## **Direction of Measures on the Korean Rice Industry**

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## **Explanatory Note for Translation**

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http://www.mafra.go.kr/rice/02/01\_01.html

# 1. Achievements and Limits in 20-Year (1995-2013) Rice Import Tariffication Suspension

- Continuous investments in production infrastructure
- The investments on social overhead capital such as readjustment of arable land, expansion and maintenance of irrigation facilities, drainage improvement for constantly flooded areas and water development have been made, amounting to 1 trillion 310 billion Korean won yearly (total 26 trillion 270 billion Korean won).
- \* Size of investments: 11 trillion 454.9 billion Korean *won* (from 1995 to 2004)  $\rightarrow$  14 trillion 810.7 billion Korean *won* (from 2005 to 2014)

Table 1. Continuous investments in production infrastructure

Classification	1995	2005	2013
Area of water development(well-irrigated paddy) (in sum, ha)	403,353	484,293	572,909
Percentage of well-irrigated paddy (%)	33	44	59
Area of drainage improvement (in sum, ha)	65,921	129,286	160,844
Percentage of drainage improvement	22	43	53
Maintenance of irrigation and drainage canal (in sum, km)	115	4,243	7,634

#### • Investments on mechanization and reduction of manpower

- With the exception of drying storage, 94% of mechanized agriculture has been achieved by supporting the purchase of agricultural machineries and operating agricultural machineries bank.
  - \* Working hours per unit area has been decreased by 64% compared to that of 1995

whereas income per working hour has increased 3.3 times.

\* For every farming household, approximately 19 days of labor is required each year (for rice farmers, average of 1.19 ha and 8 hours of daily work)

Table 2. Investments on mechanization and reduction of manpower

Classification	1995	2005	2013
Percentage of			
mechanization of	82.9	89.9	94.1
agriculture (%)			
Working hour per 10a	34.70	20.81	12.68
of paddy			
Income per working	15,531	26,239	50,738
hour (Korean won)			

#### Investments for economies of scale

- Economies of scale for professional rice farmers: From 1995 to 2013, 5 trillion 540 billion Korean *won* of financial loan was allocated to 48,000 farm households.
- \* Expansion and collectivization of rice paddy to 139,000 ha and raising 70,000 households of professional farmers (average cultivation area of 6 ha) resulted in 50% of the entire rice production.
- \* Cultivation area for professional rice farmers: 2.5 ha / household (1995)  $\rightarrow$  4.2 (2005)  $\rightarrow$  5.9 (2013)
- \* Income of professional rice farmers: 14,224,000 Korean won / household (1995)  $\rightarrow$  22,430 (2005)  $\rightarrow$  37,958 (2013). The data shows that economies of scale reduce manpower cost and cost for trusted farming and thus, cause a decrease in direct production cost such as fertilizers, chemicals, labor costs excluding rent and interest.
- \* Direct production cost for farm households with more than 5 ha of cultivation area is 364,000 Korean won, which is 19% lower than the average of the entire farm household (447,000 Korean won) and 29 % lower than that of those with 0.5 ~ 1 ha of cultivation area (In 2013, National Statistical Office).
- Promotion of field management system: bundling up farm households by 50 ha in order to achieve economies of scale in production and distribution and to promote effectiveness
- \* From 2009 to 2014, 158 places were selected and joint seeding culture(共同育苗場) and wide pest prevention machineries(廣域防除機) were being allocated.
- Stability of income and effectiveness of distribution by food policy reform in 2005
  - The rice purchase system which functioned to support the price and to reserve the

### stocks was being abolished.

- Instead, in order to stabilize farmer's income, policies such as rice income direct payment program (fixed·variable), target price system (目標價格制), and public stock holding program for the purposes of food security have been implemented.
- \* When the market price falls under the aimed price, 85% of the difference will be preserved.
- \* In 2010, harvest price of rice dropped to 138,231 Korean won / 80kg however farm households received 165,305 Korean won at average which is 97% of aimed price (170,083 Korean won / 80kg) at the time.
- Decreasing distribution cost by simplifying the structure based on rice processing complex ("RPC")
- \* Since 1991, 328 RPC has been established (currently merged to 234 RPC) to be in charge of 64% of rice distribution.
- \* 20% of distribution cost has been reduced by simplifying distribution structure (total agricultural product: 42%).
- \* Fund for purchasing rice from farm households has been supported to RPC in order to stabilize harvest price of rice.
- \* Fund for Purchase: 860 billion Korean  $won~(1995\sim) \rightarrow 379.2$  billion Korean  $won~(2000\sim) \rightarrow 918.4$  Korean  $won~(2005\sim) \rightarrow 1$  trillion Korean  $won~(2009) \rightarrow 1$  trillion 200 billion Korean  $won~(2010\sim2013)$
- Despite the limited financial resources, agricultural budget was concentrated on supporting rice farmers
- \* Although the production amount of rice (8 trillion Korean *won*) is 18% of the total agricultural production (44 trillion Korean *won*), rice-related budget (4 trillion 3 billion Korean *won*) takes up to 32% of the total agricultural budget (13 trillion 500 billion Korean *won*).

## 2. Evaluation and Factors for Limits

- Continuous investment and the promotion on the economies of scale to prepare for the end of tariff suspension
- Due to productivity improvement, the difference between the price of foreign rice and that of domestic rice has decreased.
- \* The price of domestic rice compared to that of American Medium Grain Variety(中粒種)(CIF): (2005) 4. 9 times higher → (2013) 2.8 times higher

- \* The price of domestic rice compared to that of Chinese Medium Grain Variety(中粒種)(CIF): (2005) 4. 2 times higher → (2013) 2. 1 times higher
- Rice consumption per capita annual and for table use have decreased by 37% and 28%, respectively and such tendency led to decrease in rice production and cultivation area.
- \* Rice for food consumption: 4,777 tons (1995)  $\rightarrow$  3,815 tons (2005)  $\rightarrow$  3,435 tons (2013) Decrease in rice consumption as well as increase in the amount of imported rice following tariff suspension.
- \* Amount for MMA: 51,000 tons (1995, 1% of the consumption)  $\rightarrow$  226,000 tons (2005, 4.4% of the consumption)  $\rightarrow$  409,000 tons (2014, 7.96% of the consumption)
- Ageing rural population and deterioration of irrigation facilities causing the shrinking of agricultural infrastructure
  - The percentage of farmers older than 65 years old increased 2.2 times.
- \* The percentage of famers older than 65 years old: 16.2% (1995)  $\Rightarrow$  29.1% (2005)  $\Rightarrow$  35.6% (2012)
- The percentage of infrastructures older than 30 years is about 58% (41,000 items among the total of 70,000)
- Suspension of farmer's income due to stagnation of rice price and increase of rice production cost
  - Among the total farm household's income, rice consists of merely 12%.
    - \* The percentage of income from rice:  $18.3\% (1995) \rightarrow 14.8\% (2005) \rightarrow 11.8\% (2012)$
- The continuous increase of rice production cost due to increase of price in fertilizer, pesticides and agricultural machineries.
- \* Production cost for 80kg of rice: 72,000 Korean won (1995)  $\rightarrow$  93,000 Korean won (2005)  $\rightarrow$  111,000 Korean won (2013)
- Despite the efforts for economies of scale, cultivation area per farm household is yet minute.
  - \* Cultivation area per farm household: 0.88 ha (1995)  $\rightarrow$  1.05 ha (2005)  $\rightarrow$  1.19 ha (2013)
- 3. The New Direction for Rice Industry Development after the Rice Import Tariffication

- ♦ Direct Payment (Stabilization of farm household income), Public stock holding Program (Food security and stabilization of distribution)
- **♦** Professional Farmers and Economies of Scale (Subject of Production)
- **♦ Land Consolidation• Irrigation Facilities, Improvement of Infrastructure through Mechanization (Increase of Production)**
- **♦ Simplification of Distribution and Decrease in Distribution Cost Based on RPC** (Effective Distribution)
- \* Currently, farmers are asking for: (i) reinforcement of income stabilization; (ii) minimization of import and maintenance of infrastructure; (iii) measures for illegal imports of foreign rice; (iv) promise on excluding rice tariff concession on FTA and TPP negotiations.
- Facing the situation of continuous decrease in rice cultivation area and consumption of rice, maintenance of stable foundation of production is needed to prevent rice industry from shrinking.
- Maintenance and reinforcement of foundation of production by preserving prime agricultural land preservation(優良農地保全) and investment in production infrastructure.
- Maintaining the foundation of rice demand by promotion of consumption and export and raising the processing industry
- Reinforcing income stabilization mechanism in order to prepare for decrease in rice price and farm household income
- Expansion of two-crop farming(二毛作) in order to increase farm household income and grain and food self-sufficiency ratio simultaneously
  - \* Expansion of 10 ha of two-crop farming leads to 2.5% increase in grain self-support
- Continuous reinforcement in the competitiveness in order to prepare for the competition against imported rice on the long run
- Economies of scale and collection by raising professional farmers and 50ha or more of field management system
- Developing and distributing the technologies for lowering rice production cost and ameliorating the competitiveness by improving the quality of the domestic rice
- Strengthening the RPC and preventing the illegal distribution of rice
- Integration and coalition of RPC in order to reinforce bargaining power and management efficiency
- Prohibition of selling mixture of domestic and foreign rice, heavier restrictions upon illegal distribution in order to gain consumer trust

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