

A Research on the Impact of Green Financial Policies on Green Development of Agriculture

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Abstract: Green and sustainable development has emerged as the central concern of economic transformation in nations all over the world due to the acceleration of global climate change and the growing importance of environmental degradation. Governments and businesses throughout the world have progressively come to recognize green finance as a crucial financial instrument for fostering sustainable development and green economic transformation. The purpose of this essay is to investigate the various ways that green financial policies affect agriculture's green development. This paper explains the meaning and framework of green financial policies, examines how to provide funds and financing channels for the green development of agriculture, encourages technological innovation and the transformation of production models, and enhances resource allocation and industrial chain construction through a variety of methods, including case analysis and literature research. According to the study, green financial policies—such as providing financial support, encouraging technological innovation, and encouraging the transformation of production models—play a significant role in advancing the sustainable development of agriculture. However, more work needs to be done in the future to ensure both high-quality and green sustainable development of agriculture.

Keywords: Green Finance Policy, Agricultural Green Development, Capital Support, Technological Innovation, Industrial Structure Adjustment.

1. Introduction

As global environmental issues become increasingly prominent, people's concept of sustainable development is gradually deepening. If China's new economic growth is to achieve green, low-carbon and sustainable development, it is necessary to build and improve the green financial system [1]. The change of the agricultural development model is essential to attaining sustainable development of a contemporary economic society, as agriculture is the main and foundational industry of the national economy. Traditional agricultural development often uses single-species planting and a large amount of chemical fertilizers, which has a certain negative impact on the ecological environment and species diversity. A new style of agriculture that preserves resource sustainability and safeguards the natural environment is replacing traditional agriculture. As a key economic tool for sustainable development, green finance encourages the economy's green transformation and high-quality development by directing capital into green initiatives including clean energy, energy conservation, and environmental preservation. In China, the government has issued a number of rules pertaining to green finance and gives the growth of green sectors substantial financial assistance. The government also pays special

attention to and places a high value on the development of green finance. The study of how green finance regulations affect the growth of this sector is very valuable since it is one of the sectors that green finance covers the earliest and has the most influence on.

The effect of green finance policies on agriculture's green development is the main topic of this essay. First, it defines green finance and provides a summary of green finance policy [2], describes the features of green finance, makes clear the structure of green finance policies, and examines the connection between green finance and agricultural development [3]. Second, the fund investigates ways to create financial circumstances for and encourage the green development of agriculture through the particular tools of green finance, such as green bonds and green credit [4]. Thirdly, it examines how green financing policies affect agricultural growth, particularly as it relates to encouraging the development of green agricultural technologies and the evolution of green agricultural production models. Lastly, at the macro level, it investigates how green finance policies support the growth of the agricultural green industrial chain and maximize the distribution of agricultural resources.

This paper uses a combination of literature research and case analysis to analyze the impact of green finance policies on the green development of agriculture. By reviewing relevant domestic and foreign literature, it summarizes the theoretical development of green finance policies and related practical results, providing a scientific theoretical basis for the research viewpoints of this article. It also analyzes the practical cases of regional agricultural green development supported by green finance policies, summarizes their experiences and results, and provides valuable experience and theoretical basis for the future development of green finance and green agriculture.

2. Overview of Green Finance Policy

2.1. Definition and Characteristics of Green Finance

Green finance, also known as sustainable finance, refers to the financial sector taking environmental protection and sustainable use of resources as important investment objectives, guiding capital inflows to economic activities that efficiently improve the environment and climate and efficiently use resources, so as to guide enterprises to focus on green and environmental protection in production, guide consumers to form green consumption concepts, and form balanced and coordinated development of the economy, society, and environment.

Compared with traditional finance, green finance is more inclined to environmentally friendly projects. Its core purpose is to support environmental protection and sustainable development. Its targets are enterprises and projects that help reduce pollution emissions, improve resource utilization efficiency and protect ecological balance. Green finance not only has the characteristics of traditional finance that focuses on economic interests, but also tends to achieve the unity of social needs and economic benefits. It supports the sustainable development of society by emphasizing the social responsibility of financial institutions. Green finance mainly comes from the support and guidance of government policies. Through fiscal subsidies and the formulation of relevant laws and regulations, it encourages financial institutions to participate in green financial business and promote sustainable economic development.

2.2. China's Green Finance Policy Framework

The Chinese government has given the rise of green finance a lot of attention in the past 10 years, and a very extensive legislative framework has been developed. The People's Bank of China, the Ministry of Finance, and seven other national financial ministries published "Guiding Opinions on Building a Green Financial System" on August 31, 2016. This gave policymakers guidance and support for the expansion of green financing. After 10 years of growth, the People's Bank of China

and four other ministries published their "Opinions on Giving Full Play to the Role of Green Finance in Serving the Construction of a Beautiful China" on October 24, 2024. The two guiding opinions set the fundamental foundation for China's green finance policy and offered suggestions for how the sector could develop [5], developed new green financing models, supported the restoration of ecological protection, encouraged the green and low-carbon growth of diverse industries, and completely implemented the sustainable development pattern and high-quality development plan. In order to promote green finance in all its facets and with various objectives, the policy guidelines and blueprint planning were implemented.

2.3. The Relationship Between Green Finance and Green Agricultural Development

Green finance and green agricultural development are inextricably linked. First, green finance can provide the necessary financial support for green agricultural development. The funding demand for green agricultural development, such as agricultural technology innovation and production mode transformation, is huge [6]. Green finance raises funds through green bonds and other means and guides them into the fields of agricultural technology innovation and production transformation. Sufficient funds can meet the needs of green agricultural development. Secondly, as people's requirements for the quality of agricultural products and their attention to the ecological environment increase year by year, the market potential for green agricultural development is huge. While financial institutions support green agricultural development, the corresponding returns can also support their own sustainable development, achieving a win-win situation of improving the ecological environment and maintaining the sound operation of financial institutions.

3. Green Finance Policies Provide Funding and Financing Channels for Agriculture

3.1. Green Credit

Green credit is one of the important ways for green finance to support the green development of agriculture. In credit activities, financial institutions take environmental protection standards, pollution control levels and effectiveness of ecological environment protection as important prerequisites for credit approval, and provide credit support for projects that meet green standards according to national environmental protection policies and industrial policies. The Hunan Branch of the Agricultural Development Bank of China has innovated the green credit model and issued a green loan of 210 million yuan to support the modern comprehensive development of local forestry in Yuanling County and the construction of the first phase of the national reserve forest project. The project makes full use of forestry resources, increases timber reserves through intensive management, drives the development of the forest economy, and provides more sources of income and employment opportunities for local farmers. At the same time, the increase in forest area is also of positive significance to the realization of carbon sink functions and the improvement of the local ecological environment, achieving a win-win situation in economic and social benefits.

3.2. Green Bonds and Green Funds

One way to raise money to promote the development of green initiatives is through green bonds and funds. Rapid growth in the green bond market in recent years has created a new avenue for funding agricultural green projects. Agricultural enterprises can raise funds for projects such as agricultural green production and ecological agriculture construction by issuing green bonds. Green funds are mainly established by the government, relevant financial institutions and enterprises, and are specifically used for investment in sustainable development projects. At the level of agricultural green technology innovation, funds are introduced to support the research and development of related

technologies. Green funds have the advantage of flexibility and can adopt equity investment and bond investment to provide all-round financial support for the green development of agriculture.

4. Green Finance Policies Promote Agricultural Technology Innovation and Production Model Transformation

4.1. Promote the Research and Development of Green Agricultural Technologies

In terms of agricultural technology innovation and production model transformation, green finance policies have effectively promoted the research and development of green technologies by providing policy guarantees and financial support. Financial institutions support the green technology research and development projects of agricultural research institutions and enterprises, reducing the cost and risk of research and development. Green finance policies can also encourage universities, research institutions and agricultural science academies to carry out technological innovation research cooperation and jointly develop agricultural green technology problems by setting up special research funds.

4.2. Promote the Transformation of Green Agricultural Production Model

Green finance policies promote agricultural enterprises and farmers to adopt green production models to replace traditional agricultural production. Specifically, financial institutions provide financial support to enterprises and individual farmers who adopt green production models. Lower loan interest rates can promote agricultural production entities to use more advanced production models. In terms of irrigation, corresponding equipment can be purchased to adopt drip irrigation technology, which can reduce the use of water resources while increasing production efficiency. In terms of fertilization, quantify fertilization standards, adopt more scientific fertilization technology, achieve precise fertilization, increase crop yields, and reduce land pollution. This will enable agricultural enterprises and farmers to actively transform to green production models driven by economic interests.

Green finance policies can also promote the popularization of green agricultural production models by supporting the construction of an agricultural green certification system. The government provides more favorable policies for agricultural products that have obtained green certification, and financial institutions give higher valuations to certified products, which encourages agricultural enterprises and farmers to produce in accordance with the production standards required by the policy. While improving the market competitiveness of agricultural products [7], the green agricultural production model is rapidly transforming under the promotion of green finance policies .

5. Green Finance Policies Improve Agricultural Resource Allocation and Promote the Construction of Agricultural Industry Chain

5.1. Optimizing Agricultural Resource Allocation

The green finance standards specified in the "Guiding Opinions on Building a Green Financial System" issued by the People's Bank of China and seven other government departments [8], and prioritize the investment of funds in agricultural projects with high resource utilization efficiency and environmental friendliness, so as to promote the concentration of agricultural resources in green and efficient fields. In terms of land resource utilization, in order to encourage farmers and enterprises engaged in ecological agriculture and vertical agriculture projects to rationally plan land and improve land utilization efficiency, financial institutions can provide more financial support. Driven by relevant interests, farmers and enterprises will shift to high-quality agricultural development, thereby achieving sustainable development. This move optimizes the allocation of agricultural resources and

creates more economic benefits. Green financial policies optimize the allocation of agricultural resources by guiding the flow of funds [9].

Agricultural labor resources are important resources owned by agriculture, a basic industry. Green financial policies can focus on talents who master green agricultural technology and management knowledge, provide policy support and scientific research funds for high-tech talents, and help the innovative development of new agricultural technologies. With the advancement of green agricultural development, the demand for agricultural labor resources is also increasing. Government departments and financial institutions should provide financial and equipment support for agricultural green talent training projects, encourage colleges and vocational colleges to open relevant majors, and cultivate more talents adapted to the green development of agriculture. After these talents enter the agricultural field, they can better promote the green development of agriculture and further optimize the allocation of agricultural labor resources.

5.2. Promote the Construction and Improvement of the Green Agricultural Industry Chain

The agricultural green industry chain is constructed and improved with the support of green financial policies. In the upstream of the industry chain, the research and development and production enterprises of agricultural green production products provide high-quality inputs for the development of enterprises in fertilizers, pesticides and other aspects for agricultural green production. In the midstream of the industry chain, financial support is provided to agricultural planting and breeding enterprises that adopt green production technology to ensure the green production of agricultural products. In the downstream of the industry chain, support is provided to agricultural product processing and sales enterprises to carry out green marketing, create green agricultural product brands, and increase the added value of agricultural products.

Taking the tea industry as an example, green finance policies can support local biofertilizer companies to develop and produce organic fertilizers that are more suitable for tea tree growth, providing high-quality nutritional guarantees for tea planting. At the same time, tea growers who adopt green planting technology are given corresponding policies such as low interest rates for green credit to ensure the output of tea. Downstream, green bonds of financial institutions can provide financing for tea processing companies, help them purchase more advanced processing equipment, carry out green processing, and support companies in brand building and market promotion to enhance their competitiveness. With the support of green finance policies, a complete green tea industry chain has been built, which has improved the overall competitiveness of the tea industry and indirectly promoted the green development of agriculture. In order to accomplish agricultural resource sharing, green technology exchange, and coordinated development, as well as to further improve the agricultural green industry chain and increase the scale effect and synergy effect of agricultural green development, green finance policies can also support the construction of relevant agricultural industrial parks, which can further agglomerate and develop the agricultural green industry chain [4].

6. Conclusion

To sum up, there are numerous ways in which green finance policies contribute to the green development of agriculture. Regarding capital provision and financing, green credit, green bonds, and green funds further expand the financing channels for green agricultural firms by offering the cash flow assistance required for the green development of agriculture. In terms of agricultural technology innovation and production model transformation, green finance policies have encouraged the development of green agricultural technologies and, with proactive guidance, have made it possible for agricultural production entities to achieve a transformation in agricultural production methods and

adopt green production models. Green finance policies have also been beneficial in enhancing the distribution of agricultural resources and encouraging the development of agricultural industrial chains. This has further optimized the distribution of agricultural resources and encouraged the development of the agricultural green industrial chain.

In the ten years since green finance was proposed in 2016, there are still some minor problems with green finance policies in supporting the green development of agriculture. First, there is insufficient innovation in green finance products and services, which makes it difficult to meet the diversified needs of green agricultural development. Second, the risk assessment and management capabilities of some financial institutions for green agricultural development projects need to be improved. Third, the publicity and promotion of green finance policies are not strong enough, resulting in some agricultural enterprises and farmers not knowing enough about green finance policies.

To further fulfill the function of green financing and promote the expansion of green agricultural output, it may help the green development of agriculture by doing the following: First, foster more innovation in green financial products and services; second, enhance the way financial institutions evaluate and manage the risks of agricultural green development projects; third, establish a trustworthy risk warning system; and fourth, develop more financial products that are suitable for agricultural green development, such as green supply chain finance, agricultural green insurance, etc., which can provide financial guarantees for agricultural green development. Third, to increase awareness and advance green finance policies, hold policy seminars and publicity boards in rural areas. This will also help farmers and agricultural enterprises better understand and implement green financial regulations.

In a nutshell, green finance policies are the primary instrument for promoting the green growth of agriculture. By continuously enhancing the green finance policy system and supporting its implementation and oversight, it can better support the sustainable development of agriculture and realize the high-quality development strategy while achieving coordinated development of the economy, society, and ecology.

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