**Program for Cultivating New-type Professional Farmers**

**Case Summary**
China is institutionalizing the cultivation of new-type professional farmers and nurturing new-type professional farmers through human resource development, training, policy support and social security. Since 2014, the Central Government has earmarked 9.09 billion RMB for the Program, which underlines application of ICT in learning, mutual exchange, outcome-sharing and service provision for farmers. Thanks to the Program, over 1 million new-type professional farmers are trained each year.

**Key Points**

**Background:**
China is increasingly challenged by unprofessional farming, ageing farmers and empty rural areas. To nurture new farmers and revitalize rural areas, and implement China’s national strategy, MARA launched the Program for Cultivating New-type Professional Farmers in 2014 in collaboration with the Ministry of Finance, to accomplish the major tasks of institutional building, demonstration, and training. To date, the Program has received 9.09 billion RMB from the Central Budget and covered almost all agricultural counties in China. Thanks to the Program, over 1 million new-type professional farmers are trained each year.

**Competent Authority:**
The Ministry of Agriculture and Rural Affairs of the People’s Republic of China.

**Measures:**

- **First, national planning.** The National Plan on the Development of New-Type Professional Farmers for the Thirteenth Five-Year Period issued in 2017 outlines the overarching goals, methods and major projects for the cultivation of new-type professional farmers. It fosters a three-pronged cultivation framework of education and training, standard-based management, and policy support. The Notice on Cultivating New-type Professional Farmers published each year guides provinces in target selection, training organization, farmer management, and service extension. It adopts performance evaluation to make the cultivation work more targeted, regulated and effective.

- **Second, categorized training.** To nurture professional farmers in line with the Rural Revitalization Strategy, MARA has adopted a categorized training program to offer training tailored to 4 groups, including agricultural managers, modern young farm owners, leaders of agricultural professionals and leaders of new-type agribusiness. Demonstration training for teachers and agricultural entrepreneurs are held by MARA; outreach training for agricultural managers and modern young farm owners are organized by provinces; and technical training for leaders of agricultural professionals and leaders of new-type agribusiness are held by cities and counties.

- **Third, information application.** MARA set up the National Agricultural Technology and Education Cloud Platform on learning, exchange, outcome-sharing and service provision for agricultural and rural authorities at all levels, agricultural experts, technology extension workers, and farmers.

**Outcomes:**
The past 5 years has witnessed bountiful outcomes for the cultivation of new-type professional farmers. By 2018, 2 million users have registered on the platform, 263,000 experts and technicians and 1.57 million farmers, mainly professional farmers log in. 4,639 new-type professional farmer courses and agricultural technology videos have been posted online. The platform has answered 2 million questions from farmers, and published 3.175 million service logbooks and 209,000 pieces of agri-production information. Thanks to the Program, professional farmers with innovation capacity, entrepreneurship, new perceptions, and advanced skills are flourishing. They have become the successors for sustainable agricultural development.

**Future Directions:**
China will continue to institutionalize the cultivation of new-type professional farmers and nurture new-type professional farmers through human resource development, training, policy support and social security.
SUSTAINABLE AGRICULTURAL DEVELOPMENT THROUGH ICT APPLICATION

CASE SUMMARY
China has carried out the rural information service program, made constant efforts to build an operational system for remote sensing monitoring of agricultural conditions, conducted skill trainings on mobile app among farmers and continuously facilitated ICT application in agriculture and rural areas, thus offering convenient, economical and efficient agriculture information service to farmers and new agribusiness entities. By the end of 2018, 272,000 information stations have been established nationwide, which have provided farmers and new agribusiness entities with public service for 95.79 million person times and convenience service for 314 million person times, with online trade volume reaching RMB 24.4 billion and a total of 2.35 million users registered in the “Agriculture Information Service” mobile app.

KEY POINTS

Background:
Accelerating the application of ICT in agriculture and rural areas and promoting the introduction of ICT to villages and households is the trend of future ICT development and plays a critical role in solving the “last kilometer” problem of agriculture and rural information service. Rapid acquisition and analysis of crop information is the prerequisite and foundation of conducting precision agriculture, and the key to break through the bottleneck restricting the development of modern agricultural applications. Strengthening ICT application training and skill training on mobile app for farmers will help make smartphones a “new farming tool” and effectively improve farmers’ ability to apply ICT in agriculture.

Competent Authority:
The Ministry of Agriculture and Rural Affairs (MARA) of the People’s Republic of China; the Chinese Academy of Agricultural Sciences (CAAS)

Measures:
1. Carrying out the rural information service program. Since 2014, MARA has launched a pilot project of introducing ICT to villages and households through the combination of modern information technology and agriculture information service and explored a market-oriented sustainable operation mechanism with the construction of village-level information service stations as a main focus, hence providing convenient, economical and efficient industrial and livelihoods information service for farmers and new agribusiness entities. Since 2017, full-scale implementation of the rural information service program has been rolled out across China and 10 provinces/municipalities have been selected to carry out pilot demonstration.

2. Making continuous efforts to build an operational system for remote sensing monitoring of agricultural conditions. Since 1998, MARA, CAAS and other institutions have begun to establish a national remote sensing monitoring system for agricultural conditions in response to the challenges of complex terrain and fragmented cultivated land in China. The system adopts a mode of close integration between production and research, and keeps innovating agricultural remote sensing technologies and transforms these deliverables in a rapid manner so as to meet the needs of agricultural production and monitoring.

3. Promoting skill trainings on mobile app among farmers. Having seized the favorable opportunity of rapid expansion of mobile terminals including smartphones to rural areas, MARA has rolled out nationwide skill trainings on mobile app among farmers since 2015. Meanwhile, through developing an online training platform, MARA has successively compiled training materials such as “Ten Tips to Help Farmers Use Smartphones”, “Farmers’ Handbook for Marketing through Smartphones” and “Skill Training on Mobile App for Farmers”, held the Skill Training Week on Mobile App and organized activities such as “National Farmers Contest on Smartphone Application” and “Farmers’ Mobile Apps Sharing”, which are quite popular among farmers. Such combination of online and offline activities makes learning through smartphones an easy and pleasant experience for farmers and can help improve their ability to search information, conduct online marketing, obtain service and bring convenience to life. In this way, mobile phones can truly become a useful tool for farmers to boost production, bring convenience to life and increase income.

Outcomes:
1. The rural information service program has been well-received by rural residents. By the end of 2018, 272,000 information stations have been established nationwide, providing farmers and new agribusiness entities with public service for 95.79 million person times and convenience service for 314 million person times, with online trade volume totaling 24.4 billion RMB.

2. The national system for remote sensing monitoring of agricultural conditions has been widely used in various aspects of agricultural production. The system went into operation and was incorporated into the MARA’s information release system of agricultural conditions in 2002. The system was also applied to the dynamic monitoring and analysis of the national agricultural production in 2007 and included in the Monthly Report of Important Data of Agricultural and Rural Economy in 2010.

3. Smartphones have gradually become a “new farm tool” for farmers. In 2018, 3.6 million visits were made to the official platform of skill training on mobile app for farmers (website and APP), 2 million registered users of “Smart Farmers over the Cloud” app, 350,000 times of installation of “Mobile Training” app and over 10 million farmers having received skill training on smartphones.

Future Directions:
1. Strengthen the institutional building of the introduction of ICT to villages and households, further explore a market-oriented operation mode that is guided by the government and run by market players, train a number of enterprises that can render comprehensive information services and a number of ICT application entities capable of serving and managing to promote targeted poverty alleviation and sustainable agricultural development.

2. Constantly expand the monitoring scope and indicators of the national system for remote sensing monitoring of agricultural conditions, and improve monitoring accuracy and efficiency.

3. Continuously optimize the skill training platform on smartphones for farmers, enrich training resources, fully mobilize the enthusiasm of market entities, constantly innovate training content and methods, expand training participants, and make smartphones truly a “new farm tool” for farmers.
“THREE SYSTEMS” CAN BOOST HIGH-QUALITY DEVELOPMENT OF SPECIALIZED FARMERS’ COOPERATIVES

**SUMMARY**
Farmers’ cooperatives are an important organizational form and future direction for advancing the development of modern agriculture, which will help farmers to adapt to market economy and scale economy. China has attached great importance to the development of farmers’ cooperatives and effectively promoted an overall and high-quality development of farmers’ cooperatives by building “three systems”, which consists of laws and regulations, guidance services and supportive policies.

**CASES**

**Background:**
By the end of 2018, 2.173 million specialized farmers’ cooperatives have been registered in China, and more than 10,000 cooperative federations have been established. The number of rural households participating in the cooperatives accounted for about half of the total number of rural households in the country. Farmers’ cooperatives not only produce agro-products, covering grain, cotton, oilseed, meat, egg, milk, fruit, vegetable, tea, etc, but also engage in agricultural machinery, plant protection, folk handicrafts, agro-tourism and so on. In addition to professional cooperation, there are also various forms and operations such as joint-stock cooperation, credit cooperation and reunion of cooperatives. Farmers’ cooperatives have grown up into a new important type of agribusiness in China and become the backbone of building modern agriculture.

**Organization in charge:**
Ministry of Agriculture and Rural Affairs of the People’s Republic of China.

**Measures:**
Firstly, gradually improve the law system for farmers’ cooperatives. According to the relevant regulations of the Law on Specialized Farmers’ Cooperatives, China has formulated the rules on registration management and demonstration charters for specialized farmers’ cooperatives, etc. 19 provinces have also released local laws and regulations. A law system with the Specialized Farmers’ Cooperatives as the core, the local laws and regulations as supportive ones and rules and regulations as supplement, is gradually taking shape.

Secondly, initial establishment of the multi-tier guidance and service system. In July 2013, with the approval by the State Council of China, the mechanism for the Inter-Ministerial Joint Meeting on Farmers’ cooperatives Development was put in place, which included the Ministry of Agriculture and Rural Affairs, the National Development and Reform Commission, the Ministry of Finance and others. This move was followed by the mechanism of the provincial-level joint meeting in most provinces and subsequent formation of counselors’ teams at provincial, prefecture and county levels. Under this mechanism, partnership and assistance activities including “one thousand officials assuming responsibility for assisting in ten thousands farmers’ cooperatives” and “one designated expert mentoring one farmers’ cooperative” were launched in order to provide comprehensive assistance in farmers’ cooperatives’ development.

Thirdly, increasingly improvement of the system for supporting policies.
In May 2017, China released the Opinions on Accelerating the Establishment of Policy System to Nurture New-type of Agribusiness Players. With the view of helping farmers’ cooperatives, the policy supporting system in the following six aspects, including finance, taxation, infrastructure development, financial credit, insurance, marketing and capacity building has been further built up.

**Achievements:**
First, farmers’ cooperatives act as a carrier for better helping small farm holders. Small farm holders take more than 80% of the members of farmers’ cooperatives. Farmers’ cooperatives provide unified services to small farm holders in the supply of agricultural inputs, mechanized operation in agriculture, technical information, production and processing, transportation and sales and other areas. This has boosted scale, standardized and intensive agricultural production and operation, all of which has guided small farm holders to better adapt to modern agriculture.

Second, farmers’ cooperatives act as an important platform to stimulate the efficient performance of resource elements in rural areas. By integrating land, idle farmhouses, capital, technology and other resource elements, farmers’ cooperatives have attracted university graduates, people who have returned to rural communities, and industrial and commercial capital to create synergy for rural development, thus injecting vitality into rural revitalization, agribusiness startup and innovation. At present, up to 33,000 farmers’ cooperatives have set up processing enterprises and other economic entities, and 16,000 farmers’ cooperatives have been running e-commerce business.

Third, farmers’ cooperatives represent a major driving force for the growth in employment and income. In 2017, the farmers’ cooperatives in China distributed 1644 yuan RMB on average back to their members. Among national-level farmer’s cooperatives, about 10% model cooperatives are located in state-level poverty-stricken counties and their roles have promoted poverty reduction for 228,000 members.

**Future Directions:**
Targeting at meeting farmer’s needs, the farmers’ cooperatives will focus on standard-based development to boost high-quality growth by improved policy system, better demonstration and guidance, as well as improved management and strengthened service guidance.

The members of Yinongyuan Eco-agriculture Farmers’ Specialized Cooperative are happy with receiving their annual bonus.