 percent in 1996. The self-sufficiency rate of beef also decreased sharply after its market was re-opened in the mid-1980's.

TABLE 9 Self-sufficiency Rates of Major Commodities

Unit: %

Year	Rice	Barley	Wheat	Corn	Soybean	Beef	Pork	Chicken	Milk
1970	93.1	106.3	15.4	18.9	86.1	100.0	100.0	100.0	100.0
1980	95.1	57.6	4.8	5.9	35.1	93.1	98.9	100.0	100.0
1990	108.3	97.4	0.1	1.9	20.1	53.6	100.0	100.0	100.0
1995	96.3	67.0	0.3	1.1	9.9	51.2	96.6	97.9	90.9

Source: Ministry of Agriculture and Forestry of Korea

2. Constraints of Agricultural Market Liberalization

The most outstanding effects of agricultural market liberalization is the decrease in domestic prices of agricultural products and farmers' incomes. As domestic agricultural productions shrink according to the decrease in the prices, resources employed in the agricultural sector should move freely to other industries without much restrictions for the increase in national welfare after trade liberalization. However, agricultural resources in Korea including labor force and agricultural land have such immobile characteristics that the resources will be under the state of unemployment if agricultural productions decline due to market liberalization. Unlike Japan and Taiwan, Korean farmers are highly dependent on agricultural incomes for their farm household incomes and thus the adverse impact of agricultural trade liberalization will be much more significant in Korea.

Secondly, domestic prices of agricultural products are expected to fluctuate more widely than before since tariffication lets the price instabilities in the world market transmit into the markets of importing countries. If the world production of particular product increases remarkably and the price goes down to a lower level while

the production in the related importing country is poorly harvested in a certain year due to weather conditions, farmers' incomes in the importing country will be sharply decreased and vice versa. This is a feature of tariffication that the price instabilities in the world market directly influence the prices and incomes in the importing countries. Considering price stabilities is as important as price supports, how to stabilize agricultural products after market liberalization is another task to be solved in Korea.

Another factor which will contribute to the price instabilities in Korea after market liberalization is the foreseeable concentration of domestic production on fewer agricultural products having relative international competitiveness such as fruits, vegetables, pork, and poultry. The regular occurrences of excess supply and plummeting prices will be observed after the agricultural market liberalization.

Thirdly, the flexibility of choosing agricultural policies has become severely narrowed since all the agricultural policies in each country are to be regulated under the disciplines of the WTO. It will take more budget and time for the attainments of the same effects than before since the cheapest policies that are also less resistible by taxpayers such as import restrictions are prohibited.

Lastly, ensuring food security is becoming a national concern in Korea as even the domestic rice production has been continuously decreasing recently. Large parts of paddy fields are being converted to profitable agricultural products, and some rice paddies are idled because of a shortage in rural labor force. It is a possible scenario that Korea has to import rice more than minimum market access determined at the UR negotiation because the decreasing trend of rice production may surpass the decreasing domestic consumption in the near future.

In case of rice, as the price and trade distortion policies are eliminated in every country, rice price in the world market could be stabilized due to the absorption of price instabilities in the world market by rice importing and exporting countries. However, this stabilization effect might be more than offsetted by the effect of transmitting domestic instabilities to the world rice market by large countries such as China. In addition, because of the intrinsic characteristics of the world rice market including the lower proportion of trade out of the total world production, inelastic supply and

demand responses to price changes, geographical concentration of the world production, and thin markets classified by tasted and quality of rice, the world rice market is unstable by far compared to other grains. Production capacities in rice exporting countries are also restricted by the problems of shortage of agricultural water and environmental regulations. Accordingly, it might not be easy to secure constant supplies of rice with stable price from the world rice market.

V. Prospect for Policy Reform

The main goal of agricultural policies in Korea has been to attain self-sufficiency of major agricultural products by direct involvement of the government in the market. There had been various types of regulations in the agricultural sector including the regulations related to agricultural land uses.

After the conclusion of the UR negotiation and launch of the WTO, the Korean government deeply realized that fundamental improvement of agricultural productivities is an utmost task in line with the internationalization of Korean agriculture. In this context, the government is reshuffling policy priorities putting much emphasis on structural adjustment of agriculture rather than direct supports for farmers. All the regulations and involvements by the government which restricted farmers' decision makings are going to be relaxed to the maximum possible extent.

The Korean government announced "Agriculture and Fisheries Development Plan" in 1994 in order to efficiently cope with newly changed agricultural circumstances. To support the plan effectively, the government established a new tax of "Special Tax for Rural Area" to collect 15 trillion won(18.7 U.S. billion dollars)over the next 10 years. Since the plan is suggesting the main frameworks of Korean agricultural policies in the future, some detail of the plan need to be described to understand the directions of agricultural reforms in Korea.

The main contents of the "Agriculture and Fisheries Development Plan" can be classified as 1) policies related to the improvement of agricultural productivity to make Korean agriculture viable in the age of complete market liberalization, 2) policies related to the development

of rural areas to improve living and economic environments of farmers, and 3) various medical insurance, medical services, and pension systems.

Regarding the productivity improvement policies, the plan focuses on the fostering of various types of farming especially in the rice, livestock and horticultural sectors. In the regions where enlargement of farming scale is relatively easy, the government will activate rent-lease systems of agricultural lands and support farmers who want to purchase additional lands to enlarge farming scales. In case that small size farming is inevitable, production of higher quality commodities including organic agricultural products will be encouraged.

For the enlargement of farming scale, the government relaxed the ceilings of farmland ownership of 3 hectares. Large part of agricultural land was designated as "agricultural promotion zones", and these zones will be the main target of future investments for structural adjustments including land reorganization, consolidation, and irrigation. The rest of agricultural land of "non-promotion zones" will be allowed to use for other purposes to increase farmers' income.

The plan also included improvement of agricultural marketing systems, mechanization of farming, large new investments on R&D and others. In order to compensate the decrease in farm income arising from the reduction of price supports for rice, the Korean government is now considering a commodity loan program for rice and a direct income payment system. Lastly, the establishments of many regional and commodity wise organizations of farmers will be encouraged to increase the effects of policy implementation.

VI. Summary and Conclusion

The past twenty-odd years really have been a period of big transition for Korean agriculture threatened by unfavorable internal economic environments as well as unsurmountable external market opening pressures.

The Korean agricultural sector still has a number of chronic structural problems including small sized subsistence farming and vulnerable infrastructure of agricultural production. As the food self-

sufficiency rate has been decreasing rapidly, food security is becoming a national concern in Korea.

Despite the domestic difficulties of agriculture, Korea actively participated at the Uruguay Round negotiation on agriculture and committed a full range of market liberalization. After the establishment of the WTO, a series of government programs had been introduced to strengthen international competitiveness of Korean agriculture. Laws and regulations of the agricultural sector are being arranged in line with the international disciplines. Korean agriculture obviously will be moving toward market oriented industry with few direct interventions by the government. If the goals of agricultural reform policies are effectively achieved in the future, Korea will be able to play much bigger roles for the free agricultural trade in the world market.

Considering current situation of Korean agriculture, it is believed that the commitments by Korea at the Uruguay Round was the maximum tolerable concession that can be digested politically and economically in Korea. Accordingly, it seems to be premature to demand further liberalization of Korean agricultural markets. The "Flexibility" clause at the APEC should be fully recognized in such a manner that special conditions in each countries must be taken into account.

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