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10 Agricultural Policy Issues of Korea in 2018

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Summary

- The Korea Rural Economic Institute selected 10 agricultural policy issues of Korea in 2018 as follows, considering the basic frame that agricultural policy should pursue and issues that need to be solved urgently.
 - 1) Stipulate agricultural multifunctionality in the constitution and expand direct payment programs for public purposes for sustainable development of agriculture and rural communities and for multifunctional agriculture
 - 2) Systematically set up national and regional food plans to secure basic rights to food and to build a safe food system
 - 3) Pursue decentralization, one of the government's major national policy directions, and reform agricultural policy governance for this
 - 4) Regenerate rural areas into beautiful, livable ones to maintain rurality and increase the sustainability of rural communities
 - 5) Revitalize rural areas and restore rural communities by expanding the rural social economy, the major policy among people-centered agricultural policies
 - 6) Lead agricultural innovative growth through young people's farm start-up to overcome the aging of farmers and stagnant innovation capacities
 - 7) Make agriculture a future growth industry by expanding the application of fourth industrial revolution technologies to the agricultural sector
 - 8) Implement a rice production control program and reset target price to stabilize rice supply and demand
 - 9) Innovate the livestock rearing environment and the disease prevention system to improve agricultural production conditions and secure food safety
 - 10) Strengthen responses to the expansion of protectionism centered on the US and the UK and to agricultural trade issues

1 Agricultural Policy Conditions in 2018¹⁾

- ☐ The domestic and international economies are forecasted to be stabilized at the similar level to last year's.
 - In 2018, the world economy is expected to grow at the level similar to last year's.
 - In 2017, the global economy showed recovery due to the balanced growth of developed countries and emerging economies. According to the IMF, the economic growth rate of 2018 is forecasted at 3.7%, similar to the previous year's level (3.6%).
 - Due to emerging economies' increase in demand for imports, the global trade volume will recover. However, there are constraints such as the expansion of protectionism.
 - Also, there are risk factors as follows: international oil prices will increase from the previous year; and future prices of world grains, stabilized downward in the first half of the year, are expected to rise in the second half of the year.
 - With the continued increase in exports and a recovery in private consumption, the growth rate
 of the Korean economy is forecasted to be approximately 2.9% in 2018, according to KDI (the
 growth rate of the Korean economy in 2017: 3.0%).
 - Private consumption will increase from 2017 due to the effect of policies related to jobs and income-led growth.
 - Nevertheless, despite the rise in private consumption, domestic demand will slow down somewhat due to a decrease in an increasing trend in investment.
- ☐ The people pursue various values with income.
 - More people have tended to pursue the quality of life and happiness in addition to income, and pursue diverse values including justice, equity, and participation as well as economic growth.
 - More people, including farmers and consumers, will want to participate in policymaking as agents, not staying as policy targets, and demand decentralization that reflects regional characteristics.
 - The agricultural policy governance system will be reformed continuously so that farmers' and consumers' participation in agricultural policy expands and the central and local governments cooperate by setting up the Presidential Special Agency on Agriculture and Fisheries and Chambers of Agriculture and Fisheries.

¹⁾ Lee Myoungki (senior research fellow) and Heo Jeonghoi (research fellow)

- To increase the people's happiness, the function of agriculture and rural communities is emphasized as an industry and space that can embrace various values such as healing, culture/leisure, recreation, and community activities.
 - Rural regeneration that restores rurality and revitalizes rural communities by utilizing tangible and intangible assets in rural areas has become important.
- ☐ The basis of national policy, including job creation and innovative growth, and the progress of a constitutional amendment
 - With the government's basis of national policy, the agenda such as job creation, innovative growth, the fourth industrial revolution, and the social economy is also expected to greatly affect the agricultural and rural sector.
 - The agriculture sector should contribute to job creation by leading responses to the fourth industrial revolution including the intelligent infrastructure and convergence services, making this an engine of innovative growth, and promoting young people's farm start-up.
 - There has been a growing policy interest in creating jobs and solving social problems by boosting the social economy, a model of cooperative growth and inclusive growth.
 - It is necessary to seek ways to create rural jobs and revitalize communities by expanding the rural social economy and social farming.
 - Concerning the constitutional amendment, there will be continuous discussions on reflecting
 the multifunctionality and public value of agriculture and maintaining the land-to-the-tiller
 principle in the agriculture sector.
 - It is needed to form a social consensus on increasing farmers' income by compensating the agricultural sector for the provision of multifunctionality.
- ☐ The people have taken a growing interest in agricultural production processes and agri-food safety, and it has become necessary to implement a pan-government comprehensive food plan.
 - The frequent outbreaks of accidents related to food safety, including the large-scale outbreaks of AI and the egg contamination scandal, raised the people's interest in safe food.
 - There has been a growing social demand for sustainable agriculture through the creation of environment-friendly production conditions.

- Particularly, in the livestock industry, livestock diseases have broken out continuously with the growth of breeding scale. Therefore, environment-friendly animal welfare feeding facilities have become necessary.
- In terms of seeking an integrated approach to safe and healthy food, the need to establish a national food plan has been stressed.
 - It has become urgent to nationally respond to threats such as unstable food supply, outbreaks
 of food safety accidents, the growing imbalance in diet and nutrition supply, and an increase
 in disease due to unhealthy diet.
 - Important considerations include the establishment of a pan-government comprehensive plan, private-public participation, and central-local linkage.

10 Agricultural Policy Issues in 2018

2.1. Stipulate agricultural multifunctionality in the constitution and expand direct payment programs for public purposes²⁾

- ☐ Efforts to state agricultural multifunctionality in the constitution have expanded, and it has become necessary to make agricultural policy centered on direct payment programs for public purposes.
 - The agricultural sector is making various efforts to reflect the multifunctionality and public value of agriculture in related provisions in case of the constitutional amendment.
 - Switzerland stipulated the concept of multifunctional agriculture in the federal constitution for the first time in the world by holding a referendum in 1996 and receiving support from 76%.
 - In Korea, 10 million people's signatures were gathered in 2017 to form public opinion in order to reflect the public value of agriculture in the constitution.
 - It is required to concretely identify the multifunctionality and public value of agriculture, establish the logic that supports this, and form social consensus.
 - In Korea too, it is needed to make the people aware of the importance of agricultural multifunctionality and to form social consensus. Nevertheless, efforts to reflect the multifunctionality in policies and the legal and institutional basis are relatively insufficient.
 - ** According to Section 1 of Article 6 of the Framework Act on Agriculture and Fisheries, Rural Community and Food Industry, "When the State and local governments formulate and implement policies for agriculture, rural communities, and the food industry, they shall seek efficiency based on the principle of the market economy, taking into account the public functions of agriculture and rural communities to the utmost extent." However, this has remained at the declaration level.
 - Accordingly, there has been an argument that it is required to clearly state the multifunctionality
 of agriculture in the constitution and to improve relevant laws and systems in order to lay the
 foundation for putting them into practice.

²⁾ Kim Taehun (senior research fellow) and Rhew Chanhee (research fellow)

- Direct payment programs contributed to income increase and management stabilization to some extent. Nonetheless, it is necessary to improve problems so far and to reform the programs in the direction of a desirable agricultural policy.
 - It is needed to satisfy social demand for the function of environmental and ecological conservation, and to enhance the sustainability of agriculture by reforming the overall system of direct payment programs.
 - The current direct payment programs for management stabilization (direct payment programs for rice income preservation, for dry-field farming, for compensating for FTA damage) have the following tasks for improvement: coupling, budget concentration on particular products (80.8% of the total budget in 2017 was allocated to rice), and the effectiveness of cross-compliance.
 - The direct payment programs for public purposes (direct payment programs for environment-friendly agriculture, for less-favored areas, for landscape conservation) have received criticism regarding a low proportion of the budget (3.5% of the total budget in 2017) and insufficient policy effects.
 - The direct payment programs for structural improvement (the direct payment program for farm transfer and the support program for business closure) conflict with the purposes and expected effects of other direct payment programs. And the effect of the former programs should be reviewed.
- □ It is required to strengthen the sustainability and social contribution of agriculture by reforming and expanding direct payment programs with a focus on multifunctionality.
 - o It is needed to present the grounds for the need to stipulate multifunctionality in the constitution.
 - It is necessary to review why reflecting multifunctionality in the law is needed and whether this accords with constitutional value.
 - To realize multifunctionality, it is required to reflect the State's duties in the constitution and to state corresponding responsibilities and roles of producers, etc. in related laws and systems.
 - Social consensus is needed on compensating the agricultural sector for the provision of multifunctionality.
 - The sustainability of agriculture should be enhanced by alleviating side effects accumulated under the existing agricultural policy of productivism.

- ** Multifunctionality needs to be increased to solve environmental loads due to high-input, intensive farming (the weakening of environmental sustainability); the gap between production and income and a rise in production costs (the weakening of economic sustainability); and the expansion of negative perception of support for agriculture (the weakening of social sustainability).
- It is required to decrease inefficient distribution of resources and strengthen cross compliance by changing the unit of the current direct payment programs for management stabilization from products to farmland.
 - It is necessary to consider integrating the fixed direct payment program for rice and the direct payment program for dry-field farming into a tentatively named "direct payment program for farmland management."
 - ** The direct payment program for farmland management targets all farm households and basically provides direct payments in case of cross compliance strengthened from the present conditions. In this process, it is required to review key issues such as unit price and the content and level of cross compliance.
 - It is needed to consider changing the variable direct payment program for rice to fixed or decoupled direct payments.
 - Strengthening methods to stabilize management, including the expansion of revenue insurance, can relieve the instability of farm household income and increase farmers' acceptance.
- It is necessary to integrate diverse policy projects for agricultural multifunctionality, such as the current direct payment programs for public functions, into a tentatively named "Policy Project for Agri-Environment Conservation."
 - It is required to identify and gradually expand various activities for providing agricultural multifunctionality.
 - It is needed to strengthen providing multifunctionality and increase the sustainability of agriculture by reforming direct payment programs in the direction of enhancing the function of environmental conservation among cross-compliance conditions.
 - It is necessary to consider providing direct payments for agricultural holdings that participate
 in activities which satisfy the reference level stricter than cross compliance of the direct
 payment program for farmland management. Concrete projects and activities can be adjusted
 according to regional situations.

- It is required to form social consensus and lay the grounds for support by reforming and strengthening multifunctionality-based policy projects.
 - It is needed to integrate projects including direct payment programs for public purposes into a tentatively named "contribution payment program."
 - In the medium and long term, it is necessary to consider abolishing the current direct payment programs for structural improvement or integrating them with other policy projects.
 - Also, it is required to reorganize policy projects other than direct payment programs that can conflict with providing multifunctionality in the medium and long term.

2.2. Systematically set up national and regional food plans³⁾

- □ Interest in food-related issues and their ripple effects have increased.
 - Diverse food-related issues have resulted from rapidly changing conditions surrounding food, including socio-demographic conditions such as a rise in single-person households and population aging, and industrial, economic or technological conditions including the expansion of agri-food market opening, an increase in national income, and science and technology development.
 - Between 2007 and 2008, the world food crisis caused by international grain market instability and a rise in agri-food imports due to market globalization threatened food security based on domestic agricultural products.
 - Korea's food self-sufficiency rate fell from 70.3% in 1990 to 55.6% in 2000 and to 50.2% in 2015. As for the Global Food Security Index, Korea ranked 21st in 2012 and 24th in 2017.
 - Large-scale food trade among countries due to market opening increased the scale of food safety accidents. Despite government efforts, new hazardous substances caused by the development of science and technology and climate change have led to the people's distrust and anxiety regarding food safety.
 - Food safety accidents occurred continuously, including adulterated bun stuffing (2004), powdered milk with melamine (2008), the egg contamination scandal (2017), and hemolytic uremic syndrome (2017). Affecting Korea or the world, these kinds of accidents caused the people's distrust of food safety and government food policy.

³⁾ Hwang Yunjae (senior research fellow)

- The diet and nutrition imbalance among social strata due to income polarization, low growth, and changes in the population structure intensified food inequality and increased diseases caused by diet. Also, the westernized diet, changes in agricultural, rural, and environmental conditions, and the lack of public understanding of the value of agriculture and rural communities have led to food loss and waste, and threatened the sustainability of agriculture.
 - In 2016, Korea's food vulnerable population accounted for 10.2% of the total population, and the obesity prevalence rate was 35.5%. The socio-economic cost due to obesity reached KRW 9 trillion 200 billion in 2015.
 - The amount of food waste was 15,340 tons/day in 2015, and the treatment cost is KRW 1 trillion per year.
- ☐ The current policies have limits due to the lack of an integrated approach to food issues.
 - O Although the food safety, nutrition, supply, environment, and industry sectors are highly related, coordination and integration among ministries in implementing policies has been insufficient. Because domestic food-related duties and laws are dispersed into about 10 ministries including the Ministry of Agriculture, Food and Rural Affairs (MAFRA) and the Ministry of Food and Drug Safety (MFDS), and the government's food-related plans are established independently by ministry and by sector, policy effects through the linkage of the policies are inadequate.
 - Food-related duties are dispersed in approximately 10 ministries by duties such as agri-food industry development (MAFRA), food safety (the MFDS), nutrition (the Ministry of Health and Welfare), and school meals (the Ministry of Education).
 - Food-related plans are set up and implemented independently by ministry and by sector, including the Development Plan for Agriculture, Rural Communities and the Food Industry; the Master Plan for Promoting the Food Industry; and the Children's Diet Safety Control Plan.
- □ It is required to strengthen the sustainability of the food system and secure basic rights to food by establishing national and regional food plans.
 - National responses are necessary to stably secure safe, high-quality food for the people, and to realize the sustainability of the national food system. It is needed to set up and implement national food plans for an integrated approach to the processes of food production, distribution, consumption, and disposal, and diverse food-related issues.

- Major countries such as the UK (2010) and France (2010, 2014) established national food plans for the development of agriculture and the food industry based on securing food for the people and on sustainability.
- It is required to set a target food self-sufficiency rate considering population changes, nutrition, etc.; to implement food policies based on national consensus on the importance of food security; to reduce vulnerable groups' food insecurity and contribute to farm management stabilization by expanding public meal services linked with regional agriculture; to consider the environment in agricultural production; to balance food safety and industry promotion policy; and to implement a consistent food safety policy from production to consumption.
- It is necessary to set up policies based on national consensus and fulfill the people's need through coordination of food plans by creating a private-public governance system in which the private and public sectors participate jointly. Also, it is needed to continue implementing policies by building a practical policy cooperation and implementation system among central government ministries.
 - The legal basis is necessary to secure the stable implementation of the national food plan.
 - It is needed to implement comprehensive policy through the linkage of food production, safety, nutrition, supply, environment, and industry policies by establishing private-public governance including farmer groups and consumer groups, and by building a cooperation system for related policies among central government ministries and in a ministry.
- It is required to lay the foundation for supporting the establishment of regional food plans in order to realize an integrated national vision in regions, create a regional circular food production-consumption system suitable for local conditions, and boost the regional economy and communities.
 - The sustainability of food should be enhanced by maintaining the community-based agricultural production base and establishing a food system considering the environment.
 - It is needed to secure farm households' stable markets through local food and the regional food industry and to boost the regional economy by creating jobs.

2.3. Decentralize agricultural policy and reform governance⁴⁾

- □ Decentralization is one of the Moon Jaein government's major national policy directions. Governance reform is necessary for decentralization in the agricultural policy sector.
 - Decentralization is emerging as an important political issue, which is expected to affect the agricultural policy implementation system.
 - Among the Moon government's 100 national policy tasks, the national policy goal of "balanced regional development" includes "decentralization for grassroots democracy" and "rural areas where people return."
 - In his New Year's address in 2018, President Moon announced the will to strengthen decentralization and autonomy, saying that local governments have enough capacities.
 - Decentralization has become a social issue, with four groups representing the councils and local governments at the province and county levels carrying out a constitutional amendment campaign for decentralization.
 - Decentralization will strengthen local governments' differentiated policies and regional independence. Different agricultural and rural conditions by region are expected to strengthen regional differentiation of agricultural policy.
 - Changes are expected in agricultural policy governance that plans, checks, and evaluates central and local agricultural policies.
 - President Moon said that he would take care of agricultural policy at first hand, pledging to set up the Presidential Special Agency on Agriculture and Fisheries and to guarantee farmers' and fishers' participation in agricultural policy by enacting a law on Chambers of Agriculture and Fisheries.
 - The Presidential Special Agency on Agriculture and Fisheries is an element of agricultural policy governance at the central level, and the Chambers of Agriculture and Fisheries are one encompassing the central and local areas. The Agency and the Chambers are expected to strengthen the private sector's role.
 - Some people consider the Presidential Committee not as governance but as an advisory body. However, the Committee was proposed as part of means by which the President takes care of agricultural policy at first hand. Therefore, it is appropriate to consider the Committee as a governance body in which various groups participate, rather than as a simple advisory body.

⁴⁾ Gouk Seungyong (senior research fellow)

- Laws related to the Special Agency on Agriculture and Fisheries and Chambers of Agriculture and Fisheries are in the process of legislation.
- The following changes in the agricultural policy system are forecasted: emphasis on the role of local agricultural policy and the expansion of farmers' participation in agricultural policy in terms of the agricultural policy direction and related systems.
- ☐ The institutional foundation should be laid to reform agricultural policy governance.
 - It is necessary to enact laws related to the Special Agency on Agriculture and Fisheries and Chambers of Agriculture and Fisheries.
 - Establishing agricultural policy governance at the central level is needed, including laying the institutional foundation regarding the Special Agency on Agriculture and Fisheries and organizing the Agency.
 - The legal status and function of the Agency should be strengthened by integrating the government advisory body related to agricultural policy (the Council for Deliberation on Policies, etc.) into the Agency.
 - It is required to lay the institutional foundation for local agricultural policy governance by enacting the law on Chambers of Agriculture and Fisheries.
 - It is needed to consider reforming relevant laws and systems to improve the effectiveness of agricultural policy governance.
 - It is necessary to coordinate the status and role of the Council for Deliberation on Policies in the Framework Act on Agriculture and Fisheries, Rural Community and Food Industry and of the new agricultural policy governance agency.
 - For the new agricultural policy governance to affect agricultural policies, it is required to revise regulations on planning and deliberation in the Framework Act on Agriculture and Fisheries, Rural Community and Food Industry, so that the policies can reflect the contents of discussions.
- □ Plans to improve the agricultural policy system and agri-food finances are necessary to strengthen decentralization of agricultural policy.
 - A support system should be enhanced regarding the planning and enforcement of and feedback on local agricultural policy.

- To establish local agricultural policy, it is required to reform the current agricultural policy system and agri-food finances centered on the central government.
- Local governments should have capacities through the partial transfer of rights and responsibilities concerning agricultural policy, and the establishment of an organizational system for implementing local agricultural policy.
- It is needed to prepare plans for the agricultural policy implementation system that enables the stable implementation of local agricultural policy.
 - Capacities for implementing specialized regional agricultural policy should be enhanced by reorganizing city/province Agricultural Research & Extension Services and city/county Agricultural Technology Centers focused on agricultural technologies into tentatively named "city/province Agricultural and Rural Development Institutes" and "city/county Agricultural and Rural Development Centers."
 - It is necessary to create conditions for the linked development of central and local agricultural
 policies by seeking a system where local organizations of central agencies, including the
 National Agricultural Products Quality Management Service and the Korea Rural
 Community Corporation, can support and cooperate with local agricultural policy.
- It is required to strengthen the responsibilities and rights of local agricultural policy by setting up a plan to reform the operation of agri-food finances.
 - To strengthen local agricultural policy, it is needed to expand local governments' rights to draw up and execute local agricultural policy finances, which is closely related to the structural reform of the central agri-food finances. In the present situation that local governments highly depend on the central government's support for agri-food finances, it is difficult to expand and strengthen local agricultural policy without reforming the structure of the central agri-food finances.
 - Improvement plans are necessary to enhance the autonomy of local governments' agricultural budgetary programs, including the expansion of block grants in the central government's budgetary programs in the agriculture sector.

2.4. Regenerate rural areas into beautiful, livable ones⁵⁾

- ☐ The deteriorated living environment and population decline in rural areas for a long time decreased the quality of rural life.
 - The rural population, which was 18.17 million people, 58.8% of Korea's total population in the 1970s, slightly grew recently due to returning to farming and rural communities, but is only 18.4% (as of 2015).
 - With the population decline, rural aging has become relatively intensified.
 - ** The proportion of the population aged 65 and over in the total population (2015): (nationwide) 13.2%, (rural areas) 21.4%
 - The intensification of rural aging and depopulation has led to the inadequacy of the basic living infrastructure that residents need urgently.
 - ** Out of 31 living services, more than 70% of facilities cannot be accessed within 15 minutes in 3,014 villages (8.2%).
 - The continued urban-rural gap has made the rural living environment more vulnerable than the urban one, and decreased rural residents' residential satisfaction.
 - ** The road pavement rate (2014): (nationwide) 83.4%, (rural areas) 46.8% / The cultural and art attendance rate (2016): large cities 81%, *eups* (towns) and *myeons* (townships) 65%
 - Rural residential satisfaction by sector was 0.5-2.0 points lower (on a 10-point scale) compared to cities.
- □ Urban-type development disharmonious with rural areas has damaged rurality.
 - Urban-type development destroyed rurality, decreasing diverse environmental, ecological, landscape, and cultural values of rural regions.
 - Many paddies, fields, and forestlands in non-urbanized areas are converted for urban purposes of land use (sites for buildings, factories, storehouses, etc.). Dispersed small-scale development without thought for the environment resulted in serious ecological and landscape damage.
 - * The percentage of paddies, fields, and forestlands converted for urban purposes of land use in Gyeonggi-do for the past 10 years: 67.0%

⁵⁾ Song Miryung (research director) and Sim Jaehun (senior research fellow)

- □ Rural regeneration is necessary for the inclusive growth of rural and urban areas.
 - Rural regeneration is to efficiently develop rural regions into livable places without residents' inconvenience, and to restore rurality and vitalize rural areas at the same time by using various tangible and intangible rural assets including landscape, history, and culture.
 - Preserving and improving multiple values of rural areas contributes to enhancing the quality of rural life and the value of territory.
 - It is required to create opportunities for new growth in an era of low growth by preventing the chained collapse of urban-rural areas and conserving rurality.
 - The reproduction of the rural population is needed as a solution to the super-low birth rate in urban areas due to job insecurity, high housing costs, and so on.
 - The people's demand for clean and abundant rurality is increasing, which enables the creation of a new economic value of rural areas.
 - Rural regeneration is an important means of smart reduction strategy to vitalize communities by linking villages and the center.
 - Smart reduction strategy: to make a rural center the base, connect the center and villages, and pursue development through communities' autonomous use of neglected or underutilized assets in rural areas
- □ Various rural regeneration projects should be carried out to increase the quality of life and conserve rurality.
 - O It is needed to better utilize idle assets in rural regions by thoroughly investigating and systematically remodeling unused facilities, empty or deserted houses, fallow land, etc. and to strengthen rural living services by expanding software projects.
 - It is required to enhance the quality of rural life and expand rural-specific jobs through workforce and budget support for the operation of the facilities and programs.
 - Creating a small center to reduce the gap in rural areas and to restore a living zone that links the rural center and villages increases basic living services more insufficient in rural areas than in urban areas and provides welfare services customized to rural characteristics.
 - It is necessary to make all people in Korea live well evenly through "Rural 3.6.5 Living Zone" with accessibility to basic living services within 30 minutes, accessibility to high-level living services within 60 minutes, and early response for emergency services within five minutes.

- It is needed to concentrate economic, educational, medical, and cultural services on the seat of a town/township office, and strengthen "village-town/township-city" service accessibility.
 - * Accessibility should increase by expanding rural transportation models, such as the 100-won taxi service and demand responsive buses, to the entire nation.
- It is required to complete a public service delivery system by creating a small center that can
 provide basic living services for service-deprived areas and linking it with a higher-level
 center.
- The public function of rural communities should be strengthened through rural regeneration that conserves agricultural and rural heritage.
 - Rural areas can be regenerated into a space for living, recreation, tourism, and healing through the designation and management of the rural heritage to preserve rurality including rural ecosystems, landscape, history, and culture.
 - Making rural communities ecological museums through this enables the people to enjoy the value of rural communities.
- It is necessary to introduce a planning agreement system that integrates individual projects related to rural regeneration and provides comprehensive support.
 - It is required to establish rural plans by integrating rural development projects, rural cultural/welfare projects, and projects related to the sixth industrialization and agriculture, and to comprehensively support relevant projects through agreements between the local areas and MAFRA.
- Through rural regeneration, it is needed to create jobs for innovative growth linked with community activities, such as improving rural settlement conditions and using specialized resources.
 - It is necessary to develop and expand new social farming models that boost the rural economy and provide healing and employment services through package support including small-scale community activities, vocational training and business start-up education, renewable energy use, and facilities linked with village tours.

2.5. Revitalize rural areas by expanding the rural social economy⁶⁾

- □ Now is the time to practice the social economy in order to enhance the quality of rural residents' lives.
 - The rural population decline and aging lowered accessibility to goods or living services that rural residents need for living, which made it difficult to improve the quality of rural life and maintain jobs.
 - In this market failure that the population and agents supplying goods and living services are decreasing, the social economy is necessary in areas where the public sector cannot solve problems directly.
 - In rural communities, social economy agents' activities contribute to nurturing healthy communities.
 - Social economy organizations make efforts to maintain cooperative relationships, and this
 cooperation becomes the foundation for forming social capital in rural communities and
 maintaining the communities.
 - The process of operating social economy organizations based on residents' participation contributes to creating jobs and strengthening human capacities in rural areas.
 - Now is the time to boost the social economy using conditions favorable to rural areas, including a rise in returning to farming and rural communities.
 - People returning to farming and rural communities, especially those under 40 years old, are increasing. They can carry out diverse social economy activities in rural regions, so it is necessary to set up plans to utilize these people as agents vitalizing rural communities.
- □ Strategies are needed to ensure internal stability of social economy organizations and expand their cooperation network.
 - With the enactment of the Framework Act on Cooperatives in 2012 and the expansion of government policies, social economy organizations have increased.
 - Social economy organizations in rural areas are estimated to be more than 3,000. Given the
 proportions of the economically active population in urban and rural areas, these organizations
 have been established more actively in rural areas.
 - * 17.7% (2,233) of the total cooperatives and 21.4% (412) of social enterprises are in rural eups and myeons.

⁶⁾ Kim Jeongseop (senior research fellow) and Chung Dochae (research fellow)

- * If the existing cooperatives (agricultural, fisheries, credit cooperatives, etc.) are also included, the number of social economy organizations in rural areas increases.
- In rural communities, the social economy is actively expanding in agriculture, the key industry, and the social service sector directly linked with the quality of residents' lives.
 - Social economy organizations' main business areas are agricultural production, processing and marketing (36.7%) and the provision of social services such as medical care and education (18.9%).
 - The average size of rural social economy organizations' total asset is small (KRW 300 million), and their management conditions are poor. Organizations with more debts than owners' equity account for 25% of the total organizations.
 - Recently, people are taking interest in social farming that tries to integrate disadvantaged people in communities (disabled or old people, adolescents, etc.) with a focus on agricultural activities. Social farming has been on the main policy agenda related to the social economy.
- ☐ The foundation for the social economy should be laid in rural areas.
 - It is needed to actively use social economy strategies in solving the problems in rural communities.
 - It is required to expand participation of social economy organizations including cooperatives in such movements as local food, regional food plans, and the sixth industralization of agriculture.
 - Social economy strategies should be developed in response to the worsening conditions of rural living services mainly caused by market failure.
 - It is necessary to develop rural-specific transportation models that social economy organizations, including residents' cooperatives and agricultural cooperatives, deal with blind spots in public transportation.
 - * Specialized regional social services should be developed and operated through cooperation among local governments, social economy organizations, etc.
 - It is required to implement pilot projects and enact a related law to boost social farming that helps vulnerable groups to adapt to society and induces social integration through jobs.
 - It is needed to nurture social economy organizations and secure human resources in rural areas.
 - Because the social economy sector has not taken deep root, it is necessary to support the founding of social economy organizations through special financial instruments.

- * It is required to expand local agricultural cooperatives' investment in social economy organizations, support crowd funding, implement the Social Impact Bond (SIB) Project, and allow these organizations to invest in credit cooperatives.
- A protected market and technical support policy are necessary to help the continuous growth
 of social economy organizations that pursue social purposes first. It is needed to expand such
 policies as a preferential purchasing system in public procurement and support for promotion
 and marketing.
- Policies should be implemented to secure human resources who will participate in rural social economy organizations.
 - ** These policies should be connected with various rural development policies so that native residents and people who returned to farming and rural communities can consider social economy strategies in solving problems in the communities together. For example, it is possible to recommend social economy organizations' active participation in the General Rural Development Project, etc.
 - It is necessary to support people returning to farming and rural communities who are interested in rural vitalization as well as in agriculture, especially young people, so that they can become social economy activists.
 - * The operation of intermediary support organizations should be supported as units that help residents' activities for the social economy.
- It is required to lay the foundation for implementing medium- and long-term policies by improving laws related to the social economy.
 - It is needed to review and enact relevant bills that have been submitted, including the Framework Act on the Social Economy, the Framework Act on Realization of Social Value, and the Act on Public Institutions' Support for Development of Markets, and to draw up a bill on support of the social economy.
 - Local governance should be formed by improving ordinances for social economy organizations' activities to be carried out in a close partnership with local governments.

2.6. Lead agricultural innovative growth through young people's farm start-up⁷⁾

- □ With rural aging and a slowdown in the growth of agricultural productivity, young people's farm start-up is urgent currently.
 - In Korea, with a decrease in farm households, rural aging is more serious than in Japan.
 - The proportion of farmers aged 65 or over in Korea: 21.7% (2000) \rightarrow 40.3% (2016) (Japan: $28.1\% \rightarrow 39.7\%$)
 - There is only one farm household under 40 years old per three rural villages: as of 2015, there are 36,792 rural villages (administrative *ris*) and 10,264 farm households under 40 years old living in *eup* or *myeon* (total young farmers: 14,366 households), according to Statistics Korea (2015).
 - The increase rate of farm households' labor productivity has been on the decline.
 - The annual increase rate of farm households' labor productivity fell from 22.1% in the 1970s to 14.0% in the 1980s, 8.7% in the 1990s, and 3.2% in the 2000s.
 - * According to the 2015 Agricultural Census, only 39.0% of the total farmers are high school graduates or higher. This figure is below half of the industrial average (83.5%).
 - Despite their small number, young farmers are showing the possibility of leading agricultural innovative growth.
 - Although farmers under 40 years old (14,366 households) account for 1.3% of total farm households, 97.3% of the young farmers are high school graduates or higher. College graduates or higher also account for 64.0% of the young farmers, a higher level than the industrial average (43.7%).
 - Young farm households' value added per labor hour (labor productivity) is KRW 42,204, 2.4 times that of total farm households (KRW 17,811). The land productivity of young farm households is double that of total farm households.
 - With fourth industrial revolution technologies such as smart farms expanding in agriculture too, the influx of the young generation who are accustomed to using computers and smartphones and can better accept new technologies is urgent.

⁷⁾ Ma Sangjin (senior research fellow)

- □ A young beginning farmer ecosystem should be created.
 - Even though there were diverse policies for young beginning farmers, including the Project for Fostering Agricultural Business Successors, the policies had limits.
 - Since the 1970s, various policy projects for capital, technical, and social support to foster young farmers have been implemented, including the Agricultural School Fostering Project, the Project for Fostering Agricultural Business Successors, and the Support Project for Returning to Farming and Rural Communities. The diverse support projects have been implemented through MAFRA; rural development institutes (the Rural Development Administration, etc.); the Korea Agency of Education, Promotion and Information Service in Food, Agriculture, Forestry and Fisheries; the Korea Rural Community Corporation; the National Agricultural Cooperative Federation; local governments, and so on. However, satisfaction with the projects in the field is not high.
 - Partial alternatives include improving young farmers' accessibility to farmland, decreasing lending rates of farm start-up funds, extending grace and repayment periods, increasing credit lines, expanding credit guarantee for loans, and increasing customized, field-centered education. Nevertheless, separate, temporary solutions by problem related to young beginning farmers which have been adopted so far cannot be fundamental solutions.
 - To foster young farmers, an ecosystem for farm start-up should be established.
 - It is required to create this ecosystem where beginning farmers and farm start-up support organizations work organically with a more comprehensive, systematic approach to fostering young farmers and that continually nurtures young beginning farmers.
 - It is needed to set up a young farmer model that shows young beginning farmers' concrete goal; to classify stages of beginning farming into preparation, start-up, re-strategizing, and establishing; and to provide different support for influx/settlement by farming type (successive beginning farmers, new beginning farmers). Also, it is required to create a regional system that provides integrated support, including capital, technical, and social factors, by stage of beginning farming or by farming type.
 - It is necessary to set up a young farmer model that balances vocational, economic, and social successes.
 - Young farmers should be prosperous farmers economically, professional farm managers vocationally, and ethical agricultural producers socially. Ethical agricultural producers mean producers who supply safe food to the people and contribute to the development of

neighboring farmers and rural areas as well as their own development; and farmers who practice social responsibility as guardians of agriculture and rural communities with multifunctionality.

- It is needed to establish regional agricultural workforce development plans and operate organizations in full charge of them.
 - It is required to set up regional goals of nurturing young farmers which reflect local agricultural characteristics, and to decide how to select, train, and settle young farmers who help regional development.
 - It is necessary to link various available human and material resources related with regional agricultural workforce development by promoting governance among actors related to fostering the regional agricultural workforce, and to operate support organizations fully in charge of agricultural workforce development including roles related to returning to farming, agricultural education, and agricultural employment, as well as regional young people's farm start-up.
 - The regional support organizations should classify types of young beginning farmers and provide customized support by type (successive farm start-up, the third person's successive farm start-up, farm start-up after corporate experience, leased farm start-up, joint farm start-up).
- It is needed to support young farmers' quality of life.
 - From 2018, beginning farmer support funds are provided. For this program to have positive effects including medium- and long-term life design as a farmer and contribution to rural communities, it is necessary to implement long-term agricultural structure policy and agricultural workforce development policy for long-term investment in agricultural and rural vitalization, rather than excessively controlling over beneficiaries, and to provide support in terms of giving opportunities for them to play various roles in communities.
 - Also, it is required to expand the Workforce Support Project for Vulnerable Farmers that is currently implemented.

2.7. Make agriculture a future growth industry by applying fourth industrial revolution technologies⁸⁾

- □ Introducing fourth industrial revolution technologies in the Korean agriculture sector can be an opportunity for the sector to make a leap forward.
 - The agricultural sector's problems include stagnant agricultural income, the decrease in and aging of the farm household population, a decline in the food self-sufficiency rate, unstable supply and demand, and environmental pollution.
 - Korea's agricultural income was stagnant for 15 years at KRW 11.3 million from 2001 to 2015. The farm household population plunged from 4 million people in 2000 to 2.6 million people in 2015. The percentage of farm operators aged 65 or over soared from 19% in 1990 to 56% in 2014. The food self-sufficiency rate dropped from 43% in 1990 to 24% in 2016.
 - Changes in production due to growth situations lead to great price fluctuations and many difficulties in stably securing food for the people.
 - The production and distribution stages have not sufficiently reflected changes in consumer needs, and the use of chemical fertilizers and pesticides has increased environmental loads.
 - As alternatives to solve these problems, it is necessary to develop and disseminate robots, drones, autonomous farming machines, and so on to end users—farmers—by linking agriculture with key technologies of the fourth industrial revolution, the Internet of Things (IoT), big data, cloud computing, deep learning, artificial intelligence (AI), etc.
- □ Expected performances of the introduction of fourth industrial revolution technologies
 - The production sector: Introducing an automated system, robots, etc. can alleviate labor shortage and enables multi-variable control of environmental factors. Collecting, analyzing, and automatically controlling data on growth, soil quality, weather, and so on through the IoT can increase productivity and quality.
 - The distribution sector: Monitoring all agricultural marketing processes, including IoT-based traceability and hazard control, can improve food safety, and promoting video auctions and direct transactions can reduce distribution costs. It is possible to stabilize agricultural supply and demand through a supply-demand forecasting system based on big data.

⁸⁾ Kim Byungryul and Kim Yeanjung (research directors)

- The consumption sector: Information such as traceability, country-of-origin labelling, and residual pesticides is provided for consumers through the IoT. Also, supply that reflects the amount and time of consumers' purchase by analyzing big data increases consumer satisfaction.
- The environment sector: Environment-friendly precision agriculture can be realized by gathering and analyzing data on soil quality, nutrients, disease and pest, weather, etc. through the IoT and by applying the proper amount of fertilizers and pesticides at the right time through robots, drones, etc.
- ☐ It is required to implement policies for applying the fourth industrial revolution to agriculture.
 - It is needed to develop the first-generation smart farm centered on remote control into the second-generation smart farm based on precision cultivation and automatic control, and to expand the development and dissemination of management software for analyzing growth information, forecasting yields, etc. The third-generation smart farm after 2022 will automatically control growing conditions through remote sensing, and enter the global market by applying international standards and standardizing parts.
 - Horticulture: 4,500 ha (2017) \rightarrow 7,000 ha (2022), Livestock production: 1,350 households (2017) \rightarrow 5,000 households (2022)
 - In response to the decrease in and aging of the farm household population, farm work should be automated. Particularly, it is necessary to enhance the mechanization rate of dry-field farming that requires high labor input, and to develop the global market for smart agricultural robots.
 - The mechanization rate of dry-field farming: 55% (2017) \rightarrow 75% (2022)
 - It is needed to stabilize agricultural supply and demand and improve consumer trust by establishing a smart distribution system that shares and utilizes overall distribution data on shipments, quality, safety, etc. in real time.
 - It is necessary to develop and introduce a supply-demand forecasting system for five vegetables (including chilies and garlic) based on big data; a smart distribution net such as video auctions; and technologies including video grading machines for livestock products.
 - Distribution cost reduction: 55% (2016) \rightarrow 45% (2022)
 - Damage to farm households should be minimized by building a smart disaster response system to forecast and proactively respond to disasters including abnormal weather.

- It is required to create disaster forecasting maps by region and by product and a farm-unit early warning system in order to respond to disasters in advance.
- It is needed to develop technologies for forecasting migratory birds and for spraying disinfectant by using drones and so on, and to develop big data-based models for forecasting and responding to the spread of foot-and-mouth disease and avian influenza.
- Customized services should be provided for farmers' decision-making regarding farming by building an agriculture-related big data platform.
 - It is necessary to establish a system for producing, analyzing, and diffusing convergence information by using big data accumulated in the information system.
 - A joint private-public platform should be created to support utilizing and analyzing big data.
 - It is required to build a system that can provide information which users (farmers) need by time and by stage.
- ☐ Medium- and long-term tasks for making agriculture a future growth industry
 - Train experts for the application and expansion of fourth industrial revolution technologies to agriculture; promote private investment; develop and disseminate applications for agriculture
 - Prepare laws, regulations, data infrastructure, and a medium- and long-term R&D road map to create an ecosystem for agricultural innovation
 - Strengthen each agent's capacity; set up and operate a control tower; establish a network of the industry, academia, and research institutes; promote downstream and upstream industries

2.8. Implement a rice production control program and reset target price⁹⁾

- ☐ The progress of discussions on the rice production control program and target price
 - With continued rice oversupply and overstock, the Moon Jaein government launched in May 2017 pledged to improve the oversupply structure by implementing a strong production control program and to preserve farm household income by reflecting the rate of inflation in target price.

⁹⁾ Kim Jongjin (senior research fellow) and Kim Jongin (research fellow)

- A downward trend in rice prices in producing areas due to excessive production since 2013 has led to reverse seasonal amplitude for three years in a row, and a rise in direct payments has increased the government's financial burden. In this situation, it is urgent to introduce the production control program (the Project for Supporting Cultivation of Other Crops in Paddies) that can immediately reduce rice production.
- A fall in rice prices has spread anxiety among farmers, and there has been a growing interest in resetting target price for a variable direct payment program to be applied from 2018.
- The rice industry policy represented by the strong production control program and a raise in target price aims to improve the rice oversupply structure, support farm household income, and relieve the government's financial burden at the same time.
- The rice production control program aims to reduce rice cultivation acreage of 50,000 ha in 2018 and 2019 respectively (a total of 100,000 ha), and is planned to be implemented temporarily given the government's financial burden.
 - The government secured the budget of KRW 170.8 billion for the implementation of the program, and announced a concrete implementation plan early January this year.
 - The support unit price was set at KRW 3.4 million per ha on average. However, given the difference from rice income, farming convenience, and so forth, the unit prices were differentiated by product group: KRW 4 million/ha for roughage; KRW 3.4 million/ha for general and green manure crops; and KRW 2.8 million/ha for pulses.
- Discussion is in progress on raising target price to reflect the rate of inflation, and concrete plans are being considered.
 - There are conflicts between the following two opinions: some scholars are concerned about the intensification of supply-demand imbalance and an increase in government funding due to a rise in target price, while farmers' groups etc. consider the rise necessary to preserve farm household income.
- The proactive response in rice harvest season of 2017 increased the rice price in the harvest season by 18% from the previous year (to KRW 153,213/80kg). Nevertheless, oversupply and overstock problems have continued.
 - The government's ending stock in the 2018 crop year is forecasted at 1.68 million tons, more than twice the optimum stock level.

- ☐ It is required to make efforts to achieve the goal of the production control program and seek alternatives to prevent rice acreage from returning to the past level.
 - For the production control program to accomplish the target acreage, policy efforts are needed first. Also, policy alternatives are necessary to induce farmers not to cultivate rice again after the end of the program.
 - At the end of 2017, the Korea Rural Economic Institute surveyed its sample rice farm households on the acreage with which they intended to participate in the program in 2018. The result shows that the acreage is estimated to be approximately 27,000 ha this year, which implies that additional policy efforts are needed to achieve the target, 50,000 ha.
 - The intended acreage for the program less than the target seems to result from expectations of a rise in rice prices, an increase in old farmers, the lack of alternative crops, and so on.
 - On the implementation process of a similar policy project (the Paddy Income Base Diversification Project), rice acreage did not decrease as planned due to supply and demand improvement caused by temporary poor rice harvests, etc., which maintained the oversupply structure. This should not be repeated.
 - For this, policy efforts are necessary to achieve the target acreage reduction next year in addition to the attainment of this year's target acreage. Additionally, the production base and supply-demand plans for alternative crops are required from the medium- and long-term perspective to minimize returning to rice cultivation after the end of the production control program.
- □ A target price compromise is needed, considering both farm household income preservation and the structural oversupply problem.
 - It is necessary to set sustainable target prices in the medium and long term, reducing social conflicts by sufficiently reviewing and discussing how to reflect the rate of inflation in rice target prices.
 - A high target price can preserve farm household income but can worsen the rice oversupply structure.
 - An excessive raise in target price may hinder the achievement of the target acreage of the production control program by inducing rice cultivation and intensifying the oversupply structure.
 - Also, excessively raising target price without improving the oversupply structure may lead to

insufficient farm household income preservation, as total variable direct payments may exceed AMS limits.

- Therefore, it is necessary to compromise on a target price that can preserve farm household income and stabilize rice supply and demand.
- The government rice policy is expected to help preserve farm household income and improve the rice supply and demand problem in the short term. Nonetheless, the policy is difficult to continue because its goal conflicts with its expected effects. Therefore, it is required to establish medium- and long-term policy alternatives.
 - Because raising target price will induce rice cultivation, supply and demand can be balanced only if production control acreage is increased through financial input.
 - In the medium and long term, it is needed to implement a policy for reducing factors that induce rice production through the decoupling of variable direct payments or through fixed direct payments, and a policy for establishing the production base for food crops other than rice and improving their profitability. That is, in addition to improving the rice supply and demand structure, it is necessary to seek ways to enhance the food self-sufficiency rate and farm household income.

2.9. Innovate the livestock rearing environment and the disease prevention system¹⁰⁾

☐ It is required to end avian influenza (AI) early and prevent its recurrence.

- In addition to a mass cull due to the large-scale outbreak of AI in 2016 and 2017, 14 cases of AI broke out starting in Gochang, Jeollabuk-do, November 17, 2017, until January 14, 2018.
 - The AI that broke out recently is the same type as H5N6 which broke out last year. Thus, the nationwide spread of this AI may lead to a mass cull similar to last year's. Accordingly, efforts are being made to prevent the spread of AI through a strong early response.
- Oue to the outbreak of AI and the mass cull between 2016 and 2017, MAFRA strengthened disease prevention by drafting "Detailed Tasks of the Comprehensive Plan for AI Prevention" in July 2017, and is drawing up a "Plan to Innovate the Livestock Industry for Sustainable Growth" to fundamentally improve disease prevention, sanitation, and safety problems of the industry.

¹⁰⁾ Ji Inbae (senior research fellow)

- OIt is needed to end AI early and prevent its recurrence and to strengthen sanitary and safety control of livestock products by fundamentally improving the structure of the livestock industry as follows: thoroughly implementing the Comprehensive Plan for AI Prevention improved in 2017; improving facilities of livestock farms; strengthening disease prevention activities; enhancing feeding management; and establishing an animal-welfare livestock industry.
 - A regular disease prevention system should be created. In particular, it is essential to discover
 the outbreak of AI early and respond to it promptly by strengthening regular monitoring of
 duck farms, the main cause of the spread of the disease.
 - For this, it is necessary to improve farms' efforts to prevent disease by mandating the installation of disease prevention facilities at entrances of poultry farms and supporting it, and by installing CCTVs at all poultry farms.
 - It is required to strengthen regular monitoring of farms in densely populated duck areas and the farms where AI broke out, and to strengthen the Livestock Facility Modernization Project, including improving plastic duck houses into windowless poultry houses.
- It is needed to enhance the disease prevention system by strengthening incentives and penalties for affiliates and poultry farms, the agents producing poultry products, to induce voluntary efforts to prevent disease, and by securing local governments' disease prevention workforce.
 - For voluntary and active disease prevention activities, it is necessary to strengthen incentives for exemplary affiliates and farms, including raising compensation for a mass cull and livelihood stabilization funds. For agents whose disease prevention activities are inadequate, the strengthening and strict enforcement of penalty regulations is required.
 - To improve local governments' poor conditions for disease prevention duties, the governments' disease prevention workforce should increase. Also, it is needed to prevent disease efficiently by providing innovative incentives for this workforce.
- ☐ Illegal livestock pens should be improved to be legal.
 - Illegal livestock pens are pointed out as one of the major causes of odors and water pollution due to livestock excretions and of livestock disease. To fundamentally improve the structure of the livestock industry, it is crucial to solve the problem of these pens.

- Through the amendment of the Livestock Industry Act in 2012, MAFRA applied the permit system for livestock farming business to all livestock species from 2013, and the permit targets have increased in phases according to the area of the livestock pen. On the other hand, through the amendment of the Act on the Management and Use of Livestock Excreta in May 2012, the Ministry of Environment applied a grace period of three years for improving illegal livestock pens to be legal. The Ministry will order closure or suspension of use of illegal livestock pens in phases from March 25, 2018.
 - To alleviate farms' burden, MAFRA gradually mandates improving illegal livestock pens to be legal in three stages according to scale. The first stage is until March 24, 2018, the second until March 24, 2019, and the third until March 24, 2024.
- According to MAFRA, 24.5% (4,555 households) of the first target farms whose grace period ends on March 24, 2018 (18,000 households) improved their livestock pens to be legal, and 60.5% (6,710 households) are in the process of improving their livestock pens to be legal.
- Out of the target farms in the second and third stages (45,000 households), 48% improved their livestock pens to be legal (8,066 households) or are in the process of improving their livestock pens to be legal (13,688 households).
- When the government begins to order closure or suspension of use of illegal livestock pens from March 25, 2018, opposition from farm households who cannot improve their livestock pens to be legal is expected to become stronger. This will lead to confusion in the livestock industry and the market for livestock products.
- For the sustainable development of the livestock industry, policies are necessary to support farm households with illegal livestock pens to have modern facilities and be legally engaged in the livestock industry.
 - For this, it is required to implement policies such as living fund support in preparation for illegal livestock farms' shock due to business closure in the short term. Also, in the medium and long term, it is needed to permit these livestock farms to begin anew and to strengthen the Facility Modernization Support Project.
 - A new support system should be established by creating a new livestock production complex by region linked with the Livestock Cluster Project, etc., so that closed illegal livestock farms and farms in densely populated livestock areas can relocate to the complex and continue the livestock industry.

2.10. Respond to the expansion of protectionism and agricultural trade issues¹¹⁾

- ☐ The background and trend of the expansion of protectionism
 - Recently protectionism has expanded globally.
 - Since the global financial crisis in 2008, the world has entered a new normal era of low growth and high unemployment, and various forms of protectionism have expanded.
 - Particularly, the Trump administration of the US has led the global trend of protectionism by strengthening import regulations with anti-trade sentiment, linking an economic slowdown and job shortage with trade deficit. Also, given the midterm election in November this year, the administration is expected to accelerate trade pressure for visible outcomes in the trade sector.
 - New protectionism, caused for protecting declining industries of the US and other developed countries, is likely to expand to other economic sectors including agriculture, manufacturing, intellectual property rights, and services, and to emerging economies. This is expected to lead to an increase in international conflicts and disputes related to trade.
 - In EU countries including the UK, complex causes including industrial structure problems by country have expanded protectionism such as Brexit.
 - The multilateral trade negotiation system of the WTO has weakened, while plurilateral negotiations have been accelerated.
 - At the 11th WTO Ministerial Conference in Buenos Aires, Argentina, in December 2017, even the Ministerial Declaration could not be adopted due to conflicts between developed and developing countries, which weakened the driving force of WTO multilateral trade negotiations. Accordingly, to overcome the limit of the negotiations, discussions on plurilateral negotiations on specific agendas centered on developed countries will be accelerated.
 - Only WTO member states that want to participate take part in plurilateral negotiations. Developed countries have begun to discuss the negotiations since the DDA negotiations were deadlocked in 2008. Plurilateral negotiations include the Government Procurement Agreement (GPA), the Information Technology Agreement (ITA II), the Environmental Goods Agreement (EGA), and the Trade in Services Agreement (TiSA).

¹¹⁾ Cho Sungju and Kim Sanghyun (research fellows)

- ☐ Thorough preparation is necessary in response to agricultural trade issues and the expansion of protectionism.
 - It is needed to implement consistent trade policies and prepare effective domestic countermeasures.
 - To minimize social conflicts in the process of establishing and implementing domestic countermeasures due to trade policies, consistent trade policies are required. Also, effective domestic countermeasures should be prepared through continuous communication with experts and stakeholder groups.
 - It is necessary to form a national consensus on policy support for vulnerable sectors by comprehensively evaluating ripple effects of additional market opening on agriculture, with the Korea-US FTA amendment negotiations that began in earnest in 2018 as an opportunity.
 - It is required to create an active response system in preparation for agricultural trade disputes.
 - International disputes are expected to increase regarding agricultural trade regulations such as Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT). Therefore, it is needed to build an active response system including continual monitoring of other countries' agri-food trade systems, the development and reasonable operation of relevant domestic systems through the strengthening of related organizations.
 - Capacities for utilizing FTAs should be improved.
 - To expand exports of domestic agri-food utilizing FTAs with major countries, it is needed to provide a variety of information that is difficult for individual exporters to obtain. In particular, it is necessary to enhance preferential tariff utilization rates and expand export markets by providing information on diverse non-tariff measures including certification of origin, customs clearance, and laws and systems concerning agri-food.
 - To increase opportunities to export domestic agri-food by strengthening participation in the regional global value chain, it is required to actively use mega-FTAs (including RCEP) or plurilateral FTAs (such as MERCOSUR and EAEU).
 - \circ It is needed to expand the scope of agri-food export and diversify export markets.
 - Korea's agri-food export structure is concentrated on a small number of countries including Japan, China, and the US. However, to effectively respond to changes in trade conditions and expand stable export, export-related risks should be dispersed by diversifying export markets.
 - It is necessary to expand the scope of export including the export of biomaterials, plants/systems, technologies, and brands beyond agri-food export centered on products.