WEP Warwick Evans Publishing

International Journal of Social Sciences and Public Administration

ISSN: 3005-9836 (Print), ISSN: 3005-9585 (Online) | Volume 3, Number 2, Year 2024
DOI: https://doi.org/10.62051/ijsspa.v3n2.01
Journal homepage: https://wepub.org/index.php/IJSSPA/index

Study on the Path of Enabling High-quality Agricultural Development in Anhui Province with New Quality Productivity

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ABSTRACT

With the continuous progress of science, technology and society, new quality productivity is gradually becoming a strong support and internal driving force for high-quality development of agriculture, which is of great significance for transforming traditional agriculture and promoting agriculture to intelligent, low-carbon and modern transformation. With its "new" and "quality" as the fundamental, new quality productivity has the characteristics of high-tech, high efficiency, high quality, etc., and has a strong leading role in the all-round transformation of traditional agriculture. On the basis of reviewing the literature related to the new quality productivity and the agricultural development of Anhui province, this paper first put forward the author's interpretation of the connotation of new quality productivity, and then analyzed the conditions of Anhui province's transformation from a large agricultural province to a strong agricultural province. On this basis, it explored the path of enabling the high-quality agricultural development of Anhui province by new quality productivity. Finally, it is concluded that in order to achieve this goal, we must strictly implement the new development concept and promote the transformation of traditional agriculture to the direction of wisdom, ecology and industrialization.

KEYWORDS

New Quality Productivity; Transformation of Traditional Agriculture; High-quality Development.

1. INTRODUCTION

New quality productivity is an advanced quality of productivity created by technological breakthroughs, innovative allocation of production factors and deep industrial transformation. It takes the improvement of workers, labor materials, labor objects and their optimal combinations as its basic connotation. It is characterized by high technology, high efficiency and high quality, and has injected strong momentum into high-quality economic development.

Anhui Province is one of the main grain-producing provinces in China. Its annual crop planting area exceeds 130 million mu, ranking fourth in the country, and its total output ranks 4-5 in the country. It has played an important role in ensuring national food security. However, in recent years, the agricultural development of Anhui Province is also faced with some problems: shortage of outstanding agricultural talents, relatively weak rural infrastructure, insufficient impetus for agricultural scientific and technological innovation, and low economic benefits. These problems restrict the high-quality development of agriculture in Anhui province, hinder the transformation of Anhui province from a large agricultural province to a strong agricultural province, and are one of the problems to be solved urgently in Anhui province.

According to the characteristics and connotation of the new quality productivity, in order to solve the existing problems in Anhui's agriculture and realize the transformation into a strong agricultural

province, it is necessary to vigorously develop agricultural science and technology, accelerate the promotion of mature agricultural technology, train new agricultural talents, improve the knowledge and technical level of agricultural producers, so as to promote the formation and development of agricultural new quality productivity. To further empower the high quality development of agriculture in Anhui province.

2. LITERATURE REVIEW

At present, the academic circle has conducted in-depth research and discussion on the new quality productivity. Zhang Lin et al. [1] pointed out that the new quality productivity, namely the new quality productivity, refers to the ability to utilize and transform nature with high efficiency and high quality, which is spawned by strategic emerging industries and future industries under the transformation and integration of scientific and technological innovation resources. Zhou Wen et al. [2] explained the connotation of new quality productivity from the two aspects of "new" and "quality". They believed that the essence of quality productivity is innovation-driven, and the key to this innovation drive lies in the breakthrough of key technologies and disruptive technologies. According to the productivity analysis framework from the perspective of Marxist political economy, Gao Fan [3] proposed that the concept of new quality productivity has multiple dimensions of connotation, which is expressed in the aspects of result, factor, factor combination, industrial form and guarantee. Xu Zheng et al. [4] proposed that in order to enable high-quality development of the new quality productivity, efforts should be made from the reform of system and mechanism, the reinforcement of the shortcomings of strategic emerging industries, the digital transformation of traditional industries, and the cultivation of "talent dividend". Shi Jianxun et al. [5] believe that accelerating the formation of new quality productivity is conducive to promoting China's industrial transformation and upgrading, and comprehensively building a modern industrial system.

Agriculture is the foundation for building a country and strengthening it. The high-quality development of agriculture is an inevitable requirement for accelerating the modernization of China's agriculture and rural areas, and it is also the only way to accelerate the construction of an agricultural power. At present, the academic circle has also made a profound elaboration on the new quality productivity enabling the high-quality development of agriculture. Hou Guanyu et al. [6] elaborated the theoretical logic of new quality productivity enabling high-quality agricultural development in Northeast China from four aspects: productivity development, digital transformation, ecological model and added value enhancement. Lin Wanlong et al. [7] discussed the necessity and inevitability of leading the construction of China's agricultural power with new quality productivity from three dimensions of theoretical logic, time logic and realistic logic. Wei Houkai et al. [8] emphasized that the development of modern large-scale agriculture should be led by new quality productive forces, and it is necessary to speed up the construction of modern agricultural science and technology innovation system and modern large-scale agricultural industrial system, strengthen the construction of modern large-scale agricultural infrastructure and the construction of new agricultural talent team, and promote the adaptive reform of system and mechanism in coordination with it.

Based on the above research, the new quality productivity represents the development direction of advanced productivity, and emphasizes the subversive breakthrough of science and technology based on the new generation of science and technology such as cloud computing, Internet of Things, big data and artificial intelligence. Its "new" and "quality" are reflected in the coordination, unity and efficient allocation of the three elements of labor. As a new concept in the theoretical system of socialism with Chinese characteristics, new-quality productive forces embody the development thinking of advancing with The Times, and follow the concept of innovative, coordinated, green, open and shared development and the concept of people-centered development. Therefore, the study on the important role of the new quality productivity in the high-quality agricultural development of Anhui province from the aspects of connotation interpretation and path selection will help to put

forward exploratory thinking for the high-quality agricultural development of Anhui Province and deeply understand the key role of the new quality productivity in agricultural development.

3. INTERPRETATION OF THE CONCEPT OF NEW QUALITY PRODUCTIVITY

The most fundamental difference between the new quality productivity and the traditional productivity lies in its "new" and "quality". "New" means innovation and upgrading, while "quality" means quality improvement. Compared with traditional productivity, it pays more attention to innovation, especially the improvement of disruptive technological innovation, quality, efficiency, resource allocation efficiency and labor quality, which reflects a concept of system optimization. The new quality productivity is different from the traditional productivity in three aspects: technical content and innovation ability, production efficiency and cost, resource utilization and environmental protection.

In terms of technological content and innovation ability, the new quality productivity emphasizes more on the revolutionary and subversive breakthrough of technology, as well as the cross-integration of industries, and usually has a higher technological content and innovation ability. It represents the transformation and application of the latest scientific and technological achievements, the speed of technological update and iteration is fast, and it is more able to adapt to market changes.

In terms of production efficiency and cost, the development of traditional productivity is limited by technical bottlenecks and complex processes, while the new quality productivity breaks through the original technical bottlenecks and complex process restrictions by introducing new technologies, new models and new processes, promoting the manufacturing process to become intelligent and the manufacturing paradigm from scale production to scale customization[9]While improving the production efficiency, it also reduces the production cost and promotes the productivity to a new level.

In terms of resource utilization and environmental protection, new quality productivity pays more attention to resource conservation and efficient recycling, emphasizing green, low-carbon and sustainable development. It strives to achieve green and sustainable development, improve the efficiency of resource use through energy conservation and consumption reduction, circular economy and other means, and is committed to building an environmentally-friendly and resource-saving society.

To sum up, the new quality productivity is not completely divorced from the traditional productivity, but it is further upgraded and optimized on the basis of the traditional productivity, and we cannot talk about the new quality productivity separately from the traditional productivity. Fundamentally, the new quality productivity is based on the three elements of production -- laborers, means of labor and objects of labor. From the perspective of workers, the new quality productivity puts forward higher requirements for workers' knowledge and skills; From the perspective of labor data, labor data with higher technical content is the power source of new quality productivity. It is the integration and application of a new generation of information technology, advanced manufacturing technology and new material technology that gives birth to more efficient, greener and safer production tools, further liberates workers and provides material conditions for the development of new quality productivity. From the perspective of labor objects, new quality productivity puts forward more requirements on the types and forms of labor objects. With the continuous development of science and technology, human beings gradually expand from obtaining material and energy from the land to the deep sea, deep space and deep earth. As a new factor of production, data has become an important object of labor and is increasingly playing an important role in production and life.

To sum up, the new quality productivity is essentially based on the improvement of the quality of laborers, the improvement of labor means, the expansion and upgrading of labor objects, and the organic combination and coordination among the three. In turn, the new quality productivity can lead

the easy flow, systematic integration, collaborative development and efficient utilization of factors, so as to greatly improve the efficiency of resource allocation and total factor productivity, and enable high-quality economic development.

4. CONDITIONS OF HIGH QUALITY AGRICULTURAL DEVELOPMENT IN ANHUI PROVINCE

4.1. Resource Condition

Anhui is located in the hinterland of East China. It is located in the Yangtze River basin and the Huaihe River basin. It has abundant arable land and water resources. It is suitable for the development of crops and aquaculture.

4.2. Agricultural Science and Technology

Strengthening innovation in agricultural science and technology, accelerating the transformation of agricultural scientific and technological achievements, and promoting agricultural science and technology are key measures to develop modern large-scale agriculture and help implement the strategy of rural revitalization. In recent years, Anhui Province has paid attention to the innovation and transformation of agricultural science and technology and the application of information technology in agricultural production, which has improved the efficiency and quality of agricultural production to a certain extent, and has a certain strength in agricultural science and technology innovation. Through the implementation of the livelihood training project for new professional farmers[10]it has cultivated a team of high-quality farmers who understand agriculture, science and technology, and the market.

4.3. New Progress Was Made in Rural Development

In terms of village appearance, great efforts were made to improve the rural living environment, which greatly improved the living environment of farmers and raised people's satisfaction with their living conditions. In terms of the land contracting system, Anhui Province has further promoted the reform of "three rights separation" of contracted rural land, and completed the construction of an information management platform for contracted land management rights. At the land property rights system level, the pilot task of the reform of the rural collective property rights system in the whole province has been completed. We eliminated the institutional mechanisms that hindered agricultural development, and provided institutional and policy conditions that facilitated agricultural development.

4.4. Shortcomings

First, Anhui is located in the south-north climate transition zone, floods, droughts, low temperature and freezing damage and other natural disasters occur from time to time, which will have adverse effects on crop reduction and low survival rate; Second, although the trend of population return in Anhui has strengthened in recent years, the status quo of Anhui as a province with large population outflow has not changed. The people who stay in rural areas are basically the old and children, and the young and middle-aged labor force is small. Third, although there are many colleges and universities in Anhui Province, most of the talents trained in Anhui province have flowed out, and they have not returned to their hometown for development, so there is a shortage of agricultural talents. Fourthly, although Anhui Province has made some achievements in the level of agricultural science and technology innovation, it still stays at a relatively basic level, and the promotion and application of agricultural science and technology is not in place; Fifth, the agricultural development infrastructure construction is weak, can not support large-scale, professional modern production.

5. THE PATH OF ENABLING HIGH-QUALITY AGRICULTURAL DEVELOPMENT IN ANHUI PROVINCE BY NEW QUALITY PRODUCTIVITY

Through the above analysis, it can be concluded that in order to realize the high quality development of agriculture in Anhui province and build a strong agricultural province, developing agricultural new quality productivity is the fundamental way. The new quality productivity to enable the high-quality development of agriculture needs to be made from the following aspects:

5.1. Vigorously Develop Agricultural Science and Technology and Raise the Level of Modernization of Agricultural Development

In recent years, science and technology have become an important driving force for economic growth in agriculture and rural areas. Therefore, it is necessary to vigorously develop agricultural science and technology, accelerate the construction of agricultural science and technology innovation system, and create conditions for continued basic and cutting-edge research. Starting from the problem itself, we should strengthen scientific and technological support for agricultural development, and establish an agricultural disaster monitoring and early warning system by using new generation technologies such as remote sensing satellite technology, network communication technology, cloud computing technology and artificial intelligence technology, so as to better quantitatively assess crop diseases and pests, drought and flood disasters in farmland, and help farmers minimize losses. This system can also realize the functions of crop monitoring, disaster early warning and yield pre-production by setting indicators such as seedling situation, growth, seedling emergence rate and soil nutrient content, reduce the burden on farmers, improve agricultural production efficiency, achieve greater output, and promote intelligent and modern agricultural production.

5.2. We Will Strengthen Agricultural Infrastructure and Increase the Resilience of Agricultural Development

The construction of agricultural infrastructure is the cornerstone of high-quality agricultural development and can ensure the resilience of agricultural development. On the one hand, the effect of agricultural infrastructure on agricultural economic growth is realized through technical effect, scale effect, reducing agricultural production cost, improving agricultural output and promoting the upgrading of agricultural industrial structure[11]On the other hand, agricultural infrastructure is an important factor affecting agricultural intensification and can effectively improve agricultural technical efficiency[12]. Therefore, promoting the high-quality development of agriculture and strengthening the construction of agricultural infrastructure is an essential step. First of all, we must improve the buildings and equipment including roads, water conservancy, electricity and communication, improve the existing material conditions of farmland, and promote the formation of a perfect road network, water conservancy network, power network and communication network. Only by laying these foundations, some high-tech agricultural machinery and equipment, agricultural testing system can be put into use; Secondly, it is necessary to introduce and promote agricultural machinery facilities according to local conditions, including multi-functional farming and planting machinery composed of power chassis and various working parts, micro-drip irrigation equipment, carbon dioxide gas fertilizer application equipment, temperature and humidity control equipment, light equipment and harvesting machinery. Strengthening the construction of agricultural infrastructure is conducive to enhancing the tenacity and adaptability of agricultural development, and laying the material foundation for the high-quality development of agriculture.

5.3. We Will Focus on Training a New Type of Agricultural Personnel to Inject Vitality into High-quality Agricultural Development

People are the most active and decisive factor in the productive forces, and the development of new quality productive forces has put forward higher requirements for people's knowledge and skill level. In order to meet the requirements of high quality agricultural development for laborers, we need to start from two aspects. On the one hand, it is necessary to strengthen and train a team of strategic talents capable of creating new quality agricultural productivity, who can lead the world's agricultural science and technology frontier and innovate and create new production tools, including top agricultural scientific talents who have made qualitative breakthroughs in subversive scientific understanding and technological creation, and first-class researchers who have made outstanding contributions in key fields such as seed research. Their presence undoubtedly injects strong vitality into the high-quality development of agriculture. On the other hand, at present, the main body engaged in agricultural production is still farmers, who rely more on experience, conservative ideas, and not enough to accept new things. In order to make agriculture intelligent and modern, we cannot do without their support. Therefore, activities such as lectures on agricultural science knowledge, training of agricultural skills and publicity of successful cases of application of agricultural science and technology can alleviate farmers' doubts about new technologies and increase their trust in new agricultural technologies. At the same time, the government should encourage and support scientific research institutes and colleges and universities to carry out agricultural science and technology talents "to the countryside" activities, vigorously promote the "science and technology academy" and "expert studio" and other models, and promote agricultural science and technology services to the front line of agricultural production[13].

5.4. Adapt to Local Conditions and Promote the Green Transformation of Agricultural Production Methods

High-quality economic development not only means rapid economic growth, but also means organic integration and coordination with nature. We want both gold and silver mountains and green mountains. Only by following the laws of nature and adapting to local conditions can we achieve sustainable development. To promote the green transformation of agricultural production methods requires multi-faceted efforts. In terms of technological innovation and application, increase investment in research and development of green agricultural technologies, such as biological control, water-saving irrigation, and application of organic fertilizers, so as to reduce the use of fertilizers and pesticides. To reduce environmental pollution and improve soil quality and crop yield through technological innovation. At the level of optimizing resource allocation, promote the resource utilization of agricultural waste, such as straw, livestock manure and other agricultural waste through scientific treatment into organic fertilizer or bioenergy, so as to achieve ecological cycle and sustainable development. In terms of policy support, formulate and improve relevant laws and regulations to support the development of green agriculture, such as environmental protection laws and regulations, green product certification system, etc., to ensure that the green transformation is effectively guaranteed by law. At the same time, implement preferential fiscal and tax policies, and give tax relief or subsidy support to farmers or enterprises that adopt green production methods. Encourage more agricultural producers to participate in the green development of agriculture.

6. CONCLUSION

This paper put forward the author's interpretation of the connotation of new quality productivity, and then analyzed the conditions of Anhui province's transformation from a large agricultural province to a strong agricultural province, and explored the path of enabling the high-quality agricultural development of Anhui province by new quality productivity. In order to achieve this goal, we must

strictly implement the new development concept and promote the transformation of traditional agriculture to the direction of wisdom, ecology and industrialization.

ACKNOWLEDGMENTS

This work is supported by Undergraduate Research and Innovation Fund Project of Anhui University of Finance and Economics in 2024 (Grant No: XSKY24072).

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