

# Overview of Agricultural Situation and Policy in Korea

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## 1. Introduction

Korea went through radical changes from an agricultural society to an industrial society within one generation. In the process of economic development, the share of agriculture in GDP decreased sharply from 26% in 1970 to 2.4% in 2011. Until the 1960s, Korea suffered from chronic food shortages. However, thanks to the Green Revolution in the 1970s, improvement in plant varieties, increase in chemical fertilizer use as well as farm mechanization, Korea's productivity increased greatly to provide a stable supply of staple crops. Amidst all these changes in agriculture, the income gap between the urban and rural areas continued to widen. Therefore the government pursued price support policies such as border measures and a government procurement program in most cases to maintain farm household income at adequate level. Such policies caused widening disparities between prices of imported and domestically produced major agricultural products.

Under these circumstances, the Uruguay Round (UR) negotiations in agriculture agreed in 1993. The reduction commitment of tariffs and subsidies agreed in the UR negotiations threatened the existence of Korean agriculture itself, and created a sense of crisis among Korean farmers. The Korean government should have reformed its agricultural policies to be consistent with WTO rules, which requires reduction in domestic price support. The Korean government made the utmost effort to fit its agricultural policies into the market system and to enhance the competitiveness of Korean agriculture. This transition took place in a relatively short period and inevitably resulted in an unstable farm income in Korea. In fact it took 50 to 100 years for developed countries to carry out similar reforms. But Korea had to face the liberalization of agricultural markets at a critical moment of industrialization and restructuring in the agricultural sector.

Korean farmers, still in a very difficult situation, are paying close attention to the extension of Free Trade Agreements (FTAs). FTA, with major trading partner, is considered to be inevitable for the continuous growth of Korean economy, which is heavily dependent on foreign trade. However the market liberalization pressures through implementation of WTO rules and greater market opening of FTA are the biggest challenges that Korean agriculture are facing.

Korea's agricultural policy has faced significant changes over the course of the nation's modern history. The nation was a largely agrarian economy prior to industrialization. Agriculture had to provide food and jobs to the population, but weak production capabilities resulted in food aid from the United States. During the industrialization period, the

agricultural sector provided inexpensive labor for the development of the manufacturing industry, and began to achieve self-sufficiency in the national food supply through the Green Revolution. The period after the late 1980s is characterized as the era of globalization. The Korean economy became increasingly integrated into the international trend of market liberalization, and the agricultural sector had to adapt to the international standards. The government has initiated a number of agricultural policy reforms, reorganizing laws and policies for the market orientation of agriculture. In particular, the globalization and liberalization that started in the late 1980s was a big shock to the agricultural sector, and such changes provided momentum for agricultural policy reforms and structural adjustment since the 1990s.

In order to cope with the changing market situation, the basic direction of agricultural policy has shifted to one that is oriented towards consumers. The government raised the trust and satisfaction level of consumers by building up the production and distribution base for safe and high-quality agricultural products. It also improved the safety examination, labeling of product origins, and the quality assurance system of agricultural products. The updating of the policies on farmer's income and rural community was also a big change in agricultural policy. The government introduced a direct payment system for rice farming in 2000 after examining similar direct payment schemes adopted in advanced countries. In 2002, it introduced a direct payment system to complement the income of rice farmers. In 2005, the government enacted the Special Law for the Improvement of Quality of Life to improve the welfare in rural villages by updating related policies. To revive the stagnant rural economy, the government improved related rules and systems so that urban capital can flow into rural areas. The government has also aggressively pursued policies aimed at promoting rural-urban exchanges and green tourism.

It is anticipated that the domestic and international environment surrounding Korean agriculture will change even faster than ever before. The changes in the surrounding environment, such as shift towards high-quality and diversified food consumption patterns, expansion in the scope of agriculture into new sectors such as life industry and its upstream and downstream businesses, changes in marketing channels, emergence of consumer-oriented society that places importance on healthy, safe, reliable and environment-friendly products, emergence of low carbon green industries, deepening of international competition, and stabilization of local autonomous governance will require modifications in the direction and means in implementing agricultural policies. Accordingly, seeking new paradigms and strategies in agriculture and rural development is very important in continuing agricultural policy reform.

## **2. Agricultural Situation in Korea**

## 2.1 Share of agriculture in GDP

The importance of agriculture in the economy has been decreasing with its share in domestic GDP declining to 2.4% in 2011, while its share of employment is 6.0%. In Korea, an unprecedented rate of industrialization resulted in wide growth-rate gap between agricultural sector and non-agricultural sector. Such a trend was accelerated in the course of the implementation of the UR commitments on agricultural market liberalization. As a result, the share of agriculture in national GDP showed a sharp decline from 26.2% in 1970 to 7.8% in 1990 to 2.4% in 2011.

Table 1. Share of agriculture in GDP

	1970	1980	1990	2000	2011
National GDP (A)	2,812	38,479	191,284	600,159	1,240,504
Agricultural GDP (B)	737	5,576	14,998	24,939	30,096
% (B/A)	26.2%	14.5%	7.8%	4.2%	2.4%

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

## 2.2 Changes in agricultural population

As the share of agriculture in national economy had been reduced, the agricultural population in Korea fell drastically from 14.4 million or 44.7% of the total population in 1970 to 6.7 million or 15.6% in 1990, and 3 million or 6% in 2011. Considering that the agricultural population in developed countries is about 2 to 3% of the total population, the share of the agricultural population in Korea is still relatively high.

Another important point to note is the increasing average age of the agricultural population in Korea. The share of agricultural population over 60s (elderly farmers) in Korea has increased from 7.9% in 1970 to 43.6% in 2011. Indeed, the aging issue of the agricultural population in Korea is very serious.

Table 2. Share of agricultural population

	1970	1980	1990	2000	2011
Total population (A)	32.2	38.1	42.9	47.0	49.8
Agricultural population (B)	14.4	10.8	6.7	4.1	3.0
% (B/A)	44.7%	28.4%	15.6%	8.6%	6.0%
Total agricultural population (C)	14.4	10.8	6.7	4.1	3.0
Over 60 years (D)	1.14	1.14	1.19	1.33	1.31
% (D/C)	7.9%	10.6%	17.8%	32.4%	43.6%

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

Such phenomenon is due to the fact that people belonging to the older generation are having difficulties to find job opportunities and tend to continue farming activities, while those belonging to the younger generation leave rural villages for higher income and better opportunities in the city. The trend has continued throughout the industrialization, and the average age of the agricultural population has increased rapidly.

## 2.3 Changes in farmland size

Korea is a land scarce country with high population density, where only 17% of area is being used for farmland. Most farms are small family farms with less than 2 hectares of agricultural land. The Korean agriculture is characterized as small-sized family farming. Based on the principle that only farmers should be allowed to own farmland, the Korean government limited the maximum size of farmland that can be owned to 3ha per farm household until the early 1990s.

Total farmland size was 2.3 million ha in 1970 but it decreased to 1.7 million ha in 2011, since about 20,000 ha to 30,000 ha of farmland was converted into industrial or housing land annually. In the meantime, the agricultural population declined faster than the farmland reduction. As a result, the average land size per farm gradually increased from 0.93 ha in 1970 to 1.46 ha in 2011.

Table 3. Change in farm size

	1970	1980	1990	2000	2011
Total planted land (million ha)	2.3	2.2	2.1	1.9	1.7
Average farm size per farmhouse (ha)	0.93	1.02	1.19	1.36	1.46
Number of farm over 3ha (thousand)	37	31	44	85	97

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

Recently the Korean government has started easing the farmland possession ceiling recognizing that the ceiling does not help to enhance international competitiveness. As a result, the number of farmers owning farmland bigger than 3ha has gradually increased from 44 thousand in 1990 to 97 thousand in 2011.

## 2.4 Changes in production share by commodity

Table4 displays the share of agricultural production value by major commodities. The share of rice in total agricultural production has decreased from 33.1% in 1991 to 19.4% in 2011. However, the share of livestock products has greatly increased from 22.8% in 1991 to 34.7% in 2011. The main cause of such a trend is that more and more farms are turning to capital-intensive and consumer-oriented agriculture.

Table 4. Share in production values by farming type

	1991	1995	2000	2011
Rice	33.1	26.1	33.0	19.4
Livestock	22.8	23.0	25.4	34.7
Fruit	8.2	11.7	8.1	8.5

(Unit: %)

Vegetable	20.6	25.2	21.1	19.7
Agriculture Total	100.0	100.0	100.0	100.0

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

## 2.5 Rice dominant farming system

Even though the importance of rice has been reduced in Korea, rice still takes dominant positions in agricultural production and farm economy. Almost 60% of total arable land area is allocated to rice farming and approximately 65% of total farm households are cultivating rice. Consequently, rice, as a single commodity, accounts for 19.4% of total agricultural production value in Korea. However the importance of rice in Korean agriculture has gradually reduced since 1970s but has risen since the mid-1990s and still remains as a major source of agricultural income and farm employment. The reason for that rebound is that 1) rice was exempted from the tariffication in the UR, 2) government has maintained price support system for rice, so that farmers thought rice farming would remain profitable compared with other liberalized commodities. 3) Rice farming management is relatively easy and time saving due to mechanization, so older farmers could continue rice farming. In 2011, income from rice farming is a 66.0% of income from farming and 19.2% of total farm household income as shown in Table 5.

Table 5. Importance of rice farming in Korea (2011)

Classification	Item	Value	Share (%)	
			B/A	
Areas (thousand ha)	Total arable area (A)	1,698	56.5	
	Paddy field (B)	960		
Farm households (thousand)	Total farm households (A)	1,163	64.5	
	Rice farm households (B)	750		
Production value (billion won)	Total agricultural production (A)	41,284	19.4	
	Rice production (B)	8,009		

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

Table 6. Rice farming as a major income source

(Unit: thousands Won)

Year	Farm Household Income (A)	Income from Farming (B)	Income from Rice farming (C)	Ratio (%)	
				C/A	C/B
1970	256	194	109	42.5	56.1
1980	2,693	1,755	837	31.0	47.7
1990	11,026	6,264	3,631	32.9	57.9
2000	23,072	10,897	8,220	35.6	75.4
2005	30,503	11,815	5,917	19.4	50.0

<b>2011</b>	30,148	8,753	5,780	19.2	66.0
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Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

## 2.6 Agricultural trade and food self-sufficiency

Korea has long been a large net food importing country in the world. Its share of agro-food imports in total imports is around 4.5%, while that of exports is less than 1%. Imports of agricultural products grew 47 times from US\$ 0.5 billion in 1970 to US\$ 23.4 billion in 2011. During the same period, export of agricultural products increased from US\$ 0.1 billion to US\$ 5.1 billion. The agricultural trade deficit has also increased from US\$ 0.4 billion in 1970 to US\$ 18.3 billion in 2011.

Although import of agricultural products rose sizably in terms of absolute value, its share in the total national imports has dropped sharply. The share of agricultural products in the total national imports fell from 27.8% in 1970 to 4.5% in 2007. During the same period, the share of agricultural products in Korea's exports decreased significantly from 11.1% to 0.9%. It is mainly because of development strategy of industrialization and export-orientation which has been employed by Korean government since 1960s

Table 7. Agricultural trade and food self-sufficiency

(Unit: billions US\$, %)

		<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2011</b>
Import	Nationwide(A)	1.8	21.6	69.8	160.4	524.4
	Agriculture (B)	0.5	3.1	5.4	6.8	23.4
	B/A(%)	27.8	14.4	7.7	4.2	4.5
Export	Nationwide(A)	0.9	17.2	65.4	172.3	555.2
	Agriculture (B)	0.1	1.1	1.1	1.3	5.1
	B/A(%)	11.1%	6.4%	1.7%	0.8%	0.9%
Balance of payment	Nationwide(A)	-0.9	-4.4	-4.4	11.9	30.8
	Agriculture (B)	-0.4	-2	-4.3	-5.5	-18.3
Quantity-based Food self-sufficiency (%)		80.5	56.0	43.1	29.7	22.6

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

The quantity-based self-sufficiency rate of grain has fallen from 80.5% in 1970 to 22.6% in 2011. In 2007, self-sufficiency rate for barley was 22.5%, 1.1% for wheat, 0.8% for corn, and 6.4% for beans. Rice, the main staple food grain in Korea, is almost self-sufficient level. Average self-sufficiency rate for rice was 96% in the recent three years of 2009~2011. Considerable amounts of most of food grains except rice are imported from overseas market.

## 2.7 Farm household incomes

Average income per farm household has increased from 256 thousand won in 1970 30,148 thousand won in 2011. Income sources for farm households have shown the changes since 1970s. Farm household incomes are broadly categorized into agricultural income and non-agricultural income. Major sources of non-agricultural income are divided into income from off-farming activities and transfer income from government and family.

Agricultural income accounted for over 75% of total farm household income in the 1970s but fell to 29% in 2011 whereas the share of non-agricultural income sharply increased from 24% in 1970 to 71% in 2011. The proportion of non-agricultural income to total farm household income is continuously increasing, contributing to the stabilization of farm household income. Actually, off-farm income has played a vital role in stabilizing the farm household income because agricultural income is inherently unstable.

Recently, the growth of agricultural income has been stagnated or dropped in Korea. It is mainly because increasing in agricultural imports since 1995 have led to falling prices of agricultural products. Also, high fuel and material prices, as well as rising interest burdens have increased farm operation costs. Thus, it has been suggested that non-farm income should be increased so as to increase farm household income. In this regard, Korean government has long tried to create new income sources for farm household. Although various policy efforts are under way to provide non-farm income sources for Korean farmers through establishment of rural industrialization, promotion of agro-food industry, green tourism etc, there are still no visible achievements so far.

The percentage of transfer income has continuously increased, accounting for 28% of total household income in 2011. Some of the transfer income comes from government direct subsidy to farmers. An example of this is the increase of public subsidies like rice income compensation program that began in 2005. According to government statistics, the proportion of public subsidies was about 10% of total farming household income. Smaller farms received more benefits from other types of public subsidies such as pensions, health insurance, and other social transfer payments in terms of percentage, while larger farms received more public subsidies related to farming activities.

Table 8. Farm household income and composition of income sources

(Unit: thousand won)

Year	Farm household income (A)	Agricultural income (B)	Income from off-farming (C)	Transferred income (D)	Ratio (%)		
					B/A	C/A	D/A
1970	256	194	62	0	76%	24%	0%

1980	2,693	1,755	938	0	65%	35%	0%
1990	11,026	6,264	2,841	1,921	57%	26%	17%
2000	23,072	10,897	7,432	4,743	47%	32%	21%
2005	30,503	11,815	9,884	8,803	39%	32%	29%
<b>2011</b>	<b>30,148</b>	<b>8,753</b>	<b>12,946</b>	<b>8,446</b>	<b>29%</b>	<b>43%</b>	<b>28%</b>

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

Until the mid-1990s, the proportion of farm household income to urban household income was over 95%. However, the income gap between urban and rural households has widened since 1995. In other words, the income gap between urban and rural households is increasing due to the market liberalization following the UR as well as the difference in the productivity growths. In 2011, the average income of farm household was only 59% of that of the residents in cities.

Table 9. Farm household income relative to urban household income

(Unit: thousand won)

Year	Farm household (A)	Urban household (B)	Ratio (A/B)
1990	11,026	11,319	0.97
1995	21,803	22,933	0.95
2000	23,072	28,643	0.81
2011	30,148	50,983	0.59

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

### 3. Overview of the Korean Agricultural Policy

#### 3.1 Historical changes of the Korean agricultural policy

This section presents a brief outline of the time periods and characteristics of the Korean agricultural policy. The criteria used to distinguish the policy time periods are based on changes of economic conditions, policies, and agricultural structure. If the time periods are classified by applying these criteria, the following five policy periods can be distinguished: first, system organization period from 1948 to 1967; second, production expansion period from 1968 to 1977; third, policy conflict period from 1978 to 1985; fourth, transition period from 1986 to 1994; and fifth, policy reform period from 1995 until now. The characteristics of the policy time periods are summarized as below.

The first period (1948~1967) was a system organization period for firmly building up the foundation of the country after the launch of Korea's first government. However, due to the outbreak of the Korean War in 1950, social confusion continued until the mid-1950s. Farmland reform was implemented from 1950 to 1957, and it thus contributed to both the abolition of the landlord-tenant relationship and the establishment of self-employed farmers. The national economy, in short, was an agricultural economy prior to industrialization, and it required the supply and accumulation of capital for industrialization. Since agriculture had contributed to alleviating potential unemployment, the ratio of those employed in the



industries of agriculture, forestry, and fisheries stood high at around 80%, and agriculture continued to wield an overwhelming influence in the national economy.

The role of agriculture was focused on solving food shortage. Some of the major policies were centered around government procurement of rice, the U.S. assistance of surplus grains according to the U.S. Public Law 480 (PL480, introduced in 1956), and the food production expansion plan. Although the U.S. assistance of surplus agricultural products had greatly contributed to solving the immediate problem of food shortage, it had the effect of lowering the prices of Korea's agricultural products, thus worsening the economy of farm households. Moreover, the government's plan to increase grain production did not bring tangible results because of lack of necessary means of support (i.e., technological development and farmland expansion).

Policy-wise, it was a period of establishing an institutional base to carry out modern agricultural policies. The Rural Development Administration, the Maritime Affairs Office, and the Korea Forest Service were inaugurated, and a comprehensive agricultural cooperative system was founded through the enactment of the Agricultural Cooperative Law (1961). At the industrial level, discussions were held to improve the agricultural structure, and 'The Basic Agricultural Law (1967)' was enacted to foster self-employed farmers.

The second period (1968~1977) can be characterized as the agricultural production expansion period. The number of farms and farmers that had been increasing ever since the establishment of the republic had reversed its course to a decline from 1968, and the total area of farmland began to decrease from 1969. With the rapid progress of industrialization, great amounts of land and labor started to be utilized for industrial purposes rather than for agriculture. The main focus of the agricultural policy in this period was how to maintain the self-employed farming system that had been created through farmland reform in the process of urbanization and industrialization. To this end, a proposal was made to enact a farmland law, but it fell apart due to the public opinion against the bill.

Since the food problem resulting from industrialization remained serious, the goals of the government's agricultural policy were aimed at increasing food production and modernizing the production process. The means to achieve this were development and dissemination of agricultural technologies, provision of guidance to farming villages, creation and consolidation of farmland, development of agricultural water resources, seed improvement, and mechanization of agriculture. In addition to these, various policies were adopted: rural development through supply of electricity and expansion of roads, farm income assistance through a special project to increase farmers's and fishermen's income, and price support through a high-rice-price policy and a barley price forecasting procurement system to stabilize its price. A new, high-yield rice variety called Tongil Byeo was developed and supplied from 1971. As a result, rice yields increased greatly and made self-sufficiency of

rice possible in 1977.

Also, a new village development movement called ‘Saemaul Undong’ began in 1970, giving rise to a boom in rural development. During this period, farm household income increased significantly, and the farm economy became more stable than any other period, thanks to increased production of and the price support for rice. Because of Saemaul Undong, the daily living environment in rural villages and farmers’ understanding of the economy started to change immensely. However, farmland leasing started to increase without improvement of the agricultural structure that is based on poor self-employed farming.

It can be said that the third period (1978~1985) was a period of conflicting interests for agricultural policy. This is because the Korean agriculture had experienced a lot of conflicting interests while making a transition to commercial farming after achieving food self-sufficiency. The direction of economic policy during this period shifted from high growth to stable growth and from government-led protectionist policy to private sector-led open market policy. The direction of agricultural policy, too, shifted from a policy of increasing agricultural income through increased production of staple grains and price support to a policy of increasing farm income through non-farm earnings, diversified agriculture, and cultivation of cash crops and products such as meat, fruits, and vegetables. As a result, rural industrial development began with the formation of agricultural industrial complexes, and cultivation of seasoning vegetables and animal husbandry were greatly expanded. In 1978, the government liberalized the domestic market for agricultural imports.

Unfortunately, in 1980, rice production fell 36% due to damage from cold weather. The following year, Korea had to import rice. Furthermore, in 1984, the increase in beef imports caused a sharp drop in the price of beef. As the prices of seasoning vegetables and livestock products became extremely volatile, farm household economy worsened and debts increased significantly. Food self-sufficiency rate fell, and agricultural imports increased sharply. The so-called open market policy, which aimed to stabilize agricultural commodity prices through imports and compensate reduced income through non-farm earnings and diversified agriculture, caused harm to the economy of farm households.

Under such a background, a comprehensive plan was put together in March, 1986 to revive the rural economy. The main contents of the plan were expansion of agricultural industry zones to increase non-farm income, provision of more tax benefits to factories in farming regions, supply expansion of agricultural assistance funds to increase farm income, and strengthening of the project to foster future farmers.

The fourth period (1986~1994) can be called policy transition period. The year 1986 saw the start of the Uruguay Round (UR) negotiations, which determined the course of global trade liberalization. South Korea graduated from the GATT-sanctioned balance of payments protection after the country posted trade surplus from 1986 to 1989. At the same time, the

pressure to open the agricultural products market started to become more intense. With the conclusion of Uruguay Round negotiations at the end of 1993, Korean agriculture could not but adopt an open market policy. As a result, it became an impending task to improve the industry structure of agriculture in step with the progress of market opening and increase the industry's international competitiveness.

Having examined measures to improve the agricultural structure in response to market opening, the government announced three comprehensive plans during the period from 1989 to 1994. The first plan was the Comprehensive Plan to Develop Farming and Fishing Villages, which was announced in April, 1989. The plan called for the creation of a farmland management fund to help finance purchase of farmland and accelerate the structural improvement of agriculture. In addition, the plan introduced an agricultural corporation system. Other key policy goals included in the plan were development of non-farm income sources, development of residential zones, and development of the agricultural products processing industry and export businesses. As the second phase of the comprehensive plans, the Plan for Structural Improvement of Farming and Fishing Villages was announced in 1991. As a more specific version of the 1989 comprehensive plan, the second-phase plan has set the goal of investing 42 trillion won for structural improvement of farming and fishing villages during the 10-year period from 1992 to 2001. Succeeding the two comprehensive plans announced since 1989 was the Plan for Agricultural Policy Reform and Development of Farming and Fishing Villages of 1994. The plan set the goal of completing the 42-trillion-won structural improvement project for agriculture and fisheries by 1998, ahead of the original completion year of 2001, and expanded the investment fund by creating a 15-trillion-won special tax for rural development.

The fifth period (1995~present) can be called the period of agricultural policy reform. Korean agriculture, which had already entered a period of great transition with the inauguration of the World Trade Organization (WTO), experienced difficulties again at home and abroad. Due to the financial crisis of 1997, agricultural material prices had rapidly been rising since the beginning of 1998. Consequently, the circumstances for agriculture greatly worsened, and farms went bankrupt. The government, therefore, put highest priority on stabilizing the economy of farm households and recovering the rural economy. To do so, the government enacted the Special Law on the Reduction of the Debts Owed by Farmers and Fishermen and postponed the reimbursement of debts owed by farm households and reduced or exempted the interest.

The basic direction of agricultural policy made a turn from the previous government's farm scale expansion to fostering of environmentally-friendly agriculture based on small and mid-sized farming and enhancement of quality. In particular, the government forcefully carried out measures to reform the distribution of agricultural products. This included expansion of direct transaction, diversification of transaction methods at public wholesale

markets, and introduction of a distribution ordering system. In 1998, the government enacted the Agriculture and Rural Communities Basic Act and embarked on reforming agriculture related organizations. In 2000, the government merged the National Agricultural Cooperative Federation, the National Livestock Cooperatives Federation, the Korea Ginseng Cooperative Federation; and the Rural Development Corporation, which manages water supply facilities, and the Farmland Improvement Association.

With the beginning of 2000, negotiations for Free Trade Agreement (FTA) started to make progress amid a global wave of trade liberalization. Although Korea was passive about FTA initially, the country saw a turning point with the conclusion of an FTA with Chile in 2002. From the following year on, Korea actively took part in the negotiations. As of May, 2013, the number of countries with which Korea has signed a free trade agreement that went into effect stands at 46. These include USA, 27 EU members, 10 ASEAN countries, 4 EFTA countries, India, Peru and Chile. FTA negotiations are also underway with many countries, which include China and Japan.

Table 10. Transition of the Korean agriculture and policy direction

Period	Main Issues and Policy Direction
Before Industrialization (before 1960s)	➤ Creation of owner farming through “Land Reform”
	➤ Food shortage and food aid
	➤ Efforts on enhancing agricultural production: land development
Industrialization Period (1960s~1980s)	➤ Expansion of grain production
	➤ Increased productivity through “Green Revolution”
	➤ 1980s: entering the era of commercial agriculture
Restructuring Policies (1990s~2000s)	➤ 1990s: React sensitively to the market demand after conclusion of the UR
	➤ Structural Reform Measures in Agricultural Sector
	➤ 2000s: Clear growth and declines by item(rice vs. livestock products), farm income problem, rural development and welfare
	➤ Decreased rice consumption and increased consumption of fruits and meat
	➤ Expanding market opening through FTAs
Paradigm shift since 2008	➤ Policy coverage: primary industry → primary, secondary, service industry
	➤ Policy customer: producer → producer, consumer, food processing enterprises
	➤ Agricultural market: domestic market(defensive) → export market(offensive)
	➤ Support method: average → selection and concentration

During the industrialization period, the main goal of agricultural policy was to increase food self-sufficiency through the expansion of agricultural production and “Green Revolution.” Specific plans included land reclamation projects, improvement of irrigation system, and research and training programs for increasing productivity. However, uneven development focusing on industrialization left deep gaps between agriculture and other industries, and rural and urban regions.

The period after the conclusion of the UR negotiation is characterized by globalization. A series of agricultural policies implemented after the launch of WTO in 1995 demonstrate the transition of the Korean agricultural policies toward more market-oriented system. The focus of agricultural policies has been on enhancing competitiveness and the capacity of the Korean agriculture to react sensitively to the market demand while coping with emerging challenges, including, in particular, promotion of environmentally friendly farming for sustainable agriculture, maintaining rural vitality, and establishing social safety net in rural areas.

The emphasis among the objectives of agricultural policies in Korea has changed over the period. From the 1950s to the 1970s, efforts were concentrated primarily on increasing productivity of crops as well as achieving self-sufficiency in rice. Since the 1980s, the issue of income parity between farm and urban households has emerged following GDP growth and industrialization. In the late 1980s and through the 1990s, the focus shifted to structural adjustment and competitiveness in order to prepare for the opening of agricultural markets. In recent years, the emphasis has shifted to a broader set of objectives related to enhancing the quality of life in rural areas, agricultural competitiveness, environment, farm household income and food safety.

Particularly, the Lee Myungbak government established in 2008 has been pursuing a more offensive approach in agricultural policy. It started to put emphasis not only on production of primary agricultural products but also on processing of primary products and service industry in rural areas. It also expanded policy customers from producers to consumers, and food processing enterprises. Escaping from a defensive approach focusing on protection of domestic agricultural market from imported products, it set an ambitious goal for expanding export of its agricultural products, and is working on selecting agricultural entities having greater chance of success and concentrating government support to them.

The new government(Park Gunhye) established in 2013 would be expected to follow the same directions and guidelines of agricultural policy conducted by the previous government. New government has emphasized that the major policy directions mentioned below will be conducted during its term of office: (1) adopting creative economy into Korea's agricultural and food industry to increase value-added in agricultural and food industry; (2) establishing solid social safety net for farm income and management; (3) promoting welfare to make rural villages an attractive area to live; (4) establishing a distribution structure satisfying both consumers and producers; (5) supplying safe agricultural and livestock products.

Table 11 Five Major missions and strategies for agricultural development by new government in 2013

Major Mission	Policy direction and strategy
Adopting creative economy into Korea's agricultural and food industry	<ul style="list-style-type: none"> <li data-bbox="472 1770 1291 1860">➤ Developing IT convergence business models including those for remote greenhouse control, quality management and traceability, and interactive R&amp;D road maps for farmers and the public</li> <li data-bbox="472 1860 1291 1913">➤ Inducing Korea's sixth industrialization by integrating agriculture with processing and tourism industry and advancing the</li> </ul>

	livestock industry into a sustainable, eco-friendly industry by promoting use of animal waste as resources.
Establish solid social safety net for farm income and management	<ul style="list-style-type: none"> <li>➤ (Full-time farmers) Alleviating management instability by expanding agricultural disaster insurance and introducing revitalization programs, while innovating agricultural management to induce cost reduction.</li> <li>➤ (Medium-scale farmers) Fostering joint management bodies with village farming cooperatives, and develop professional management organizations by creating a range of non-agricultural income sources, such as processing and tourism.</li> <li>➤ (Small and elderly farmers) Providing social welfare supports such as pension, health insurance and basic livelihood security system, and enable farmers to better prepare for retirement with direct payment for farming transfer and farmland pension.</li> </ul>
Promoting welfare to make rural villages an attractive area to live	<ul style="list-style-type: none"> <li>➤ Expanding town and township based public services (rural child-care facilities) and village living infrastructure (communal homes, joint meal service facilities and establishing rural traffic systems to connect such facilities.</li> <li>➤ Ensuring customized welfare for rural villages by establishing the “Safety Management and Disaster Prevention Guarantee for Farmers Act”, expanding farmland pensions for the aged, and strengthening support for the settlement of multi-cultural families in rural areas.</li> <li>➤ Invigorating local communities under the initiatives of local residents and supports of urban residents through nationwide expansion of the “Rural Village Campaign for All”</li> </ul>
Establishing a distribution structure satisfying both consumers and producers	<ul style="list-style-type: none"> <li>➤ Making a distribution environment where farmers receive more and consumers pay less, by reducing distribution stages though expanding consumer-participatory direct dealings and systemization of distribution system to a more producers’ group centered one.</li> <li>➤ Setting price stabilization bands for key items, while refraining from direct market intervention, at times of excess in price on the basis of the price band, holding consultations between consumers and producers under the Committee on Supply and Demand to adjust the supply and demand</li> </ul>
Supplying safe agricultural and livestock products	<ul style="list-style-type: none"> <li>➤ Maintaining close cooperation structure between the Prime Minister’s Office and relevant ministries, such as a standing committee, to prepare joint response manuals for food safety accident.</li> <li>➤ Implementing a general food information network through cooperation with related government agencies, such as the KFDA, and establish a network for real-time information on food traceability and harmful food</li> </ul>

Hereafter is the more detailed explanation of recent focuses among the Korean agricultural policies under the WTO system.

### 3.2 Recent Focuses in the Korean Agricultural Policy

#### (1) Reforming agricultural structure to enhance competitiveness

To enhance competitiveness, the Korean government has implemented a number of agricultural programs that reduce production cost through farm consolidation, foster competitive farm entities, and encourage farmers to specialize, as well as promote the development of agricultural technology.

Particularly, the Korean government has recognized that creating large scale commercial farming is essential to enhance competitiveness of agricultural sector. In this regard, the Korean government has recently eased strict regulations on farmland ownership and transactions. Long-lasting principle that only farmers should be allowed to own farmland is now being eased. Since 2003, the government has permitted agricultural corporations to acquire farmland and prepared conditions for large-scale commercial agriculture to start operation.

Actually Korea maintained strict farmland ownership rules under the land-to-tiller principle, such that farmers could not own more than three hectares of farmland until 1992. In order to get above the former three-hectare ownership limit, some farm families used strategies such as assigning land holdings to different family members. In 1993, the farm size ownership limit was increased from three-hectares to 10 hectares within the Agriculture Development Region (ADR). However, with permission from the county head, farmers could own up to 20 ha inside the ADR. In 1999, the ownership limit outside the ADR was increased from three ha to five ha. In 2002, the limit on farm size was abolished both inside and outside of the ADR, and farmers may now own farmland without any size limitations. Also the Framework Act on Agriculture and the Rural Community was revised in 1990 to allow farmland to be owned by agricultural corporations under the conditions that investment by farmers represented at least half of the total investment, the representative of the corporation is a farmer and more than half of the executive board is farmers.

To facilitate farm enlargement and farmland mobility, a new farmland banking system, which is run by the Korean Rural Community and Agricultural Corporation (KRC), was introduced in 2005. It provides financial assistance and information to farmers who wish to own or rent farmland from the KRC or others through the acquisition, temporary holding, resale or lease of farmland. Of course non-farmers have been prohibited from holding farmland in principle. They may hold more than one hectare of farmland acquired by inheritance or out-migration as long as they lease it to KRC for more than five years. This change has been in effect since October, 2005 as a result of the revision of the Farmland Act. Its aim is to minimize the fragmentation of farmland and encourage young full-time farmers to increase the scale of their farms more easily through a farmland banking system.

To encourage new entrants, the Korean government has selected new farmers and supported them with loans. To promote specialized farmers, it provided special loans to rice, livestock, fruit and vegetable farmers to support expansion of farm size, purchase of new machines, and renovation of orchard facilities. To promote R&D in the agricultural sector, the Agricultural Research and Development Promotion Center (ARPC) was established in 1995. Through 2002-2012, the government budget for R&D increased at an average rate of 9%, which is higher than the national budget increase rate of 5%.

Although a series of policies aimed at enhancing competitiveness resulted in intended

results, they also faced setbacks during the financial crisis in 1997, which caused the price of oil and feedstuffs to skyrocket. Korea is highly dependent on the imports of these products and with higher prices, the overall management cost of agriculture increased sharply. In addition, the terms of trade deteriorated as prices of agricultural products fell, following the drop in demand. As a result, many farm households went bankrupt or suffered from increased debts. Such damage had been even more severe for large-scale farms.

## (2) Expansion of direct payment programs and crop insurance programs

After the launch of WTO system in 1995, a series of agricultural policy reforms have been conducted in Korea. Particularly coping with the agricultural market liberalization, Korean government has introduced the various kinds of direct payment programs after introducing the initial direct payment program for aged farmers' retirement in 1997. The government has employed the 10 types of agricultural direct payment programs until now. Currently, seven kinds of direct payment programs are put in operation in 2013. The share of budget on direct payment has been increased from 0.8% in 1997 to 23.6% in 2012. However the share of budget on direct payment is still low. Direct payment programs employed in Korea have been concentrated on rice farming. The budget share of direct payments for rice farming accounted for 95% of total direct payments in agricultural sector.

Even though seven kinds of direct payment programs are operated currently, these can be categorized into three types as follows: (1) direct payment for income support; (2) direct payment for environmentally-friendly farming or multifunctional agriculture; (3) direct payment for structural adjustment and creating large scale farm.

Table 12. Outlines of direct payment programs in Korea

<b>Types of direct payment</b>	<b>Introducing -ending period</b>	<b>Major objective</b>	<b>Eligible producer/product</b>
Early retirement of aged farmers	1997-current	Structural adjustment	Aged farmer/rice
Environmentally-friendly farming practice	1999-current	Environmentally friendly farming	Licensed farmer/all products except livestock
Paddy-Field environment conservation	2001-2004	Environmentally friendly farming	Rice farmer/rice
Rice farmers' income stabilization	2002-2004	Income stabilization	Rice farmer/rice
Set-aside of paddy-field	2003-2005	Structural adjustment	Rice farmer/rice



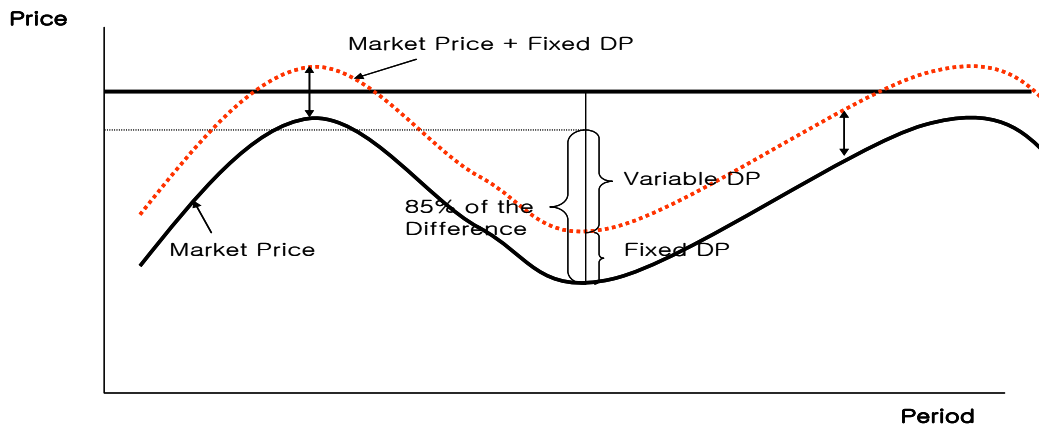
Environmentally-friendly livestock farming practice	2004-current	Environmentally friendly farming	Livestock farmer/livestock
Less-favored area	2004-current	Multifunctional role of agriculture	Less-favored area
Landscape conservation	2005-current	Multifunctional role of agriculture	Landscape area
Rice income stabilization payment	2005-current	Income compensation	Rice farmer/rice
Direct payments for upland farmers	2012-current	Income compensation	Farmers/26 commodities such as barley, wheat, corn, onion, red pepper etc.

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA)

Background of expanding the direct payment program, in Korean agricultural sector is mainly because of the necessity of policy change from price support into direct income support under the WTO rules. Reducing the income disparity between urban and rural areas has been a very important policy objective in Korea. In this regard, a number of different direct payments have been introduced since the late 1990s, with a variety of objectives. The first of these was introduced in 1997 in the form of early retirement payments. Farmers over 65 years of age who were willing to sell or rent their land to full-time farmers for a period of more than five years were eligible to receive a lump-sum payment calculated as the difference between annual farming income and rent during three years. A direct payment to support rural areas with less favorable production and living conditions was introduced on a pilot basis in 2004, became a national program in 2006.

Following the 2004 rice negotiation, a direct income support mechanism for paddy field was introduced. As AMS for rice accounted for 90% of total AMS in Korea's UR AMS reduction commitment, rice farmers have been heavily affected by implementing the AMS reduction commitment. As a result, income support for rice farmers through the government purchase program has been significantly restricted. Therefore, rice farmers in Korea have been asking the government to introduce direct payment program as stipulated on the WTO's Agreement on Agriculture. Direct payment for paddy field includes both fixed and variable payment systems from the 2005/06 crop year. To be eligible for the fixed payment, paddy fields had to be in production during the period 1998-2000. The variable payment is given only to farmers who are currently producing rice on registered farmland. The amount of the variable payment is determined according to the difference between a target price and each year's postharvest price. If the postharvest price is lower than the target price, farmers receive 85% of the difference, after deduction of the fixed payment, which is multiplied by a fixed national reference yield to calculate the payment per hectare.

Figure 1. Rice income stabilization direct payment



In the long-term perspective, in order to overcome instability of farm income and to establish comprehensive income safety-net for farm household, the Korean government is working on designing “income stabilization scheme for farm household” by putting together most of the existing direct payment programs. Under such scheme, each year, farm households registered for the programs are paid certain percentage of the difference between target income and annual agricultural income.

Crop insurance program for protecting farm household income from natural disasters and pests has been reinforced. The eligible products of the insurance scheme for crops and fruits, which started in 2001, increased to 35 varieties in 2012, adding green chilli, squash, roses, chrysanthemum and raspberry. The government plans to extend the product coverage to 50 commodities in 2014.

### (3) Promotion of environmentally-friendly farming

Until the end of 1980s, the main policy focus in agriculture was increase in production and productivity of grain. However, with growing public awareness on environmental issues, consumers’ interests in food quality and organic food have increased. In this regard, the Korean government set the promotion of environmentally friendly farming as a major policy goal since the mid 1990s. The ultimate goal is to maintain sustainable agricultural production through coexistence of agriculture and environment, preserve the environment, and ensure food safety. Currently, environment-friendly farming is recognized as a key element to enhancing competitiveness of the Korean agricultural products under the more open market.

Since 2001, the Korean government has carried out a five-year plan for the promotion of environmentally-friendly farming. It designated environmentally friendly farming zones and has provided support to farmers who produce environmentally-friendly agricultural products through a direct payment scheme. The beneficiaries of this scheme are required to

take training on environmentally-friendly farming and record the amount of chemicals they use.

Stores that handle only the organic agricultural products are being operated in metropolitan areas to give consumers better access. Department stores are also encouraged to expand the corners allotted for these products. The growing prevalence of e-commerce also gave rise to the door-to-door delivery services and allowed producers to sell their products to consumers directly. Although certified environmentally-friendly agricultural products accounts for 5% of the total agricultural products distributed in the market, the government intends to increase the rate up to 10% by 2013.

#### **(4) Expanding off-farm income sources**

Compared to other Asian countries, Korean farm households record lower share of off-farm income in total farm household income. In Korea, the off-farm income account for 40.3 % of total farm household income in 2010. In Japan and Taiwan, the off-farm income share is 56.7% and 78.2% respectively in 2010. It means that compared with other countries, Korean farmers' farm income are more influenced by agricultural price fluctuation. In this regard, the Korean government is focusing on increasing the source of off-farm income by promoting rural village tours and establishing industrial complexes in rural areas due to very vulnerable agricultural income structure reflected in a lower off-farm income.

Table 13. Share of off-farm income in farm household income

(Unit: %)

<b>Year</b>	<b>Korea</b>	<b>Japan</b>	<b>Taiwan</b>
2010	40.3	56.7.	78.2.

Source: Ministry of Agriculture, Food and Rural Affairs(MAFRA), Statistical Yearbook 2012

The government has implemented programs to expand off-farm income sources, including establishing Agricultural Industrial Complexes and Regional Specialty Products Complexes. These allow the industrial sector to use agricultural resources in a specific region more efficiently and provide another income source for rural communities. This project started in 1984 and approximately 400 Agricultural Industrial Complexes will be built by 2013.

The Korean government has encouraged diversified programs such as agro-tourism in order to promote off-farm income and has supported infrastructure investments for agro-tourism in selected counties. During 2002~2012, more than 600 Green Tour Villages were built with government support and regional festivals were promoted as tourist attractions.

#### **(5) Recruiting young farmers and promoting specialization**

Every year, about 5,000 farmers retire from agriculture. To encourage new farmers, the Korean government has implemented several policies. Between 1981 and 2003, 122,000 young farmers were selected and financially supported by government policy fostering young farmers. This policy has been reinforced since 2004. Every year, about 1,000 new farmers under 35 years can receive a loan up to 300 million won to start farming and repay it over the next 15 years.

To promote specialized farmers, special loans were provided to rice, livestock, fruit and vegetable farmers to support expansion of farm size, the purchase of new machines, and the renovation of orchard facilities.

#### **(6) Maintaining rural vitality and establishing social safety net**

Despite heavy investment in agriculture since 1990s, it has been very difficult to avoid decrease in rural viability due to continuous migration of rural population into urban areas. Expanded market liberalization by DDA and FTA negotiations has also rendered rural areas more vulnerable to external elements and thus made it necessary to design comprehensive policy for enhancing viability of rural areas. Against this background, in 2005, the Korean government designed “comprehensive policy for enhancing standard of living in rural areas and rural viability.” Under the objective of attaining balanced development between rural and urban areas and making rural areas residential area for at least 20% of population, the Korean government has implemented a series of policies in upgrading infrastructure, welfare, education in the rural areas up to the level of urban areas. The Korean government is working to guarantee the basic standard of life for all farmers including the less competitive ones who quit farming. In this regard, subsidies for pension, medical insurance, and tuition fees are being expanded to farmers. It also plans to set rural service standards which set minimum service standards in rural areas. All these standards will be reflected into relevant policy areas.