

# The Agricultural Modernization Road with Jiangxi Characteristics in the New Era

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**Abstract:** In May 2019, General Secretary Xi Jinping pointed out during the inspection in Jiangxi: "We must promote the modernization of agriculture and rural areas, consolidate the foundation of grain production, adhere to the quality of agriculture, green agriculture, and continuously improve the comprehensive benefits and competitiveness of agriculture. To build a new urban-rural relationship, Establish and improve the institutional mechanism and policy system for urban and rural integration development, and promote coordinated development and integration of urban and rural areas." This points the way for Jiangxi to promote agricultural modernization. In the new era, Jiangxi must take the road of modern agriculture with Jiangxi characteristics to take the lead in realizing agricultural modernization. This paper believes that we must adhere to openness to the outside world, cultivate diversified subjects, promote moderate scale, build service integration, and focus on subsidy precision. In the six aspects of achieving scientific and technological autonomy, we will vigorously promote the agricultural modernization of Jiangxi and consolidate the road of agricultural modernization in Jiangxi.

**Keywords:** New Era, Jiangxi Characteristics, Agricultural Modernization, Choice

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## 1. Introduction

From the development strategy of the "four modernizations" [1] proposed by the party's 18th National Congress in 2012 to the green reform of the "five-chemical synergy" [2] proposed by the Party Central Committee in 2016, China is making strides on the road of fully realizing national modernization. However, in the process of realizing national modernization, agricultural modernization is the weakest link and the most important link. Without agricultural modernization, no rural prosperity and prosperity, and no peasants living and working in peace, national modernization is incomplete, incomplete and unsound. Therefore, in the process of comprehensively promoting high-quality leap-forward development, agriculture cannot be ignored, farmers cannot be forgotten, and rural areas cannot be indifferent.

Jiangxi is very ecologically beautiful, with fresh air, pure water quality and lush vegetation. The province's forest

coverage rate is stable at 63.1%, ranking second in the country [3]. These innate advantages have laid a solid foundation for Jiangxi to achieve agricultural and rural modernization. At the same time, Jiangxi is an important grain producing area of China. Accelerating Jiangxi's agricultural modernization is of great significance for safeguarding national food security and promoting the country's agricultural modernization.

Into the new era, Jiangxi's agricultural development has embarked on a new journey, which requires all levels of government in Jiangxi Province to firmly establish the five development concepts of "innovation, coordination, green, openness, and sharing" [4]. Focusing on the goal of "stabilizing food production, ensuring the supply of agricultural products, and improving labor productivity", with the focus on improving quality and efficiency and competitiveness, we will comprehensively promote the overall upgrading of the agricultural industry and complete the historical task of realizing agricultural modernization.

## 2. Leading the Agricultural Modernization of Jiangxi with a More Open Attitude

Only openness can be sustainable, permanent and modernized. Opening up is the trend of the times and the vitality of the reform and development of agricultural and rural areas.

*Table 1. Ranking of major agricultural products in China.*

Agricultural products	Agricultural products						
	Grain yield	Rice yield	Citrus yield	Gannan Navel Orange yield	Aquatic product yield	Number of live pigs for Shanghai	Number of leafy vegetables for Hong Kong
ranking	12	3	5	1	9	1	1

Second, Jiangxi has a good industrial advantage. The characteristics of Jiangxi's agricultural industry are distinct, and a new pattern of modern agricultural development that reflects the ecology of the production area, green products, industrial integration, and efficient output has emerged. A large number of regional characteristic brands have emerged, such as Minnan Navel Orange, Nanfeng mandarin orange, Wuyuan green tea and Silke Fowl. At present, the province has established 3 state-level modern agricultural industrial parks and 233 provincial-level modern agricultural demonstration parks, accumulating 75 agricultural industrial clusters with an initial scale and 5,106 leading agricultural enterprises above designated size.

### 2.2. Drawing a Road Map for the Opening of Jiangxi's Agriculture

First, we must promote the "going out" of agricultural enterprises. At present, Jiangxi has made significant progress in "going out". For example, Jiangxi enterprises have successfully established the Jiangxi (Malaysia) Modern Agricultural Science and Technology Industrial Park, Georgia-Jiangxi Business Park, Ukrainian-Huaying Agricultural Cooperation Park, Ukrainian-Jiangxi Product Exhibition Center, and Belarus - Gongqing City Down Processing Zone, etc.

Second, we must introduce the high-quality agricultural resources. Actively address the existing problems of agricultural development in Jiangxi, strengthen exchanges and cooperation with developed agricultural regions, and pay more attention to the introduction of agricultural germplasm resources, advanced agricultural technology, agricultural fund projects, excellent germplasm resources and advanced equipment, etc. Improve the driving force of agricultural science and technology. To improve the level of agricultural cluster industry development. Let the countries along the "Belt and Road" know Jiangxi, recognize Jiangxi agriculture, and strive for more high-quality foreign projects to settle in Jiangxi.

### 2.1. Jiangxi Agriculture Has Open Self-confidence

First, Jiangxi has abundant resources. Jiangxi is a large agricultural province with abundant agricultural resources. The brand of "Ecological Poyang Lake and Green Agricultural Products" enjoys a high reputation [5], and has created a series of special agricultural products brands such as Gannan Navel Orange, Wannian Gongmi and Poyang Lake Hairy Crab. The ranking of major agricultural products in the country is generally high, see Table 1.

## 3. Promoting Jiangxi's Agricultural Modernization with Diversified Subjects

In recent years, more and more new agricultural management entities have emerged in Jiangxi, accelerating the process of agricultural modernization. In the future, Jiangxi will also take various measures to achieve diversified development of agricultural business entities and consolidate the foundation of agricultural modernization [6].

### 3.1. In Terms of Philosophy, Firmly Support the Diversification of Agricultural Business Entities and the "Industrial Capital to the Countryside"

Jiangxi Province must adhere to the "three favorable" standards, that is, whether it is conducive to improving agricultural competitiveness, whether it is conducive to attracting production factors to agriculture, and whether it is conducive to increasing farmers' income as a criterion. If an economic organization can achieve "three benefits", it must be introduced into the agricultural sector and given strong support.

### 3.2. In Terms of System, Insist Rural Land Belongs to the Collective and the Basic Status of Family Management

In practice, any business entity must adhere to the socialist land system with Chinese characteristics and the farmers' right to contract and operate the land. Only in this way can rural society be ensured to be stable, which is both an effective economic system and an effective Social governance system. We must persist and not shake.

### 3.3. In Terms of Policy, Focus on Building a Multi-level, Multi-field, Multi-format Agricultural Business Entity

At present, it is necessary to vigorously support the development of major professional households (new farmers), family farms, farmers' professional cooperatives, and leading

agricultural enterprises [7]. Give full play to the functions of large-scale professional (new farmers) agricultural production, especially commodity production; Give full play to the large scale of family farms, stable land transfer relationship, high degree of commercialization of agriculture, and strong professionalism; Give full play to farmers' cooperatives to respond effectively according to market demand, and effectively make up for the inadequacies in the ability of scattered farmers to operate; Give full play to the leading force of the leading enterprises in agricultural industrialization, the main force of internationalization and marketization. It is recommended that the provincial party committee and the provincial government strengthen the top-level design, relying on the strength of the state-owned enterprises in the province, and vigorously set up a group of strong agricultural leading enterprises to create a batch of agricultural agricultural aircraft carriers.

#### 4. Promoting Jiangxi's Agricultural Modernization with Moderate Scale

Moderate scale is an inevitable choice for Jiangxi Province to promote the road to agricultural modernization [8]. Need to solve two problems prominently: First, how to promote moderate scale? It needs to be resolved from the perspective of property rights, creative implementation of the "three powers split" policy; second, by what way to operate moderate scale? It requires an increase in the level of agricultural mechanization.

##### 4.1. To Implement the "Three Powers Separation" Policy

In recent years, under the guidance of the "three powers split" policy, the land transfer situation in Jiangxi Province has been improving. By 2016, the province has established 11 municipal-level rural land transfer service centers, 102 county-level rural land transfer service centers, and 1,454 township-level rural land transfer service centers, promoting rural land transfer area of 115.02 million mu, with a turnover rate of 36.2%.

The "three-power split" policy breaks through the restrictions of traditional rural communities. It not only affirms the market-based allocation of land management rights, but also greatly activates the land resource elements and provides institutional support for the agricultural modernization road [9]. Therefore, Jiangxi should boldly promote the substantive transformation of the "separation of the two powers" to the "separation of the three powers", strengthen the institutional rigidity of the "three powers separation", and continuously strengthen the ownership of the land on the basis of ensuring the stability of the contracting rights, and Appropriately mandated a moderate concentration of cultivated land management rights. At the same time, implement the most stringent farmland protection system and land-saving land use system, and take measures to prevent collective land transfer "non-agriculturalization" and damage basic farmland, and ensure the amount of cultivated land and basic farmland protection area. By 2020, the red line of 43.91 million mu of arable land will be strictly observed, and the newly-built construction will occupy the cultivated land; by 2030, the cultivated land resources will be fully cured and sustainably utilized.

##### 4.2. Accelerate the Improvement of Agricultural Mechanization

Agricultural mechanization is an important guarantee to ensure the smooth promotion of moderate scale operations. The terrain of Jiangxi is mainly mountainous and hilly. The mountain area accounts for 36% of the province's area, and the hilly area accounts for 42%. There are 69 mountainous and hilly counties. In order to promote moderate scale, we must always improve the level of agricultural mechanization. At present, Jiangxi agricultural machinery is still dominated by small machinery. After the environmental protection standards for agricultural diesel engines are upgraded, the growth rate of small agricultural machinery and irrigation and drainage machinery has slowed significantly since 2016 (see Table 2).

Table 2. Status of agricultural machinery in Jiangxi Province in 2013-2017.

index		Number of agricultural large and medium tractors (sets)	Number of combine harvesters (sets)	Number of small tractors (sets)	Number of agricultural irrigation and drainage engines (sets)
Total power of agricultural machinery (Ten thousand KW)					
2013	2014.13	10200	48300	289800	349700
2014	2118.39	14200	56600	307600	347500
2015	2260.82	19600	65600	332000	352400
2016	2201.62	27500	-	352100	356400
2017	2309.6	31900	-	361800	362400

In the face of new challenges, we must strengthen our determination to further improve the level of agricultural mechanization. We must continue to deepen reforms, streamline processes, cancel application procedures, and implement "self-purchasing machines" to further expand farmers' independent purchasing rights and bargaining power. Relying on the province's agricultural machinery "one-stop"

service hall covering all counties and cities, the overall efficiency of the work and the transparency of the policy are fully enhanced, and the enthusiasm of the people to purchase the machine is fully stimulated. At the same time, to improve the subsidy supporting policies, we must actively introduce "financial living water" for farmers to purchase machines, reduce the pressure on farmers to purchase funds, incite the

market of agricultural machinery to be replaced, and let new and high-quality agricultural machinery enter agricultural production applications as soon as possible to further improve effectiveness of agricultural mechanization.

## 5. Promoting Jiangxi's Agricultural Modernization with Social Integration Service

The integration of agricultural social services plays an important role in promoting the adjustment of agricultural and rural economic structure, improving the comprehensive agricultural production capacity, and increasing farmers' income.

### 5.1. Improve the Construction of Agricultural Infrastructure

The smooth implementation of agricultural socialization services is inseparable from the continuous opening of agricultural land, convenient transportation, and good irrigation systems [10]. It is necessary to increase investment, improve the construction of agricultural infrastructure, and realize the task of fully completing the construction of 28.25 million mu of high-standard farmland by 2020. Therefore, governments at all levels should continue to increase investment in land consolidation, high-standard farmland construction, and farmland water conservancy construction, and strive to strengthen the construction of agricultural machinery supporting facilities such as rural roads and agricultural airport sheds to ensure that agricultural machinery can be used for land and can be used for roads. Row energy irrigation. In addition, deepen the "Internet+agriculture" thinking model, increase the construction of smart agricultural infrastructure, make full use of the 5G network era, and promote the transformation of Jiangxi agriculture into intelligent agriculture.

### 5.2. Vigorously Develop the Main Body of Social Integration Services

Actively improve the comprehensive supporting service mechanism for the whole process of agricultural production. Give full play to the technology, equipment and information advantages of the service mains before the production, and negotiate with the farmers to firmly grasp the market demand, plan the development direction in advance, and determine the planting structure and planting varieties. Provide farmers with information on planting, seeds, markets, loans, etc., and carry out related agricultural machinery services to ensure that they are prepared for the rainy day. In the middle of production, the role of the public welfare main body of the service system entity is brought into play, with emphasis on the difficulties arising from agricultural production and management, such as cultivation techniques, cultivation techniques, and pest control technologies. In the post-production period, help farmers to contact sales

channels, build service platforms, information platforms between farmers and business entities, and solve problems such as transportation and processing of farmers.

### 5.3. Accelerate the Integration of the First, Second and Third Industries in Rural Areas

To realize the agricultural modernization of Jiangxi, we must accelerate the integration of rural one, two, and three productions, build a whole industrial chain of agriculture, and strive to achieve an agricultural production structure in which the industry increases production, farmers increase income, enterprises increase efficiency, and green ecology [11]. At present, the basic production of agriculture in Jiangxi is good, the secondary production needs to be strengthened, and the tertiary production is steadily advanced. To this end, we must expand the spatial pattern of the development of the agricultural industry, first of all, strive to be strong, one production, good second production, and live three production, and promote the expansion of agriculture from plane to space. Secondly, while ensuring the production and supply of basic agricultural products in Jiangxi Province, we will accelerate the development of non-production functions such as ecological environmental protection, sightseeing and tourism, health and wellness, and cultural heritage of agriculture, and promote the integration and development of rural tertiary production [12].

## 6. Invigorating Jiangxi's Agricultural Modernization with Accurate Subsidy

Agriculture is a weak industry, and subsidies for agriculture in the world are common methods. Since the beginning of the 21st century, Jiangxi Province has continuously increased its agricultural subsidy policy.

### 6.1. Adhere to the Principle of "Stock Focus on Fairness, Incremental Efficiency"

The research of the research group shows that the productive function of inclusive agricultural subsidies is weakening, the function of income subsidies is strengthening, and agricultural subsidies have not become a "booster" to promote farmers' active production of food, but it has become a maintenance of rural society. Stabilizer. Therefore, from the perspective of fairness, the current agricultural subsidies with inclusive benefits have enormous social benefits. Therefore, Jiangxi Province must adhere to the inclusive agricultural subsidy policy. At the same time, however, it is necessary to enhance the function of agricultural subsidies to promote production efficiency. Therefore, the overall direction is: stocks focus on fairness, incremental focus on efficiency.

### 6.2. Improve the Accuracy of Agricultural Subsidies

Jiangxi agricultural modernization must require the promotion of agriculture from the traditional small-scale

farmer's decentralized operation to moderate-scale operation. With the diversified development of business entities, it is also inevitable to improve the accuracy of agricultural subsidy objects. Therefore, it is recommended that the provincial government implement an accurate reform of agricultural subsidies in the next three years. The specific operation is: using modern information technology, according to whether to grow grain, whether to reach the scale, whether to choose good varieties to distinguish, to "who has a variety of food, who will give priority to support, who chooses good varieties, who will give priority to subsidize", let agriculture The subsidy funds are used efficiently and accurately.

### **6.3. Increase the Accuracy of the Scope of Agricultural Subsidies**

According to Jiangxi's comparative advantages, it is necessary to increase the subsidy and scale of industries with comparative advantages, and improve the quality of rice, Gannan navel orange, Nanfeng mandarin orange, organic vegetables, tea, Chinese herbal medicines, camellia, bamboo, flowers, seedlings, rapeseed The subsidies for the production of pigs, fisheries and agricultural products processing industries have increased the support for the policy of "five districts, one park and four platforms", especially to increase policy support for farmers in water, electricity and land.

## **7. Driving Agricultural Modernization in Jiangxi with Agricultural Core Technology**

To realize the key to agricultural modernization in Jiangxi, it is necessary to strengthen the autonomy of agricultural core science and technology, enhance the contribution rate of science and technology to agriculture, and build a sound agricultural science and technology innovation system.

### **7.1. Strengthening the Autonomy of Agricultural Core Technology**

Promoting the transformation of Jiangxi's agricultural provinces into a strong agricultural province, technology is the key. At present, the most important thing is to give priority support to the cultivation of new varieties as a central task, and to promote the selection of new varieties of agriculture to enhance the comprehensive competitiveness of agriculture. The first is to build an incentive mechanism to promote the protection of new plant varieties. Highlight the content and requirements of variety rights management in agricultural science and technology and economic management, strengthen the management of variety rights, and clarify the direction of intellectual property policy. Second, it is necessary to establish and improve relevant laws and regulations, legally protect the rights and interests of variety owners, fully mobilize the enthusiasm of breeders, and promote breeding innovation and sustainable

development. The third is to focus on supporting the development and innovation of the seed industry. It is necessary to break the traditional idea of "breeding for validation and breeding for reward", adhere to the focus on new varieties and breeding, and continuously innovate breeding resources and means to improve breeding.

### **7.2. Enhance the Contribution Rate of Science and Technology to Agricultural Modernization**

Since the implementation of the strategy of "scientific and technological development" in Jiangxi Province, Jiangxi's agricultural science and technology has made considerable progress and progress. First, in the 70 years since the founding of the People's Republic of China, the contribution rate of agricultural science and technology progress in Jiangxi has reached 59.02%, the comprehensive mechanization level of major crops has reached 72.8%, and the high-standard farmland has reached a total of 22.515 million mu, accounting for 48.6% of the cultivated land area of the province. The coverage of the main crops is stable. At around 96%. In the next five years, Jiangxi needs to increase the contribution rate of science and technology to agriculture, from 60% to more than 70%. Promote the agricultural modernization of Jiangxi from the traditional dependence on resources and manpower to the more relying on agricultural science and technology.

### **7.3. Improve the Modern Agricultural Science and Technology Innovation System**

We must resolutely deepen the reform of agricultural scientific research institutions at or above the municipal level, promote the reform of grassroots agricultural technology extension systems below the county level, optimize the allocation of agricultural science and technology funds and resources, establish and improve the incentive mechanism for agricultural science and technology innovation entities, and improve the extension and service system for scientific and technological achievements [13]. We are determined to reform the existing agricultural extension system, focus on efficiency and efficiency, make full use of market-based means, and use market operation mechanisms to accurately and quickly promote the latest agricultural technology to agricultural production.

## **8. Conclusions**

Agricultural modernization combines high-tech means and modern management methods with agricultural production to continuously improve the level of agricultural production [14]. Jiangxi has good climatic conditions and abundant resources, but agricultural production is backward and its development rate is slow. In the new era, Jiangxi can only achieve the coordinated development of economic, social and environmental benefits by adhering to the road of agricultural modernization development and vigorously developing modern agriculture with local characteristics, high value, high efficiency and ecology.

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