

# Practice and Thinking of Agricultural Financial Institutions Supporting Green Development

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**Abstract:** In the 21st century, facing the double challenges of economic growth and sustainable development, banking supervision departments take the lead in formulating green credit policies, so as to guide banking financial institutions to take environmental and social sustainable development into account in credit decision-making, and then strengthen banking risk management and expand green financial products and services. Strengthening the cooperation between finance department and science and technology department is to solve this bottleneck. The best choice. As the only state-owned agricultural policy bank in China that implements relevant national policies, China Agricultural Development Bank has an unshirkable responsibility and obligation to better support the popularization of agricultural science and technology in China. Among the many elements of agricultural industrialization, the role of capital is extremely important. The development of agricultural industrialization requires the participation and financial support of governments, policy oriented financial institutions, commercial banks, rural cooperative financial organizations and their individuals. At present, insufficient financial support is a prominent problem in the development of agricultural industrialization. In combination with the actual situation and experience of Area A, put forward relevant suggestions on how to better promote the green credit development of Agricultural Bank of China Branch A.

## 1. Introduction

At present, China's economy is in the most critical and complicated period of transformation and structural adjustment. New green environmental protection industries have sprung up everywhere, with a strong development momentum, and traditional industries are gradually undergoing green transformation. With the development of new and old industries, the demand for "green finance" is increasing day by day. As the main financial institution that holds the lifeline of the national economy, the banking industry has formed a strong demand for green credit in this adjustment [1]. In February, 2006, the national fifteen-year science and technology development plan explicitly required that policy finance should be strengthened to support independent innovation of science and technology, and policy financial institutions should provide key loans to major national science and technology projects such as transformation of scientific and technological achievements, and China Agricultural Development Bank, as an agricultural policy bank, should provide credit support to transformation and industrialization of agricultural scientific and technological achievements [2]. To improve the conversion rate of agricultural scientific and technological achievements, accelerate the popularization of agricultural science and technology, and provide the necessary scientific and technological guarantee and support for the construction of new socialist countryside in China, we must greatly increase the investment in agricultural science and technology [3]. The ultimate way out for China's agricultural development lies in agricultural science and technology. Finance plays an important role in social and economic development in many aspects. Finance influences the capital flow structure, the distribution structure of production factors, the capital stock structure, and finally the industrial structure, which promotes the input of economic factors and the improvement of factor productivity [4]. The causes of the shortage of funds in agricultural industrialization are various. In addition to the factors related to the characteristics of agricultural industrialization, they are more related to China's current financial policy, financial system and financial policy guidance.

In recent years, China's rural financial system has a trend of single financial institutions. The original state-owned financial institutions have gradually faded out of the rural financial market, and other rural financial fields have lagged behind. The rural financial structure, which is severely weakened, cannot meet the needs of agricultural industrialization financial services [5]. But for financial institutions, risk control is the first and profit is the purpose, so they are unwilling to provide loans for agricultural processing enterprises. In addition, the geographical distribution of financial institutions is also unbalanced, and the agricultural financial guarantee system is not sound enough. Some agricultural processing enterprises in remote areas have more difficulties in financing. These factors have seriously restricted the development of agricultural product processing enterprises [6]. The main business of Agricultural Development Bank of China is policy related business such as grain, cotton and oil purchase. According to the deployment of the Central Committee of the Communist Party of China and the State Council, in recent years, Agricultural Development Bank of China has continuously expanded its business scope, strengthened credit support for agriculture, and actively launched various loans and services to support agricultural processing enterprises, providing strong support for these enterprises in implementing industrialized operation, enhancing enterprise competitiveness, and enhancing social influence [7]. For this reason, this paper starts from the microcosmic point of view, taking the behavior of Branch A of China Agricultural Bank as the research object, using the fuzzy comprehensive evaluation method, establishes the evaluation mechanism of bank green credit, integrates various factors related to bank green credit into the model, analyzes the evaluation problems through data operation, tries to find out the factors restricting the development of green credit of Branch A of China Agricultural Bank in the evaluation conclusion, and puts forward targeted countermeasures to realize the development of green credit of Branch A of China Agricultural Bank, so as to promote the healthy and rapid development of green credit of Branch A.

## **2. Related theories of financial institutions supporting green development**

### **2.1. Overview of related theories of green credit**

In development economics, the literature on rural financial theory is very rich. During the evolution of rural financial theory, there are mainly agricultural credit subsidy theory, rural financial market theory and incomplete competition market theory [8]. That is, through rural bank branches and agricultural credit cooperation organizations, a large number of low interest policy funds will be injected into rural areas. At the same time, there are inherent defects in the agricultural credit subsidy theory, which is mainly manifested in that the agricultural credit subsidy policy will gradually damage the sustainable development ability of the financial market, leading to the decline of the vitality of credit institutions, which ultimately makes the agricultural credit subsidy policy costly, but has little effect [9]. In China, agricultural scientific and technological achievements can be classified into four categories according to different needs. First, according to the nature of research, it can be divided into basic research achievements, applied research achievements and development research achievements. Basic research achievements mainly refer to research papers, works and other literal achievements with universal theories in a wide range of scientific fields, which are generally regarded as non materialized technologies [10]. The so-called green credit means that financial institutions such as commercial banks and policy banks, in accordance with the national environmental and economic policies and industrial policies, provide loans to enterprises or institutions engaged in research and development, production of pollution control facilities, ecological protection and construction, development and utilization of new energy, circular economy production, green manufacturing and ecological agriculture, and implement preferential low interest rates, while limiting the loan amount of investment loans and circulating funds for new projects of polluting production and polluting enterprises and implementing punitive high interest rates. Specifically, financial institutions set up environmental access thresholds in the credit field, and cut off the credit supply for restricted and eliminated projects by providing credit support to environment-friendly and resource-saving enterprise projects, giving credit support and affirmation

to the survival and development of green industries from the source, cutting off the economic lifeline of two high industries and one surplus industry, and then realizing the ultimate goal of industrial structure adjustment, environment optimization and sustainable development.

The essence of environmental finance is that financial institutions play the role of capital guidance in the process of financing, and introduce capital into projects beneficial to environmental improvement to indirectly improve the environment. The root cause is that the fundamental attribution of environmental finance is still finance, and the main factors affecting it are still risk, capital, price, cost and other financial factors. As far as its content is concerned, environmental finance has the following two aspects: on the one hand, repositioning the financial function. On the other hand, environmental finance helps the development of emerging environmental protection industries. Environmental finance supports low-carbon economy, green economy and other environmental protection industries, gives them environmental protection technology funds, supports the innovation of green financial products, and promotes the innovative development of environmental protection technologies and products. At the same time, in the actual operation of environmental finance, it emphasizes the importance of the environment and virtually improves the performance of financial enterprises on the environment. In addition, environmental finance can also guide the investment of public funds and effectively overcome market failure. The important factor of agricultural industrialization development is the construction of a sound market system, and the establishment of agricultural products market needs strong financial support, so as to cultivate and improve a number of regional, large-scale, specialized agricultural and sideline products professional wholesale markets, intermediary organizations and information network markets with strong radiation, reduce market risks and stabilize sales channels in an organized and planned way.

## **2.2. Main characteristics of agricultural capital investment in industrialization**

According to the theory of enterprise financing sequence, enterprise financing can be divided into external financing and internal financing. Among them, endogenous financing mainly refers to the enterprise's own funds and operating income, and there are two forms: internal equity raising and debt raising. The capital accumulation in the process is the part of capital accumulation in the process of production and operation; External financing is mainly divided into direct financing and indirect financing. The development of green credit must pay more attention to the environment and evaluate the social risks. To this end, Sub branch A, first of all, took the industry characteristics as the dimension and the environmental and social risk points of the project as the focus of its investigation in the due diligence link. Secondly, in the process of review and approval, we will focus on reviewing whether the customer's relevant measures in controlling environmental and social risks are complete, legal and compliant. If not, we will directly "veto with one vote". Thirdly, in the process of using credit, the allocation of funds is also based on the specific situation of the customer's management of environmental and social risks. Finally, in the post loan management link, if the customer has high environmental and social risks, such as environmental protection litigation, administrative penalties, or negative reports, the sub branch credit department will increase its risk investigation efforts and take timely measures to control risks. Sub branch A carries out enterprise credit according to the procedure of rating first, then classification, and then credit extension. The specific credit business process of Sub branch A is shown in Figure 1.

Within the business scope permitted by the national laws and regulations, on the basis of the government's credit, we use different financial means to carry out the financial activities of deposit and loan, discount interest, guarantee, insurance and investment directly or indirectly for the implementation of the country's development strategy and policy, and provide preferential treatment for them. It can be seen that to promote the development of rural and agricultural economy, it is essential to increase the investment of agricultural related funds. Under the system of market economy, the source of rural agricultural funds should have been decided by the market, and the government's behavior can only play its auxiliary and guiding role, so it should not interfere excessively. At the same time, due to the profit-seeking nature of capital, social funds will not

actively enter the agricultural economy. Therefore, it is difficult for the agricultural economy to obtain financial support from general commercial banks or other financial institutions. This is the significance of the existence of agricultural policy-oriented financial institutions. The low-cost funds raised from the whole society, according to the will of the state, will be invested in the whole agricultural economy to support the development of agricultural industry and agricultural regional economy.

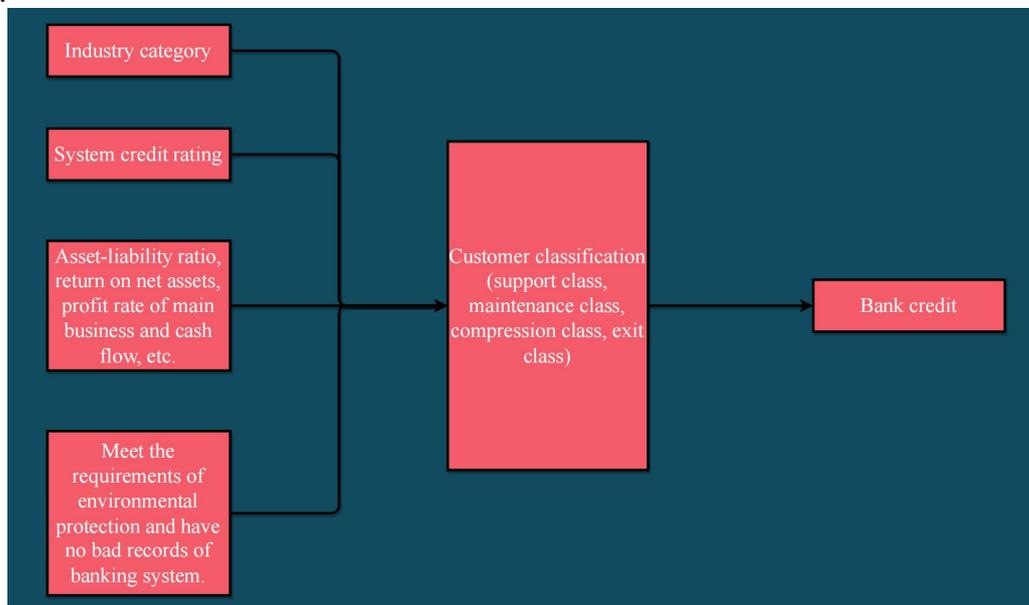


Figure 1 Schematic Diagram of Credit Process

### 3. Suggestions on Improving the Development of Green Credit in Agricultural Sub-branches

#### 3.1. Create a good external environment for the development of green credit

The domestic practical experience shows that the government's support, attention and participation in green credit of commercial banks is the main force to promote the development of green credit. In addition to relevant laws and regulations, increasing the assessment of green credit behavior of governments at all levels is an effective way to promote the government to truly play its role in guiding green credit. By increasing the proportion of green credit enterprises encouraged by the local government, the degree of green credit participation, the number of projects involved and other assessment items, the local government is urged to make full use of its own advantages, play its role, and promote the development of local green economy and green credit. From the perspective of regional distribution, the broad money supply corresponding to the rural economy is still lower than that of urban areas. The decline in the proportion of rural credit and the low proportion of per capita credit to per capita output value of the annual agricultural population are very obvious. Financial repression is manifested as supply-oriented financial repression in rural areas of Yangzhou, that is, rural financial institutions are few, outlets are few, funds are small, and the total supply is insufficient, thus forming a prominent contradiction in agricultural industrialization. On the one hand, the demand for funds from agricultural industrialization is constantly expanding, on the other hand, the urbanization of rural capital resources is intensifying. At the same time, in order to prevent the risk of credit operation, the Agricultural Bank of China has also implemented a series of credit management responsibility system, such as lifelong investigation of loans. This has led to the prominent phenomenon of more deposits and less loans or only deposits and no loans in rural financial services, which makes agricultural loans more difficult.

Among the four major commercial banks in China, the efficiency, asset scale and capital adequacy ratio of the Agricultural Bank of China are extremely low, and it has a huge number of non-performing assets. The annual non-performing loans transferred by the Agricultural Bank of Yangzhou to Great Wall Asset Management Company alone amount to 100 million yuan. These

factors restrict its support for agricultural industrialization to some extent. Therefore, the Agricultural Development Bank should take active actions, make use of its huge agricultural economic information network and its market information advantages, and provide consulting services for agricultural enterprises on industrial policies and market conditions. It is the survival and development of enterprises to help them recognize the market, formulate their development strategies reasonably, and make correct choices in the complex and changeable market. Determine the green credit supervision committee, and the designated department will supervise and inspect the development of green credit. The Green Credit Supervision Committee regularly supervises and inspects the green credit of financial institutions and local governments, and regularly verifies, implements and reports the development of green credit. Each financial institution and government department shall establish a dedicated green credit department to supervise and urge the development of green credit of commercial banks. Internal and external supervision shall be carried out on a line by line basis, and an all-round supervision system shall be established to ensure that the supervision is not mere formality and that green credit can be carried out effectively. As shown in Table 1.

Table 1 Factors that make it difficult for enterprises to obtain loans from financial institutions

Factors that make it difficult for enterprises to obtain loans from financial institutions	Number of enterprises	Proportion of enterprises answered
High financing cost	1	5.3
National credit policy	2	10.5
Difficulty in obtaining third-party guarantees	1	5.3
The credit status does not meet the bank requirements	7	36.8
No eligible mortgage assets	13	68.4
Cumbersome formalities	0	0
Lack of necessary special stakeholders	1	5.3
Other	0	0

At present, most of the loans obtained by rural enterprises in Yangzhou are mortgage and guarantee loans, while farmers only have pledge and joint guarantee loans. On the one hand, rural enterprises are small in scale, with few mortgaged assets and low evaluation value. The "two certificates" of land and factory buildings in the existing assets are incomplete, and there is no guarantee unit. Rural houses can't be mortgaged, and farmers have no assets mortgage. Only relatives and friends borrow deposit certificates or insurance policies for pledge. In a few places, joint insurance between households is used to obtain a small amount of loans, and most farmers have no way to get loans. On the other hand, the mortgage of real estate and land is expensive for appraisal and notarization, which some borrowers can't bear. At the same time, due to market restrictions, banks are reluctant to accept collateral, which limits the demand for loans.

### 3.2. Strengthen the development and innovation of green credit products

Agricultural Development Bank should further enhance its sense of responsibility and mission to support agricultural products processing enterprises. Agricultural products processing enterprises carry out market development, technological innovation, guide and organize the production of farmers and production bases. Their prosperity and decline directly affect agricultural efficiency, farmers' income and rural stability, and are related to the soaring and sustainable development of agricultural economy. The development of agricultural products processing enterprises, especially the rise of leading enterprises in the industry, increases farmers' income, and also improves the efficiency of enterprises. However, we should clearly realize that the overall level of agricultural products processing enterprises is still not high, and the progress of modern agricultural industrialization is still relatively slow. The construction of new urbanization is an important topic at present, and the hot spot of "H agriculture" is the construction of small towns. For the construction of small towns, the aspects involved include all kinds of infrastructure construction,

and the development of public welfare undertakings such as education and health, all of which have huge financial needs. However, at present, the head office has not issued the corresponding policies and measures for this kind of loans, which has increased the marketing difficulty of grass-roots banks to a certain extent. Establish a "green" corporate culture and strengthen the social responsibility consciousness of commercial banks. Enterprise culture is the ideological guidance of enterprise development.

Commercial banks determine the corporate values and corporate culture of "green development", so that commercial banks can consciously operate from the perspective of environmental protection, green and sustainable thinking in all commercial activities, including green credit, strengthen the social responsibility awareness of commercial banks, and promote the better completion of social responsibility. For example, the government compensates the low interest rate losses of commercial banks according to the green credit granting line of commercial banks, and adopts incentives such as tax deduction according to the green credit granting line. First, at the national government level. Relevant government departments should encourage the development of green credit of commercial banks and the R&D and innovation of their products, and formulate corresponding policies to subsidize them. Secondly, at the level of commercial banks. On the basis of fully implementing the national economic and environmental policies, commercial banks should take full advantage of their own credit operation characteristics and business distribution types to actively innovate green credit products. In addition, commercial banks should also focus on the development and popularization of green credit related derivative financial products, such as research, development and promotion of green bonds, green funds, green insurance and other green related financial derivatives. Compared with developed countries, China has not yet issued professional laws and regulations on policy banks. The regulatory authorities still supervise the Agricultural Development Bank indiscriminately according to the regulatory measures of commercial banks. Relevant laws and regulations pertaining to agricultural policy banks should be issued. At the same time, we should learn from the tax policies of the United States, increase preferential policies in taxation, make up the capital, and effectively realize the full agency allocation of government funds for agriculture and the ability to manage the risks of commercial agricultural development. Strengthen farmers' vocational education and training. At present, there is a considerable gap between the cultural quality and skill level of farmers in China and the requirements of agricultural science and technology popularization. We should learn from the vocational training experience of farmers in Switzerland and Japan, gradually train new farmers and modern farmers, and gradually change the backward situation of rural vocational education.

#### **4. Conclusions**

The construction of agricultural infrastructure is the most important issue in agriculture and rural areas in recent years. At present, this task has just set foot on the road of departure, and we will face greater challenges in the future. With the vigorous development of rural infrastructure construction, new problems will continue to emerge. To effectively support the development of agricultural industrialization, rural finance must improve the reform of rural financial system and establish a diversified and orderly competitive financial market. The development direction of China's rural financial system should be a diversified rural financial system, dominated by commercial financial institutions and cooperative financial institutions, supplemented by policy finance and private finance. The results of this study show that: at present, the factors restricting the role of agricultural policy based financial support are: the imperfect legal system, especially the laws related to policy based finance have not yet been introduced, so there is no legal guarantee for financial support; Secondly, the supervision system is not perfect. Since the Agricultural Development Bank is the only agricultural policy bank in China at present, the status of the Agricultural Development Bank of China and its role in promoting the development of agricultural product processing enterprises cannot be replaced by other banks. Finally, we should formulate corresponding preferential policies for agricultural product processing enterprises and provide more financial support. So as to realize the cooperation of various aspects and lay a solid foundation for the realization of agricultural

industrialization.

## References

- [1] Ahlberg K L. "Food for Peace is a Moral Program": The Intersection of Agricultural and Human Rights Policy during the Carter Administration[J]. *Agricultural History*, 2021(1):9-15.
- [2] Liu H, Huang W. Sustainable Financing and Financial Risk Management of Financial Institutions—Case Study on Chinese Banks[J]. *Sustainability*, 2022, 1-4.
- [3] Bedi S M, Kornher L, Braun J V, et al. Stimulating Innovations for Sustainable Agricultural Practices among Smallholder Farmers: Persistence of Intervention Matters[J]. *Journal of Development Studies*, 2022, 5-8.
- [4] Yin X, Xu Z. An empirical analysis of the coupling and coordinative development of China's green finance and economic growth[J]. *Resources policy*, 2022(75-):7-15.
- [5] Wang M, Feng C. Revealing the pattern and evolution of global green development between different income groups: A global meta-frontier by-production technology approach[J]. *Environmental impact assessment review*, 2021(Jul.):8-9.
- [6] Roney J. A level playing field in global agricultural policy: Quest for the holy grail?[J]. *International Sugar Journal*, 2021(Jul. TN.1471):12-23.
- [7] Liu S, Qi H, Wan Y. Driving factors behind the development of China's green bond market[J]. *Journal of cleaner production*, 2022(Jun.20):3-5.
- [8] Tang Y, Chen S, Huang J. Green research and development activities and SO<sub>2</sub> intensity: an analysis for China (Nov, 10.1007/s11356-020-11669-0, 2020)[J]. *Environmental Science and Pollution Research*, 2021(3):2-8.
- [9] Wang D, Huang W Q. Systemic Importance of Chinese Financial Institutions Based on Volatility Spillover Network[J]. *Systems Engineering*, 2018:5-12.
- [10] Katie H. 401 Cooperative Extension in Indigenous Communities: Perspectives of 1862 and 1994 Extension Educators[J]. *Journal of Animal Science*, 2022,26(5):2-3.