

How to Encourage Young Generation to Engage in Farming: Korea's Case

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ABSTRACT

As the share of agriculture in Korean economy has been decreasing since the 1970s, the Korean agricultural workforce has also declined and agricultural workers in their twenties and thirties have become scarce, which led to a lower rate of agricultural labor productivity. Since the 1980s, Korea has been trying to secure young generation in the agriculture sector and rural areas by launching new programs such as Farm Successor Fostering Program(1981), Korea National Agricultural College(1997), and Special Agricultural Program in Agricultural Schools(2006). While each program has its own outcomes, the greying of Korean farmers is likely to continue because of less favorable public perceptions of agriculture, farm youth decrease, old farm retirement and entry, and agricultural school graduates' scarce entry into farming. In order to solve these problems, this study suggested the following measures: activating education about agriculture; fostering selected agricultural high schools; strengthening agricultural colleges' role in fostering agricultural workforce; linking retiring farmers and new farmers through farm corporations; launching intermediate organizations in charge of regional agricultural workforce; and supporting capital formation of young farmers.

Keywords: Agricultural Workforce, Ageing, Fostering Young Farmer

KOREAN AGRICULTURAL WORKFORCE

Korea has the traditional golden phrase "Agriculture is the fundamental foundation of the country". Korea was the traditional agriculture-oriented country until the 1960s. In 1970, 48.2% of total economically active population in Korea worked in agriculture and agricultural value added accounted for 26.6% of gross national income. However, the national economic development strategy had put emphasis on commerce and industry(shipbuilding, construction, electronics, and the automotive industry have been the primary engines of growth), and the agricultural workforce began to move into other industries. Since 1970, the share of agriculture in Korean economy has been declining and the Korean agricultural workforce has also shrunk. In 2010, 6.3% of total economically active population worked in agriculture while agricultural value added as a percentage of gross national income was only 2.4%.

Table 1. Change in Agricultural Workforce and Agricultural Value Added in Korea

unit: billion won, thousand persons

Year	Gross National Income(A)	Agricultural Value Added (B)	B/A Ratio	Economically Active Population(C)	Agricultural Workforce (D)	D/C Ratio
1970	2,763	736	26.6%	10,062	4,846	48.2%
1975	10,386	2,559	24.6%	12,193	5,339	43.8%
1980	38,774	5,576	14.4%	14,431	4,654	32.3%
1985	84,061	10,173	12.1%	15,592	3,733	23.9%
1990	186,690	14,998	8.0%	18,539	3,237	17.5%
1995	398,837	22,828	5.7%	20,845	2,403	11.5%
2000	578,664	24,939	4.3%	22,134	2,243	10.1%
2005	864,427	25,853	3.0%	23,743	1,815	7.6%
2010	1,174,753	27,832	2.4%	24,784	1,566	6.3%

Source: Statistic Korea. (1970-2010). Economically Active Population Survey

In most developed countries, national economic growth was accompanied by the decrease in the share of agricultural sector. The problem lies not in the decline, but in the ageing of agricultural workforce. The share of agricultural workforce aged 60 and over was 6.4% in the 1970s, 11.2% in the 1980s, and 23.7% in the 1990s. In 2000, it was over 40% and finally in 2010, it was 55.9%. A bigger problem is that the share of agricultural workers who are in their twenties and thirties, the future generation in agriculture, is declining fast. In the 1970s, 57.6% of total agricultural workforce was under the age of 40, but the percentage dropped to 22.1% in 1990 and 6.4% in 2010.

Table 2. Change in Age Structure of Korean Agricultural Workforce

unit: thousand persons(%)

Year	Age										Total	
	~29		30~39		40~49		50~59		60~			
1970	1,533	(31.6)	1,260	(26.0)	1,058	(21.8)	686	(14.2)	309	(6.4)	4,846	(100.0)
1975	1,559	(29.2)	1,177	(22.0)	1,180	(22.1)	962	(18.0)	461	(8.6)	5,339	(100.0)
1980	949	(20.4)	898	(19.3)	1,309	(28.1)	979	(21.0)	520	(11.2)	4,654	(100.0)
1985	568	(15.2)	681	(18.2)	997	(26.7)	924	(24.8)	564	(15.1)	3,733	(100.0)
1990	221	(6.8)	494	(15.3)	700	(21.6)	1,056	(32.6)	766	(23.7)	3,237	(100.0)
1995	103	(4.3)	338	(14.1)	466	(19.4)	672	(28.0)	823	(34.2)	2,403	(100.0)
2000	79	(3.5)	218	(9.7)	404	(18.0)	553	(24.7)	989	(44.1)	2,243	(100.0)
2005	29	(1.6)	83	(4.6)	286	(15.8)	420	(23.1)	994	(54.8)	1,815	(100.0)
2010	31	(2.0)	70	(4.5)	200	(12.8)	390	(24.9)	875	(55.9)	1,566	(100.0)

Source: Statistic Korea. (1970-2010). Economically Active Population Survey

Korea has one of the oldest populations of farm holders among developed nations in agriculture. In Korea, the ageing of farm holders is more serious than the ageing of agricultural workforce. In 2013, the average age of farm holders was 65.4. The share of farm holders aged 60 and over was 67.3% and that of farm holders aged 70 and over was 37.7%. For the international comparison of farm holders' ageing, the age group ratio of the less than 35 years to 55 years and over is shown in table 3. The EU-27 average in 2007 for farm holders (A) who were younger than 35 years was 6.1% and for farm holders (B) who were older than 55 years, it was 56.8%. The ratio of A to B (the ratio of young to elderly farmers) was 0.107. As of 2011, the ratio in the United

States was 0.121. The United Kingdom, Italy, and etc. had the oldest farming populations with the ratio of 0.04. Whereas, the ratio in Korea was even worse: in 1990, the ratio was already 0.186 passing that of 2007 France; in 2000, the ratio was 0.045 similar to that of 2007 UK; In 2013, the ratio dropped to 0.004.

Table3. Ageing of farming population in selected countries

Country(Year)	Less than 35 years %(A)	55 years and over %(B)	A/B
Denmark(2007)	6.0	44.6	0.135
Germany(2007)	7.7	30.0	0.257
France(2007)	7.9	40.9	0.193
Italy(2007)	2.9	68.0	0.043
Netherlands(2007)	3.9	44.5	0.088
UK(2007)	2.6	61.7	0.042
EU-27(2007)	6.1	56.8	0.107
US(2011)	3.9	32.1	0.121
Korea(1990)	7.3	39.3	0.186
Korea(2000)	2.2	48.5	0.045
Korea(2007)	0.6	73.9	0.008
Korea(2013)	0.3	80.8	0.004

Source: Statistic Korea. (1990-2013). Agricultural Survey; EU. (2007). Farm Structure Survey; USDA. (2011). Agricultural Resource Management Survey(2011).

Korea's agricultural labor productivity is at a standstill recently. The real agricultural labor productivity growth trend from 1970 to 2012 is shown in Figure 1. Agricultural labor productivity had grown rapidly until the 1990s, showing over 6 % growth per year. Since the early 1990s, the annual agricultural labor productivity growth rate began to fall. It dropped to 3.5% in 1991-2000. Over the last decade, agricultural labor productivity almost stopped growing.

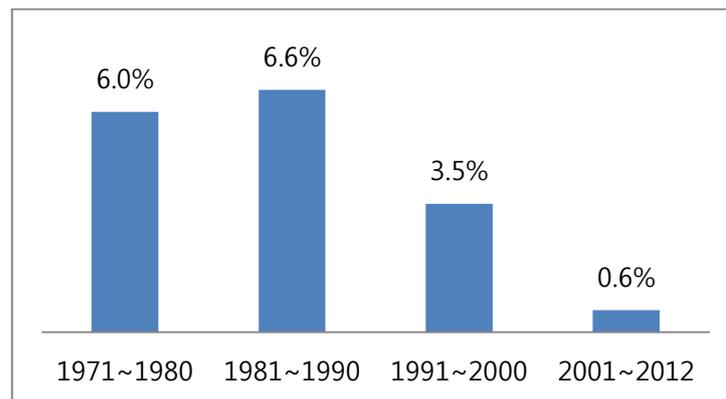


Fig. 1. Annual Average Growth Rate of Korean Agricultural Labor Productivity

Source: Statistic Korea. 1970-2012. Farm Economic Survey.

Compared to Korea's total labor productivity in all sectors, agricultural labor productivity shows a consistent decline. Agricultural labor productivity and total labor productivity (in all sectors) levels were similar in the 1970s, but the difference between the two widened since the 1980s. In the 1990s, the agricultural labor productivity level

was a half of the total labor productivity level and now it is almost 1/3 of the total labor productivity level. In 2010, value added per economically active person in all industries was 47.4 million won while the agricultural workforce generated value added equivalent to 17.8 million won.

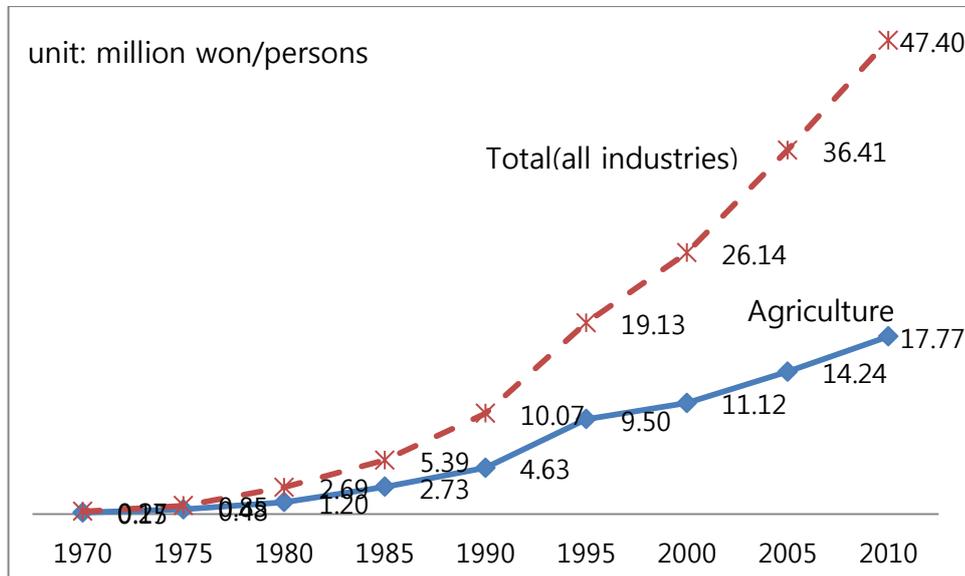


Fig. 1. Change in Korean Labor Productivity in All Industries and Agriculture

Korea's agricultural labor productivity is much lower than that of other advanced countries in agriculture. The advanced countries in agriculture such as France and the Netherlands have output per farmer that is over 60,000 dollars in 2010 (standard price of 2004-2006). The output value in Korea is only 1/9~1/10 of this level.

POLICIES FOR YOUTH ENTRY INTO AGRICULTURAL WORKFORCE

Farm Successor Fostering Program

Farm Successor Fostering Program was the first government program to secure young generation in the agriculture sector and rural areas and is one of the long-lasting programs in MAF(Ministry of Agriculture)'s policy history, which started in 1981. As you see, many young people had left rural areas for their new jobs in cities since the 1970s. The program's basic idea is as follows: once you are selected as a farm successor and can get monetary support from the government, you are not supposed to leave for a certain period of time. If you leave after receiving support, you should give the money back.

The program's target group is young generation. When the program started, the age limit was 30 years old. It was assumed that it would bring the amount of one's agricultural income close to that of urban workers' income given that one worked in farm for at least ten years and reached age 40. However, as time went by, young people in rural areas became scarce and the age limit had risen up to 40 years old in 1992, and again to 45 years old in 2004. Recently, many citizens tend to migrate to rural areas after the 2008 economic crisis. Many of urban to rural migrants wanted to engage in farming. The ministry was trying to include them into agricultural policy. As a part of these recent political efforts, Farm Successor Fostering Program's age limit was

extended to 50 years old in 2013.

If you are selected as a farm successor, you could get supports for the new farm installation up to 300 million won (about 300 thousand US Dollars), which is not free but loan with low bank interest. You should pay back in 10 years. Almost half of the program quota is assigned to agricultural school graduates and the rest to farmers under 10 years of farming experience. In addition to monetary support, the recipients could get professional education and training lasting 6 months, which was started just two years ago.

For about the last 40 years, over 130 thousand young farmers have been supported. Almost 90% of them are still engaging in agriculture. The recipient farmers account for about 10% of total farm holders, and literally they are distributed nationwide at the rate of almost 3 persons per rural village (Korea has 36,000 rural villages). The original purpose of the program was to foster one leading young farm successor per rural village. You could say the goal was already achieved, but the political and social needs for the program are not yet met.

Korea National Agricultural College

Due to the agreement of UR negotiation and embarkment of World Trade Organization (WTO) in the 1980s, the era of infinite competition throughout the world also comes across in the field of agriculture. Agricultural market opening to the world signaled to agricultural schools that the government was going to give up agriculture. Since 1990s, many of agricultural schools started changing school name and department name as well as educational contents. In order to cope with the difficult situation in the agricultural sector and to enhance the competitiveness in the fields of agriculture, the need for fostering elite members leading the development of agriculture becomes urgent. Therefore, Korea National Agricultural College rearing professional farm managers was established in 1994 according to the proposal of Agriculture and Fishery Development Committee, the presidential advisory organization.

The purpose of KNAC (The college name was changed to KNCAF: Korea National College of Agriculture & Fishery, newly opening Aquiculture course in 2010) is to foster elite members leading the development of agriculture and rural communities with international views. There is a priority admission for people with farming background and agricultural high school graduates. Students get special grants like free dormitory and tuition, special exemption from military service and priority for Farm Successor Fostering Program. After graduation, they are supposed to farm for 6 years, which is twice the schooling period.

The college has a particular education system-sandwich training system: first year in school, second year in agricultural field, and third year again in school. In their first year, the students get basic education in agricultural philosophy and basic agricultural skills. During the second year, the students go out of school and experience agricultural skills and management knowledge in the farm. Some of them go abroad. At foreign farms, they spend almost 10 months. In the final year, they get problem-solving education and are guided to design their own farm management plan.

The annual entrance quota is about 300 students and 10 agricultural departments are currently available; food crops, industrial crops, vegetable crops, fruit tree, floriculture, beef & dairy science, and swine & poultry science, Forestry & Landscape Architecture, and Horse Industry (the last two departments were newly setup 2 years ago). KNAC has produced over 3 thousand graduates since 2000. The opening was in 1997. After 3-

year-education, the first graduates came out in 2000. Out of all graduates, about 90% are working at farms and 10% are out of farms. Farm income of the graduates is double or more of the average farm income.

Special Program in Agricultural Schools

Other than KNAC, to revitalize existing agricultural schools' role in producing young farmers, two special programs were launched in 2006. One is for agricultural high schools and the other is for agricultural colleges. Those programs encourage agricultural students to undertake agricultural business through on-the-job training and learning so that more students get involved in the business. The specific contents of the program vary every year. The program is generally divided into two areas including specialized education focused on the field experience and revitalization of agricultural high schools.

As of 2011, the special programs for agricultural high schools were provided by 10 high schools for 5,184 students: *Gyeongnam Jayoung High School, Gongju High School of Life Science, Gimje Jayoung High School, Boeun Jayoung High School, Suwon High School of Agro Life, Yeosu Jayoung High School of Agriculture, Jeonnam Life Science High School, Cheongju High School of Agriculture, Hongcheon High School of Agriculture and Korea High School of Life Science*. The education program is set by grade and stage. The first grade is a stage of exploration, the second grade is a stage of basic practice, and the third grade is an advanced practice stage.

In the year of 2011, the special program for agricultural colleges were supplied by 11 universities or colleges for 1,645 students: *Kangwon National University, Kongju National University, Jeju National University, Gyeongnam National University of Science and Technology, Gyeongsang National University, Chonnam National University, Chonbuk National University, Sunchon National University, Chungbuk University, Kyungpook National University, and Cheonan Yonam College*. Such program included farm visit, farm internship, lectures on successful farmer stories, collaboration with agricultural high schools, and overseas agricultural experience. Along with such programs, job search program for agricultural college students called Job Map Project was provided to make right decision on being involved in agro business.

Still, the tangible outcome is not clear, but EPIS(Korea Agency of Education, Promotion, & Information Service in Food, Agriculture, and Fisheries)(2012) reported that many students who passed the program improved their farming knowledge and skills and Ma(2008) showed that not a small number of students had changed their future career plan into the field of agriculture.

PROBLEMS AND ALTERNATIVE MEASURES

Problems

While the above programs to secure young generation in farming have their own outcomes, the greying of Korean farmers is likely to continue due to less favorable public perceptions of agriculture, farm youth decrease, old farm retirement and entry, and agricultural school graduates' scarce entry into farming.

The public kept high-level awareness of the importance of agriculture. In 1999,

77.5% of the population viewed agriculture as a basic industry that is vital to the state economy. The number was 88.4% in 2006 and 89.6% in 2012. The attractiveness of agriculture as a career gradually decreased, however. According to KREI (Korea Rural Economic Institute)'s annual survey on public perception of agriculture(1999-2012), 63.1% of the public agreed to have their children engaged in farming in 1999. The number rapidly decreased afterwards to 45.7% in 2007 and 28.9% in 2012. The number of the youth and young adults in farms who are potential agricultural workforce has also decreased. Those under age 30 was 63.6% in the 1970s, 43.7% in the 1990s, and 20.1% in 2010.

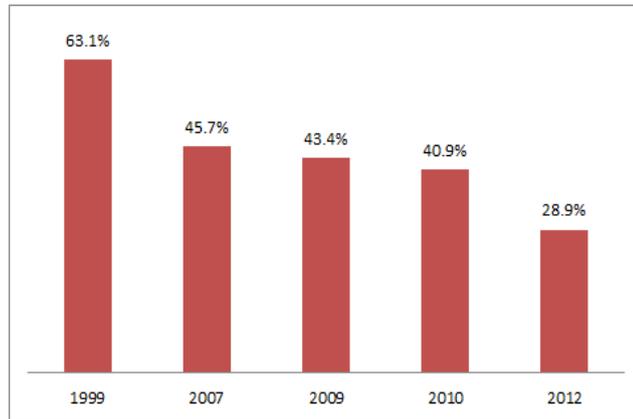


Fig. 2. Public Who Agree to Have Their Children Engaged in Farming
Source: KREI(1999-2012)

As the expected retirement age of farmers rises, age of entry for new farmers is also rising. According to research conducted by Chae & Park (2012), farmers' expected age of retirement is 74.4 which is 12 years longer than the average age of retirement of farm holders (62.3). It is not so different from the average of life expectancy of Korean adults which is 77 years old.

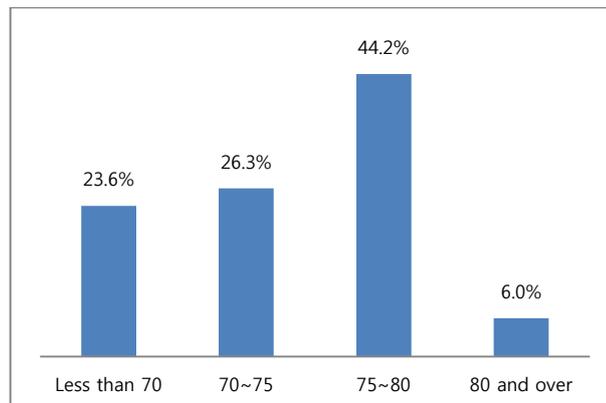


Fig. 3. Expected Retirement Age of Korean Farm

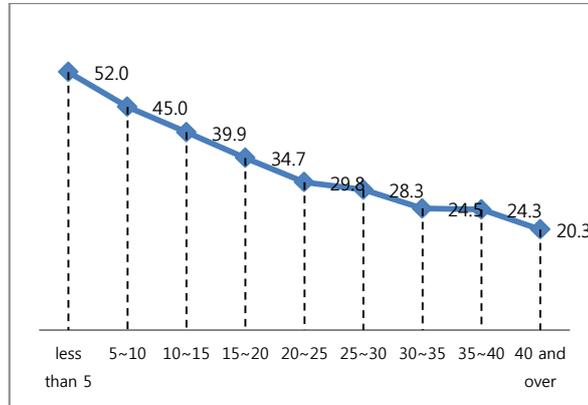


Fig 4. Farming Entry Age by Farming Experience Period
Source: Chae & Park(2012)

As more and more older farmers retire later, the average age of new entrants to farming is rising. The average age at entry to agriculture is 52 years old for new farmers whose experience in farming is less than five years. On the other hand, it is 29.8 years old for farmers with 20-25 years of farming experience and 20.3 years old for those with more than forty-years of farming experience.

In terms of quantity, the number of agricultural schools, an important route to foster agricultural workforce, has been declined. In terms of quality, the trend of rural-urban migration is shown by changes in the name of schools, departments as well as changes in curriculum.

All agricultural high schools in 1960 were original agricultural high schools and the number reached 133 in 1969. In 1972, the number of agricultural high schools started to decrease as 43 agricultural high schools were turned into academic, technical, and vocational high schools in the name of reorganizing inadequate agricultural high schools. The number of schools went up briefly to reach 75 in 1980, but it continued to decrease since. In 2010, there are only 23 original agricultural high schools in the country.

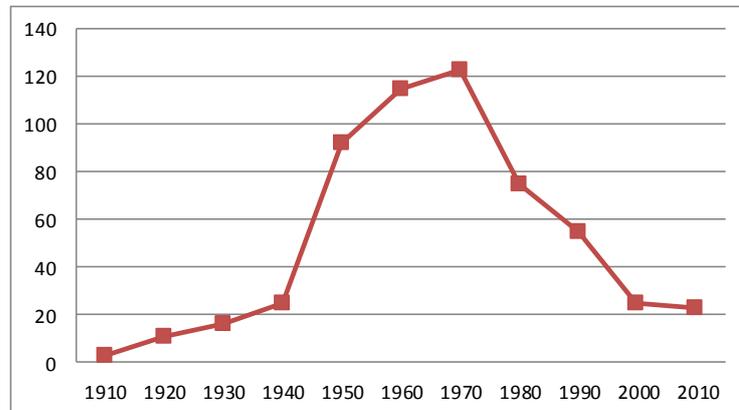


Fig. 5. Number of Agricultural High Schools in Korea

Along with the decline in quantity, agricultural school is becoming more and more distant from agriculture as a primary industry in its contents of education since the 1990s. First of all, in the past ten years, most agricultural schools have thrown away the traditional name of agricultural school and have chosen ambiguous names that evade clear industrial distinction. As a result, now it is difficult to tell if the school or department is agricultural or not. When it comes to four-year colleges, starting with Seoul National University in 1992, for the name of college of agriculture, most changed to College of Agriculture and Life Sciences and others changed to College of Agriculture and Life Environment, College of Life Sciences, College of Life Science and Natural resources, and etc. The name of college of forestry was changed to College of Forest Science or College of Forest and Environmental Sciences. The name of college of animal husbandry was changed to College of Animal Resources Science and then changed to College of Animal Bioscience and Technology. There were many changes in the name of department (major) as well. Department of food sciences was one of the few departments that kept the traditional name of the department. For example, department of agriculture changed its name to following department: plant resource, crop producing engineering, plant applied science, plant resource applied engineering.

With these agricultural schools going out of agriculture trends, the graduates' entry into farming has become scarce. Recently, 1% of agricultural high school graduates, less than 100 students, entered farming. The number of graduates from the four-year agricultural colleges in the past three years is around 100 annually which is less than the number of graduates from Korea National College of Agriculture and Fisheries.

Table 4. Career After Graduating Agricultural High School: 2008~2014

Year	Graduate		Higher Education		Employment		Farming	
2008	6,714	(100.0)	4,798	(71.5)	1,005	(15.0)	126	(1.9)
2010	7,305	(100.0)	5,447	(74.6)	1,305	(17.9)	63	(0.9)
2012	6,977	(100.0)	3,922	(56.2)	2,134	(30.6)	17	(0.2)
2014	7,123	(100.0)	2,739	(38.5)	2,615	(36.7)	44	(0.6)
Average	7,037	(100.0)	5,184	(73.7)	1,089	(15.5)	85	(1.2)

Source: National Association of Agricultural Teachers. (2008-2012)

Alternative Measures

Activating Education in Agriculture

Agricultural education should be strengthened. Securing agricultural workforce needs to be approached in an aspect of life-long learning in a broad, long-term perspective. Investment in fostering potential agricultural workforce should be expanded targeting preschoolers, elementary and middle school students, and the public, beyond the farmer-centered approach.

Fostering potential agricultural workforce needs to be approached at the level of improving the public' s agricultural knowledge, thereby securing potential agricultural human resources and cultivating agricultural policy supporters although they are not engaged in farming. The younger the target age is, the bigger the effect of investment in nurturing workforce is (Heckman 2008). The target should be expanded from those who are engaged in or are preparing to engage in farming to younger students. Beyond

the existing passive image of agriculture and rural areas, it is needed to present an active image that agriculture is an important industry in charge of our dietary lives and quality of life, a promising industry using IT, BT, etc. and that rural areas are the foundation of our lives.

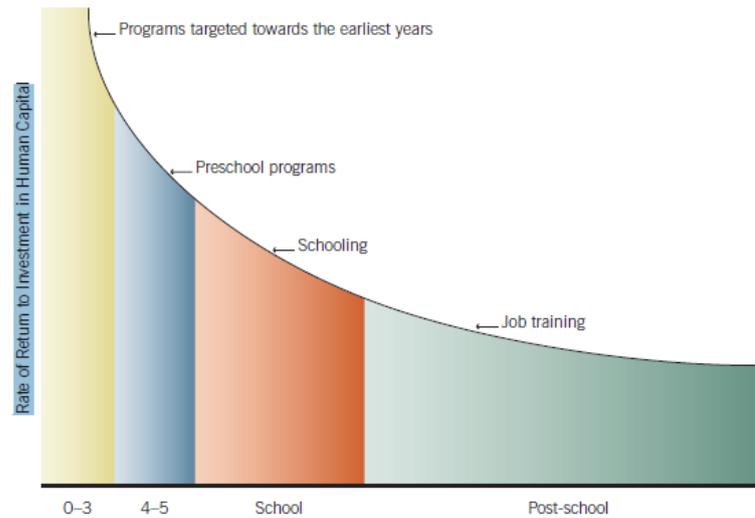


Fig. 6. Returns to Investment in Human Capital Over the Life Cycle
Source: Heckman(2008).

Fostering Selective Agricultural Schools

With efforts for potential agricultural workforce’s inflow, it is needed to secure stable new agricultural workforce by strengthening investment in agricultural schools. Fostering agricultural workforce starts from stably securing new agricultural workforce’s inflow. Agricultural schools are vocational schools for professional education that were established for this purpose. Recently, many agricultural educational institutions are changing into non-agricultural ones. However, there are still many schools for fostering agricultural workforce. Each agricultural school has teachers or professors in charge of education by agricultural field and educational facilities. Before the condition gets worse, it is needed to help the schools play their roles by increasing investment in them.

It is necessary to foster about 10 bases of agricultural high schools by province centered on specialized high schools including self-management agricultural schools and schools only for agriculture. Integrated management of existing agricultural schools’ material and human resources, establishing a plan to foster agricultural high schools linked to local demand for agricultural workforce and promoting investment and cooperation of local governments’ agriculture-related agencies are needed. Also, Contests for agricultural majors and principal and teacher invitation systems are required, and the autonomous operation of the curriculum should be strengthened for education centered on capacity needed in the field, beyond the existing subject-centered curriculum.

Agricultural colleges should be reformed to foster workforce related with farming and be linked with key local agricultural high schools. To strengthen agricultural colleges’ link with the agricultural scene, the farming-centered education system is needed in order to cultivate each region’s agricultural successors through special admission for jobholders and so on, in addition to the existing subject- and discipline-centered curriculum for those who want to be employed in industries or disciplines

including life science. The actual farming- or work-centered education system should be operated from selecting students to running programs. Graduates from the farming-centered education system will be able to be professional farmers engaged in agricultural production in rural areas, or agricultural education instructors or farming consultants as agricultural experts with business skills.

Links between retiring farmers and new farmers through farm corporations

Agricultural corporations are contributing to revitalizing local agriculture in many aspects as a means of effectively using local agricultural resources of key farms and small and medium farms, and as actual agents of organizing local agriculture. Nevertheless, they have not developed into sustainable agricultural enterprises by securing agricultural workforce.

New farmers including those returning to farming are facing many difficulties such as securing farmland, learning production technology, and assimilating into rural communities for stable and successful settlement. Settlement incubating for new farmers, based on individual farm, has many limits realistically. However, agricultural corporations have a lot of areas to use various experiences of those who returned to farming including farm accounting, sales and marketing, and the establishment of farming plans, and have less possibility of individual interests entangled.

The agricultural workforce development policy or program for elite farming unit should be changed from existing support policies centered on individual farms to the cultivation of agricultural corporations. At the same time, employing those returning to farming (external workforce) needs to be promoted to strengthen the function of agricultural producers' organizations as incubating organizations for new farmers' settlement. Specifically, it is necessary to expand policy support to the organizations including support for labor costs, management consulting, and securing joint farmland. If corporations with transparent accounting and labor management ability employ and train new farmers, the corporations should be paid for some part of education and training costs and the farmers' pay for a certain period. In addition, improving those corporations' employment conditions with a hopeful vision and stable job is required to establish the standard employment regulations including working hours, days off, and holidays in consideration of the nature of agriculture.

A program is needed to help retired farmers without their successors to transfer their farms to new farm households effectively. Farmers who plan to retire have a strong desire to return the capital they invested in agriculture, so they do not transfer their farms to others easily. New farmers have many difficulties in securing quality farmland and scaling up farms. In farm transfer, various interpersonal and financial problems can occur, and it is important to understand the system of taxes and farmland transfer. Major advanced countries including EU, Japan and US, have already carried out projects for supporting farm transfer to solve problems that can occur in the process of farm transfer and to enable retired farmers and new farmers to devise and implement proper farm transfer plans (Ma, 2011). To prevent retired farmers' farmland from being sold to non-farmers or being fallow land, and to continuously use it for agricultural production by farm transfer, consulting through farm visits and education for farm transfer are needed.

Setting up intermediate support organizations in charge of regional agricultural workforce

The current system of Farm Successor Fostering Program has improved through trial and error, but it has not worked well in many regions. As for Farm Successor Fostering Program, a majority of local governments have operated organizations for the selection of agricultural successors and follow-up support separately. Also, in case of many local governments, people in charge at agricultural technology centers, the National Agricultural Cooperative Federation (NACF), and organizations related to support to farming successors do not know about many recent changes in guidelines for the project, and evaluation and application standards. Accordingly, those who apply for agricultural successors have difficulties in getting correct information.

Some local governments did not update data on whether successors engaged in farming after selecting them. The root reason of this problem is that related agencies' persons in charge are changed often, and that Farm Successor Fostering Program is considered one of many works. (Many local governments do not place more weight on this project than other works.) That is, most on-site problems related with the project result from lack of interest at the local government level and personal capacity of people in charge with the field.

To foster agricultural successors and help their successful settlement, it is needed to establish intermediate support organizations (local agricultural workforce support centers) that will continuously provide professional services despite changes in related administrative workforce and will be in charge of support to fostering agricultural successors. Through the organizations, those who apply for Farm Successor Fostering Program will be able to receive related consulting anytime, prepare evaluation materials related with selection, and get systematic information on loans linked with financial institutions. Applicants will also be able to receive support related to the systematic development of professionalism more suitable for each region including education, consulting, learning groups, and personal learning information.

The organizations can also support settlement of those who return to farming and rural villages; seasonal agricultural workforce including foreign workers; mentoring by linking leading farmers with new farmers; farm connection by linking retired farmers with new farmers; and agricultural high school and college students' employment in agricultural corporations. The organizations can also conduct activities so that various projects for fostering agricultural workforce are delivered to demanders in a package through links among major agricultural agents and resources in regions (agricultural schools and corporations, farmers' groups, the NACF, agricultural technology centers, etc.)

Due to the nature of these works, the form of social enterprises will be suitable to organizations supporting the Farm Successor Fostering Program. If the organizations as social enterprises are vitalized in regions, they will facilitate participation of non-agricultural experts or agricultural college students (as the organizations' agents or clients), thus linking existing private and public resources in agriculture in the project more systematically (social economy centered on agricultural successors).

Supporting capital formation of young farmers

To enable Farm Successor Fostering Program to bring external workforce to rural areas, and make them settle down there engaging in farming, strategies are needed for an inflow of people who are not from a farming family, who are not on a sound farming footing but have capacity and will. It is most important to induce these people to form

assets for farming by stages. In this context, this study suggests introducing an Individual Development Accounts System.

The Individual Development Accounts System for new farmers helps them prepare funds related to farmland, facilities, and operating funds in phases voluntarily. According to a recent survey, new farmers point to economic capital including farmland, facilities, and operating funds as the biggest obstacles to entry (Ma, 2008a). The central and local governments support policy funds, a lease on agricultural machinery, and the farmland bank, but related problems have not been solved fundamentally due to most new farmers' lack of basic economic assets. As for this, many implications can be drawn from the case of the US that introduced the Beginning Farmer and Rancher Individual Development Accounts program recently.

Individual Development Accounts are individuals' financial accounts to which private donations and government subsidies at a certain rate are added, if beginning farmers save a small sum of money to form capital for farm management. In the US, 15 states are conducting the demonstration projects. This project enables capital formation in the long term, different from short-term subsidy-centered policies. It also helps beneficiaries to set a goal of capital formation and to achieve it actively. Through this, beneficiaries can make their future more positive by thinking that they can coordinate their lives independently.

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