



# The Focus Point and Practice Path of Green Finance to Support Agricultural Development Zhangye City as an Example

Guofeng Zhao<sup>(✉)</sup>

Zhangye School of Administration, Zhangye, China  
zgfc11@naver.com

**Abstract.** Green finance is important for the development of agriculture. The government gives reasonable guidance and uses a market-based operation model to drive stakeholders to participate in the field of green finance to support agricultural development. To ensure the stability of the real agricultural economy, green finance can be used to diversify green development projects for the environmental, social and economic benefits of rural areas. This article analyzes the mechanism and realization of the role of green finance in supporting agricultural development, combines relevant theoretical knowledge to study the current context of agricultural development, and develops a practical path for green finance to support agricultural development in rural areas in response to the problems that exist.

**Keywords:** Green finance · Agricultural development · Focus point · Practice path

## 1 Introduction

After more than 40 years of development, China's reform and opening-up policy has brought about radical changes in the social and economic landscape of China, and the differences between rural areas and urban areas have become more significant, with the development of rural areas lagging behind significantly and problems such as ecological pollution, unreasonable industrial structure and brain drain in rural areas. In the report of the 19th National Congress, General Secretary Xi clearly put forward that the implementation of rural strategy is the most urgent task at present, and solving the three rural issues is the focus of the whole Party. The revitalization of the countryside needs to be promoted by multiple forces, among which the role of green finance is very obvious. The main purpose of green finance is to achieve green and sustainable development in rural areas. Therefore, the state actively guides and supports green finance to bring important guarantee for the realization of green development in rural areas. Comprehensive above, if the economy of rural areas wants to obtain transformation and development, it must be carried out gradually under the leadership of rural revitalization policy, and it is very necessary to analyze the support path of green finance to rural industrial development at this time.

## 2 Theories Related

### 2.1 Definition of the Concept of Green Finance

In 1995, the State Environmental Protection Administration (SEPA) published the Notice on the Use of Green Credit to Promote Environmental Protection to the public, in which the concept of green finance was first introduced. On August 31, 2016, the People's Bank of China and several ministries and commissions, including the Ministry of Finance, jointly issued the "Guiding Suggestions on Building a Green Financial System," in which a clear definition of green finance was given. Green finance refers to the development of green finance for the purpose of enhancing environmental protection, making efficient use of resources, achieving the goal of sustainable development, using the financial industry's fund dispatching ability to achieve optimal allocation of resources, eliminating high energy-consuming industries and low output industries, and vigorously supporting green industries to ensure sustainable economic growth [1].

### 2.2 Analysis of the Mechanism of the Role of Green Finance in Supporting Rural Development

#### **The Direct Mechanism of Green Finance Supporting Rural Development**

Green capital can complete direct supply. Green capital can serve the strategy of rural revitalization and give financing support in ecological agriculture and ecological governance. The green development of the countryside has a great demand for capital, and green finance provides a large amount of capital for achieving green development and effectively driving rural industries to achieve prosperity, and green credit among green capital can directly bring financial support for the development of green economy in the countryside. Entrepreneurs in rural areas can also make use of green business loans to realize their business dreams, and financial institutions can also guide the entrepreneurial direction, make reasonable use of rural resources, improve the income level of people in rural areas, and bring assistance to the development of agricultural green industries through capital support.

Green finance can achieve ecological risk avoidance. Through the introduction of agricultural environmental liability insurance, planting weather insurance, agricultural quality and safety guarantee insurance, etc., these types of insurance can hedge certain risk factors for rural development in ecologically fragile areas and enhance the anti-risk capacity of rural areas in order to protect farmers' properties in the event of disasters and prevent farmers from becoming poor due to disasters.

#### **The Indirect Mechanism of Green Finance Supporting Rural Development**

Green finance can guide the direction of green development in the countryside. The low cost and high convenience of green financing can guide the development direction of the main body of agricultural business by using green finance to equip them with the concept of green development, which can realize the revitalization of the countryside on the one hand and complete the transformation of green development at the same time.

Green finance indirectly drives the ecological environment management. In rural areas, financial subsidies and ecological compensation are common ways to support and guide at the policy level so that the environment in rural areas can be improved.

Green finance has changed the governance transmission system in the countryside. In order to obtain green financing in rural areas, it is necessary to examine the qualifications of farmers and start the credit rating of farmers, which involves a large number of work contents, such as setting up credit villages, credit enterprise rating and other activities, all of which need to build out a green credit system in rural areas, through which farmers can have the concept of honesty and trustworthiness, which is conducive to strengthening the social effect of rural governance [2].

### **3 Current Situation of Green Finance Support for Rural Development-Take Zhangye City as an Example**

Zhangye City is located in the northwest of Gansu Province, the middle of the Hexi Corridor, is an important ecological security barrier in western China. With a total area of 38,600 square kilometers, it now governs Ganzhou District and six districts and counties of Shandan, Gaotai, Sunan, Linze and Minle. By the end of 2020, Zhangye City had a total population of 1,310,160,000 people and completed a regional GDP of 46.705 billion yuan. This chapter will analyze the current situation of green finance supporting rural development in Zhangye City from three aspects: green credit, insurance and bonds.

#### **3.1 Green Credit**

Green credit is the most basic and core position in the green financial system, and since China's financial system is still dominated by banks, green credit is one of the main ways of indirect financing for green finance. Based on the statistical index of green credit of BIS (new index will be implemented in 2019), as of the end of 2020, the balance of various loans in Zhangye City is 191.861 billion yuan, of which the balance of green credit is 14.53 billion yuan (see Fig. 1 for details). As can be seen from Fig. 1, compared with the various loan balances, green loans are very small, and the development potential is still very large. 2019 rose by a large degree, mainly because the year introduced the "green financial development implementation plan", the policy stimulated growth; and the year the implementation of hydropower development projects, green forestry development projects, resulting in loan amount growth. 2020 green credit balance decline, due to the new crown The epidemic affected the overall slowdown in economic development, some projects due for repayment, and an important factor is that the new green credit statistical indicators one year after the implementation of the adjustment of the previous mistakenly included in the statistics, green loan data has been tightened.

#### **3.2 Green Insurance**

Among the green financial system, green insurance occupies a very important position, through which it can protect the agricultural production and other activities in rural areas. There are nine property and casualty insurance companies in Zhangye city engaged in

Time	Various loan balances	Green Loan Balance	Green Loan Increase	Percentage of Green Loans
2016	1311.18	-	-	-
2017	1434.39	110.97	-	7.74%
2018	1560.93	128.12	15.45%	8.21%
2019	1726.83	163.02	27.24%	9.44%
2020	1918.61	145.30	-10.87%	7.57%

**Fig. 1.** Scale of agriculture-related loans and green loans in Zhangye City (Self-made)

Category	Coverage	Number of insured households (million)	Premium size	Benefit amount
Environmental Pollution Liability Insurance	It mainly protects the environmental liability caused by sudden environmental pollution accidents, such as water, soil and air pollution caused.	0.0064	119.87	2.5
Residential earthquake insurance for urban and rural residents	Compensation for direct damage to housing property caused by earthquakes of magnitude 5 or above and related secondary disasters within 72 hours in the insured area.	18.15	1219.11	0
Agriculture, forestry and fisheries disaster insurance	There are more scenarios, among which catastrophe insurance is to cover significant yield loss caused by natural disasters such as heavy rainfall, floods and freezes, as well as accidents such as landslides, fires, pests and diseases, etc. for the relevant breeding stock. Price index insurance is to protect the loss of selling price when the market price of agricultural products is lower than the normal level. African swine fever culling insurance is to cover the loss caused by the government's compulsory culling of diseased pigs.	5.86	805.98	3578.53
Total		24.02	2144.96	3581.03

**Fig. 2.** Green insurance participation and payout in Zhangye City in 2020 (Unit: RMB million) (Self-made)

green insurance business, and the types of insurance include environmental pollution liability insurance, catastrophe insurance, and agriculture, forestry and fishery disaster insurance as shown in Fig. 2.

As known from Fig. 2, the implementation of environmental pollution liability insurance early and small-scale, from 2014, but due to higher premiums, pollution accident identification difficulties, etc., the number of insured declined year by year, only 64 times in 2020, and most of them are industrial enterprises such as cement, agricultural enterprises accounted for less than 10%.

Strong policy of earthquake insurance for urban and rural residents' dwellings. As of 2020, Zhangye City has insured a total of more than 181,500 households, with a participation rate of 30% for urban and rural residents, including more than 80% for rural residents and 100% for poor people. The premium balance is 12,191,100 yuan, with financial subsidies at all levels nearly 90%. Although no payout situation has occurred, the insurance

Time	Balance of various bonds	Green Bond Balance	Percentage of Green Bonds
2017	146.05	40	27.39%
2018	134.17	39.98	29.8%
2019	122.91	39.97	32.52%
2020	84.94	6.99	6.64%

**Fig. 3.** Balance of green bonds in Zhangye City from 2017 to 2020 (Unit: RMB billion) (Self-made)

is effective in reducing contingent losses from earthquake disasters and strengthening the benign interaction between government resources and insurance resources.

Agriculture, forestry and fishery disaster insurance has many varieties and high payout rates. It mainly includes catastrophe insurance for various crops, fattening pig price index insurance, African swine fever culling insurance, etc. This type of insurance has a strong policy and high market recognition, but is obviously undersupplied. The payout rate of agricultural disaster insurance is quite high, and agencies generally cannot make ends meet mainly relying on policy subsidies to maintain operations. In general, although there are many types of green insurance, the scale is small and commercial institutions are less involved; farmers are highly motivated to participate in insurance, and the demand is strong, there is a more prominent contradiction between supply and demand.

### 3.3 Green Bonds

The data collected from the BCI is summarized in Fig. 3. In 2017, Zhangye City Municipal Commercial Bank issued 4 billion yuan of green financial bonds, of which 3.3 billion yuan of three-year bonds and 700 million yuan of five-year bonds were issued at an interest rate of 5.3% to 5.6%, with a relatively high interest rate level across the board and a debt rating of AA, all of which were issued successfully in that year. Nearly 3.3 billion yuan of bonds were redeemed at maturity in September 2020.

As can be seen from Fig. 3, the balance of green bonds accounts for a significant proportion of the balance of various bonds issued in the city. It can be seen that urban commercial banks are more active in broadening financing channels through green financial bonds, improving their asset and liability structures, and promoting the transformation of business focus to key areas supported by the state. In addition, considering the rising cost of funds in the market, commercial banks are more likely to choose to issue short- and medium-term green bonds.

## 4 Main Difficulties and Problems

According to the current situation of green finance supporting rural discovery in Zhangye City, we can understand that green finance in Zhangye City has come to a new period of development, but the development of green finance is still in the exploration period, immature compared to traditional finance, and the development of green finance in the countryside still faces more difficulties, mainly in the following aspects.

#### **4.1 The Green Development Concept of Financial Institutions Needs to Be Substantially Strengthened**

In terms of green finance development, banks only stay in the macro perspective and lack supporting facilities at the micro level, especially institutions and outlets dedicated to serving green finance. In the process of implementing loan management, new green products, public welfare green projects, etc. still cannot be landed, so these have affected the development of green finance in rural areas [3].

According to the data in Fig. 1, the balance of green loans in Zhangye City reaches 14.530 billion yuan, which accounts for 7.57% of the total loan balance. This shows that green loans still have more room for improvement. In Zhangye, more than 60% of green credit is used for ecological project restoration, clean energy construction, etc., while the balance of green loans related to agriculture such as green agricultural development, green forestry development, natural forest nature protection, resource utilization of agricultural and forestry waste, comprehensive management of soil erosion, etc. accounts for less than 28%, which shows that the distribution of green credit is extremely unbalanced.

#### **4.2 Rural Green Financial Development Has a Disconnect Between the Three Levels of Subject, Instrument and Foundation**

The first level is the subject level. The main institutions promoting green finance are banks, securities, insurance companies, trusts, funds, etc., but the docking subjects are mainly legal persons. In the process of implementing the rural revitalization strategy, there are many legal entities that are generally small in scale and distributed in various regions, so they cannot form a scale effect. Many of them are not qualified for loans, or there are more restrictions on the loan term and credit limit.

The second level is the tool level. At this stage, the financing channels in rural areas are mainly private financing and banks, and financing methods such as credit, stocks, bonds, funds, trusts and insurance are still not popular, and rural subjects will be limited by their subjective ability as well as objective conditions in terms of cognition and operation to access these types of financing.

The third level is the basic level. The development of green finance in the context of rural revitalization requires the establishment of strong basic financial service facilities and outlets in rural areas, but many banks do not carry out the layout of outlets in rural areas and the facilities are relatively scarce, so green finance cannot play its proper role [4].

#### **4.3 Green Agricultural Products Certification and Environmental Information Disclosure and Sharing Mechanism is not Sound**

Firstly, there is a lack of reasonable certification system for green agricultural products and green projects, and the domestic certification standards for green agricultural products are very complicated. Secondly, the environmental information lacks a corresponding disclosure system. There are no reasonable evaluation indexes and disclosure standards constructed for waste, carbon dioxide, sewage treatment, etc. Therefore, rural areas are weak areas for environmental monitoring as well as law enforcement [5].

#### **4.4 The Basic System and Policy Support System for the Development of Rural Green Finance is not Perfect**

First of all, the policy support system is not perfect in rural areas, involving green projects often have very long investment cycles and generally low yields, so only the state can step in to support the projects from the policy to make them operate stably. Second, the basic system still needs to be improved and optimized to ensure the healthy development of green finance, which must be based on the law. From the institutional level, the construction of China's environmental economic legal system is still not perfect, and there are still many blank areas, which leads to the green finance in the business operation level can not be realized, there are obstacles to various businesses.

### **5 Practical Paths**

Green finance should find a breakthrough point and focus point according to the strategic rhythm of rural revitalization, actively cooperate with it from the perspective of the system system, strengthen the system supply of green finance, create a number of demonstration areas for financial development, and gradually optimize green development with the demonstration areas as an example.

#### **5.1 Find the Right Development Area to Achieve Accurate Docking**

Rural revitalization has put forward numerous development requirements, and green finance should sort out the existing resource situation, find reasonable docking channels, and provide key support to the fields and projects that need urgent support to ensure that rural green finance can achieve sustainable development in rural areas. At present, the green development of the countryside needs to be implemented around the following key points. Firstly, it is to drive industrial revitalization to provide guarantee for the development of agricultural modernization and promote a high-quality and green development mode of agriculture. Secondly, it drives ecological revitalization to build beautiful countryside. The third is to promote the development of talents and cultivate an excellent professional, farmer team.

#### **5.2 Focus on Rural Small Financial Institutions and Cultivate Rural Green Financial Organizations**

The layout of the financial network is optimized, focusing on the rural market, bringing into play the role of rural small and medium-sized financial institutions, and promoting the expansion of rural green finance on the basis of small and medium-sized financial institutions as an important carrier. The first is to develop more rural financial service outlets, and the financial service network related to agriculture should be expanded in a timely manner, granting the business authority of grassroots branches to provide financial support for the development of rural areas. Secondly, giving certain preferential treatment in policy, allowing financial institutions in rural areas to participate in green investment and fund operation, etc., encouraging the creation of equity investment funds,

venture capital funds, etc., so that these financial institutions can also participate in the field of green investment, and thirdly, using policy for guidance, giving interest subsidies for agricultural loans.

### **5.3 Innovative Rural Green Financial Products and Tools to Expand Social Capital Entry Channels**

The first is to innovate in green credit products to enhance the proportion of green credit, set more green credit products, and bring a full range of financial services for product pricing transactions, etc. The second is to further expand green industry financing channels. The issuance of green bonds and the revitalization of rural industries should be integrated, and the list of green bonds should be expanded to include projects related to agricultural green development such as clean energy, recycling, ecological agriculture, etc. into the scope of bond financing. Finally, promote the development of rural green insurance market, pay attention to agriculture, forestry, animal husbandry and fishery, and new insurance products can be set up in several fields, such as land transfer income insurance to further expand the scope of insurance and abundantly launch rich insurance products [6].

### **5.4 Improve the Environment of Green Financial Mechanism and Accelerate the Seamless Integration with Rural Development**

First of all, the government should do a good job in guiding the development of the countryside. The government should give guidance, clarify the direction of green development, develop evaluation and certification standards for green enterprises, optimize the evaluation system of green enterprises, improve the environmental information disclosure system, combine local characteristics and industrial features, develop a green project database, and actively dock with financial institutions to share project information. Secondly, the role of finance should be highlighted. In the field of supporting rural green finance, finance can be used as risk compensation to pry more capital, using financial subsidies and guarantee funds to drive social capital to flood into rural areas, sharing financial risks and bringing a quality credit environment for rural revitalization.

## **6 Conclusion**

Green finance occupies a very important role in the implementation of rural revitalization strategy and is a support for the development of green economy in rural areas. Compared with traditional financial activities, green finance focuses more on social and ecological benefits, and is designed to achieve simultaneous development of economic development and environmental protection. The resource allocation of rural revitalization and the goal of green finance have something in common, both adopt the concept of green and sustainable development, protect the environment on the one hand, promote economic growth on the other hand, and use all funds in an integrated manner to protect the ecological environment, which is conducive to the natural and harmonious development of rural revitalization. From a strategic perspective, green financial services can meet the financing needs of rural green industry development and bring inexhaustible power for rural revitalization development.



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