

Exploring ways to build a green financial system in rural China

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Abstract: With the establishment of the green development concept in China, green finance has become the new direction of the current financial reform. Compared with urban areas, the problem of environmental pollution in rural areas is more serious, and environmental governance requires a large amount of capital investment, which cannot be separated from the support of green finance. At present, the central government proposes to implement the strategy of rural revitalization and take the road of green development. Returning to the reality, when the current rural financial institutions introduce green finance business, they will face difficulties such as insufficient value driving force, high cost of green credit investigation and scarce green talents. Therefore, the government must play the first moving role by implementing mandatory institutional change, planning out a top-level design, establishing a green assessment platform, promoting villagers' participation in environmental protection and other measures to ensure that the green financial system is fully implemented in rural areas.

1. Introduction

As China's overall economy has entered the "new normal", more and more attention has been paid to the sustainable development of economy, especially the coordinated balance between economy and environment. In his report to the 19th national congress of the communist party of China (CPC), general secretary xi jinping proposed to build a community with a Shared future for mankind, build an ecological system that respects nature and green development, and take "upholding the harmonious coexistence of man and nature" as the basic national strategy for the new era. Therefore, on the basis of the concept of green development has been elevated to the national strategic level, green finance will inevitably become the irreversible trend of China's financial development.

Under the new situation, green finance is becoming a hot spot of the current academic circles, many scholars have made a beneficial discussion on how to introduce green finance, but mostly concentrated in the carbon financial products innovation, large commercial Banks involved in the green, green bond index is introduced into higher-end issues, and most of the rural environmental pollution rather neglected on the whole, specializing in rural community green finance literature is

less, the field has not been into the systematic discussion. In fact, compared with urban finance, rural finance has a natural connection with green finance. On the one hand, green is the natural color of agriculture. On the other hand, unlike cities, which have a complete set of environmental protection supervision system, and villagers generally lack the awareness of environmental protection rights, they are more vulnerable to environmental pollution, so the establishment of a green financial system can protect the rural living environment. Therefore, green finance and rural finance have a coupling effect, and rural areas may need more support from green finance than urban areas.

The no. 1 document of the central government in 2018 clearly puts forward the strategy of giving priority to the development of agriculture and rural areas and comprehensively revitalizing rural areas.

At present, several national Banks mainly involved in agriculture are trying to carry out green finance business in rural areas. Such a pattern must be changed. A green financial system should be established in rural areas from point to point and local rural financial institutions should be involved in order to comprehensively improve the overall ecological environment in rural areas.

2. Current situation of rural environmental pollution and its institutional causes

In recent years, with the country's attention to environmental problems and the awakening of citizens' awareness of environmental protection, the urban environment has been continuously improved. However, relative to the city, the problem of rural environmental pollution is becoming more and more serious, showing the urban-rural dual environmental structure. In general, rural pollution sources mainly come from the following three categories:

First, chemical pollution caused by agricultural production. In modern agriculture in China, inorganic fertilizers are generally used instead of traditional organic fertilizers. In order to pursue yield, the area usage is often far beyond the safety limit of developed countries, which causes a large area of soil and water pollution and affects the ecological environment. Modern greenhouse planting technology introduced in rural areas can not only improve crop yield, but also bring "white pollution" to soil. Agricultural film fragments left in the soil will be decomposed into harmful substances and erode the soil, which will directly affect the quality and yield of agricultural products.

Second, the environmental pollution caused by the agglomeration of household garbage. Due to the scattered living in rural areas, backward infrastructure and the lack of centralized disposal sites for household garbage, the waste is often piled in the open air and simply burned when it accumulates to a certain extent, resulting in a large amount of dioxin and other harmful gases. Similarly, unlike cities, which have centralized sewage treatment systems, rural residents often discharge sewage nearby at will, resulting in surface source pollution to rivers. In addition, with the improvement of living conditions in rural areas, straw is no longer regarded as fuel and feed. In order to save labor, straw is burned directly after harvest. The rising smoke seriously damages the air quality in surrounding areas, and haze is easily formed.

Third, industrial pollution discharged by township enterprises. Township enterprises scattered in rural areas are mostly small and medium-sized enterprises with obsolete technology and equipment. They are mostly engaged in electroplating processing, textile printing and dyeing, chemical refining and other highly polluting industries. In the production process, a large number of industrial "three wastes" are generated. With the strengthening of the law enforcement of urban environmental protection, those high-polluting enterprises that cannot survive in cities have transferred to the rural areas with weak environmental protection supervision, aggravating the local environmental pollution.

According to the 2015 China environmental statistical annual report released by the ministry of environmental protection, the national emission data of major pollutants are shown in table 2. The unit emission of agricultural sources has exceeded that of industrial sources, especially in the unit chemical oxygen demand index. Compared with the gradual improvement of urban environment, the problem of pollution in rural areas cannot be solved for a long time. The problem cannot be simply attributed to the farmers' lack of environmental awareness.

1) "urban departmentalism" of legislation. In the past decade, China has significantly strengthened its environmental protection law enforcement. However, according to shang guan-liang and Yin yong (2011), the rural environmental protection problem has not been improved, but has become a victim of urban pollution transfer. As the basic law of environmental protection in China, the environmental protection law, needless to say, is mainly based on the issue of urban environmental protection. However, the specific difficulties in implementing environmental protection in rural areas are not considered enough. There is no special special protection for rural areas, and the same environmental protection standard is implemented in cities. The most obvious example is that although the bulletin on China's environmental situation issued by the ministry of environmental protection has pointed out for several consecutive years that "the transfer of urban pollution to rural areas has accelerated", and urban transfer pollution has become an important cause of rural environmental deterioration, it still cannot change this trend. The fundamental reason lies in the lack of prohibitive provisions in the environmental protection law on this practical issue, which makes it impossible to effectively stop ACTS that infringe on the rural environment, and fully shows the tendency of "urban departmentalism" on this issue.

2) Excessive regulatory costs. To achieve results in environmental protection, a large amount of money needs to be invested, and most of the rural township finance cannot cover its expenditure, which directly affects the implementation of grassroots environmental protection. According to relevant data, nearly one-third of the county-level environmental protection bureaus have not set up observation stations, and many towns and villages are not equipped with full-time environmental protection officers to monitor them in real time, thus failing to truly enforce relevant environmental laws and regulations. In addition, township enterprises in rural areas are small and scattered, and environmental protection departments often abandon supervision because of the high cost of monitoring.

3) Low cost of violation. The punishment clauses in environmental protection legislation have some hysteresis, and the punishment for enterprises' illegal pollution discharge is generally too light, which is difficult to deter. As rational people, enterprises know that the pollution produced by industrial production process is more destructive to the overall environment, but this behavior has externalities. When the benefits under the current system far outweigh the costs of environmental fines, then choosing illegal pollution discharge becomes a strict and superior strategy. Considering that the maximum fine of the newly revised water pollution prevention and control law in 2008 is only 1 million yuan, "low cost of breaking the law and high cost of abiding by the law" is indeed a true reflection of China's current environmental protection work.

4) Local protectionism. The problem of pollution in rural areas has been poorly enforced for a long time. The most obvious problem is that urban pollution has repeatedly been transferred to rural areas, and many polluting enterprises that cannot survive in cities have been accepted by rural areas. This involves local protectionism. Local governments have focused on boosting the local economy above all else, and these highly polluting companies are often big taxpayers, so they are still wooing the countryside for economic gain. At the administrative level, local environmental authorities are also subordinate to local governments, making it difficult to strictly enforce the law in their pursuit of polluters.

3. The necessity of green finance in rural areas

Environmental pollution has long been a prominent problem in rural areas, directly affecting the quality of life of villagers. The no. 1 document of the central government in 2018 for the first time gives a timetable for the improvement of rural residential environment, and decides to implement a three-year remediation plan, focusing on rural garbage, sewage treatment, village appearance and other three fields, integrating various resources, and steadily and orderly governance of rural residential environment. Now, the first real question is where does the money come from? Obviously, finance alone is far from enough. We must extensively integrate various social resources, especially the comprehensive injection of emerging green finance. In the face of accumulated pollution problems, it is particularly necessary to integrate the rural green financial system, which is mainly reflected in the following aspects.

3.1 Rural areas need to cope with the squeeze effect of urban green finance

In view of the rise of the concept of green finance in recent years, all major financial institutions are still in the process of exploring green finance business. There is a view that green finance is mainly oriented towards urban areas, and rural finance is not necessary to integrate with green finance at this time. The author believes that the green financial system should go hand in hand with the urban and rural areas. If the green finance system only covers cities, many of the companies that gave green credit a "no" might be able to move to the countryside under the guise of revitalizing the countryside and become good customers for rural credit cooperatives. The greater the difference in the implementation of green credit standards between urban and rural financial institutions, the greater the squeezing effect of urban pollution transfer on rural areas, which may make the rural living environment worse. Therefore, purely from the dynamic principle of pressure balance, it is necessary for rural areas to integrate green finance.

3.2 The need for comprehensive construction of environmental monitoring facilities in rural areas

At present, to implement the national strategy of rural green development, we must first build a comprehensive rural environmental monitoring facilities, otherwise everything is a castle in the air. For a long time, rural areas have been faced with inadequate environmental monitoring infrastructure, unable to provide a scientific basis for law enforcement, so that in fact it is difficult to include rural areas in the coverage of the environmental protection law. Due to the vast rural land and sparse distribution of villages, large-scale construction of environmental monitoring facilities requires a large amount of money, which cannot be borne by the state finance alone. The current environmental dilemma in rural areas is also related to the lack of national financial resources. At this point, the financing tools are green, the diversification of financial innovation can lead, especially for the public infrastructure PPP projects, the government public sector and private sector cooperation, with the aid of solve the fund shortage problem in the early stage of the social capital, the government only in the form of pay year by year in the future, can obtain the right to use the infrastructure and long-term to give multilateral win-win market way.

3.3 The green credit system can filter out the highly polluting enterprises in rural areas

As mentioned above, the survival of many highly polluting enterprises in rural areas is largely due to local protectionism. When the green finance system is introduced into rural areas, it can curb this phenomenon at the economic level. Once the rural financial institutions implement the

"environmental one-vote no" system on credit, only environment-friendly enterprises will get credit funds. If high polluting enterprises are excluded from green credit for a long time, they will face the risk of capital chain rupture, have to shrink the production scale, and their profits will be greatly reduced. It will be difficult for them to retain the title of large taxpayer, and thus lose their protection value. Sooner or later, local governments will comply with public opinion and order them to close down.

3.4 The need to control pollution sources in rural residential environment

With the rapid development of science and technology, great breakthroughs have been made in such environmental protection technologies as garbage power generation, straw gasification, agricultural film recycling and processing, and resource recycling of livestock and poultry manure, which can effectively solve the pollution source problems inherent in rural residential environment. However, the introduction of these large-scale high-tech equipment not only requires a large amount of capital, but also requires the unified planning and centralized treatment of pollution sources in several counties, which requires financial institutions and high-tech companies to jointly develop green financial innovation tools, so that green environmental technology can serve rural areas and improve the rural living environment. In the future, when the time is ripe, we can also introduce market-oriented emission trading in rural areas, and control the total amount of pollution sources in rural areas by introducing carbon financial instruments.

4. Ways to build a green rural financial system

Green finance is in the exploratory stage in the domestic financial circle, mainly large commercial Banks are trying green finance business, while rural financial institutions are basically in a wait-and-see state, with no strong sense of urgency, and fail to realize the great practical significance of developing green finance in rural areas. Therefore, the comprehensive construction of rural financial system will involve macro and micro levels, and the specific path is as follows.

4.1 Planning the top-level design of rural green finance

Concept is the forerunner of action. Firstly, establish the green development concept in rural areas. Rural financial institutions should take the pursuit of green ecological environment as their own responsibility and perform the green social responsibility throughout their daily business activities. People's bank of China, the China banking regulatory commission and other competent authorities shall according to the characteristics of rural finance, specially make a comprehensive applicable to rural green financial laws and regulations, with the city green finance with degree of differentiation, planning out the operability of rural green financial standards regulations, matching green weighting coefficient for all kinds of loans, such as green than the standard minimum deposit hardness index; Rural commercial Banks, rural cooperative Banks, county associations and other regional rural financial institutions must also set up an independent green credit committee to strictly implement the "one vote veto system for environmental protection". We will encourage qualified rural financial institutions to experiment with green bonds, green funds, green insurance, carbon financial transactions and other diversified green products. In particular, we will develop small green credits for rural households. With a complete top-level design, rural green finance can be carried out orderly and steadily.

4.2 Revise the legal system of rural environmental protection

As a kind of institutional change, the rural green finance system also needs the linkage support of the legal system in the neighborhood to effectively obtain the institutional benefits. To achieve sustainable development of rural green finance, we must completely reverse the "urbanism" in the environmental protection law and redefine rural pollution from the legal source. Although the shift of urban pollution to the countryside has long been a social problem, this trend has not changed. In order to truly implement the concept of green countryside, it is necessary to amend the current basic law on environmental protection, the environmental protection law, which expressly prohibits the transfer of urban pollution to rural areas. In addition to amending the basic law, it is also necessary to refine the supporting special laws and regulations on rural environmental protection, and stipulate specific standards on rural water quality, air, pesticides, fertilizers and other pollution, so as to form a relatively complete series of rural environmental protection law system and facilitate green finance to have environmental protection assessment standards. In addition, as the green concept becomes a national policy, the corresponding upper limit of illegal fines should be greatly increased to reverse the current situation of "high law-abiding cost and low law-breaking cost", so as to better play the credit guiding role of green finance.

4.3 Establish green information evaluation system

The assessment of enterprise environmental credit by green credit requires the help of environmental protection departments. However, the environmental protection information of enterprises in environmental protection departments is generally lagging behind and incomplete, and many township enterprises are out of monitoring. Therefore, rural financial institutions themselves need to establish an independent green assessment department to evaluate the green credit of enterprises in real time. In order to better play to their respective advantages, financial institutions and the need to establish a two-way information feedback mechanism between the environmental protection department, the environmental protection department prior to financial institutions provide the fundamentals of environmental protection of enterprise information, financial institutions will matter in gathering information feedback to the environmental protection department, the environmental protection department to be updated based on access to information, then feedback to financial institutions, environmental information to dynamic updates. For financing products such as green bonds and green funds, a third-party green rating agency should be set up, which is more marketable and professional, has a systematic grasp of the latest environmental technologies and can price environmental risks.

4.4 Encourage green finance innovation in rural areas

Differences in scale of rural financial institutions in China, in addition to the agricultural bank of China, postal savings bank, agricultural development bank of the three large national Banks, bank, agriculture GeHang, credit cooperatives, village Banks, rural fund cooperatives is regional financial institutions, such as means to functional division of labor, implement differentiation, and rural green financial brand. Financial institutions should comprehensively cultivate green finance compound talents and carry out green finance innovation. Big national Banks could raise the level of green technology in rural areas by building up large green PPP projects across the country, issuing green bonds or creating green funds. Small rural financial institutions can pay more attention to green microfinance, especially in the rural "toilet revolution" reconstruction project and renewable and clean energy, and encourage them to issue green special bonds to solve the problem of capital maturity mismatch. In addition, there is an urgent need for rural areas to develop environmental

pollution liability insurance to compensate third parties for damages whenever possible.

4.5 The government gives fiscal and tax support

Rural finance itself has a weak quality, and the addition of a green dimension constraint will inevitably affect the profitability of financial institutions in the short term, and the government must provide subsidies on fiscal taxation. In terms of the form of subsidy, it is suggested to cancel the direct subsidy for energy conservation and environmental protection enterprises financially and make them all supplement the commercial Banks with the credit interest discount, which can drive more funds into the field of environmental protection and transfer the responsibility of screening green projects to more professional commercial Banks, which is conducive to the effective operation of funds. Given the high financing risks of emerging green energy projects, the government can set up a green guarantee fund, which can mitigate the risks of rural financial institutions to a certain extent, and leverage a large amount of social funds to invest in green energy projects. The finance can also increase investment in rural environmental monitoring stations, ensure full coverage of rural county-level areas, and provide infrastructure for the green finance system to take root in rural areas.

4.6 Promote the participation mechanism of villagers in green finance

The ultimate goal of rural green finance is to protect the ecological and environmental rights of villagers, who are the most important stakeholders of environmental issues. Without the active participation of villagers, green finance lacks the soil for rural survival. With the active participation of villagers, a powerful pressure group will be formed on the polluting enterprises, which can greatly reduce the supervision cost of credit institutions. Affected by the long-term historical conditions, villagers generally lack the awareness of environmental protection, the township government must vigorously promote the national green environmental protection strategy, promote the application of new environmental protection technology in rural areas, strengthen the villagers' green concept. When the villagers have a preliminary awareness of environmental protection, they can set up an environmental protection autonomous committee at the grassroots level in the countryside to reflect relevant demands at any time and interact well with green financial institutions to jointly defuse environmental risks.

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