THE IMPACT OF LOW-CARBON EMISSION POLICIES ON RURAL SOCIAL GOVERNANCE UNDER THE CONCEPT OF GREEN LIFE

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ABSTRACT

As one of the important contents of the new development concept, the green development concept is an important guideline for the national development strategy. To promote social and economic stability in rural areas, realize low-carbon development in rural areas, and build a harmonious society between society and ecology. Based on the concept of green life, through SWOT analysis to explore the advantages and disadvantages of rural social governance, from the four aspects of economic development, social development, carbon emissions, and ecological environment, to construct an evaluation system for the impact of low-carbon emission policies on rural social governance. The hierarchical progressive relationship between the indicators, the weight of each indicator is calculated by the analytic hierarchy process, and the comprehensive evaluation value of the social governance effect of the research target in the past five years and the evaluation value of the secondary indicators are obtained. The obtained evaluation results show that the comprehensive evaluation value and the positive index values have increased by 0.056, 0.032, 0.0039, and 0.043, respectively, while the negative index value of the study area has decreased by 0.32. Development, carbon emissions, and the ecological environment have a greater positive promotion and positive impact.

KEYWORDS

Green life concept; Low carbon emission policy; Rural social governance; SWOT analysis; Analytic hierarchy process

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1. INTRODUCTION

Climate change is a common challenge faced by human society in the 21st century, and every country has an inescapable responsibility for controlling carbon dioxide emissions [1-2]. As a result, policies such as mandatory carbon emissions, carbon taxes, carbon trading, and carbon offsets have emerged and become the main measures to control carbon dioxide emissions [3-6]. The purpose of a low-carbon emission policy is that the construction and development of the social and economic system can achieve low-carbon emissions [7-8]. Low carbon emissions can be defined in different ways. One is to realize the common vision of human society, that is, to achieve the emission level under the global low-temperature target. Greenhouse gas emissions to achieve lower greenhouse gas emissions pathways [9-10]. The concept of low-carbon emissions proposed in the world refers to achieving lower greenhouse gas emissions at a certain time [11].

The low-carbon emission policy of the agricultural society is to avoid the use of pesticides, fertilizers, etc. to offset the emissions of livestock enteric fermentation, rice fields, biomass burning, and manure treatment, and reduce greenhouse gas emissions; characteristics of energy flow to avoid nitrous oxide and biogas emissions in cultivated or dry peatlands [12-15].

Rural social governance under the concept of green life is an innovative model, and its basic characteristics are overall development, interaction and high efficiency between industries, and comfortable and harmonious development of the social environment, to promote the sustainable development of rural society [16-19]. Its core is not to sacrifice agriculture and food, not to damage the ecology and the environment [20]. Taking farmers' interests as the starting point, realizing the integration of infrastructure and equalization of public services, promoting the steady development of rural society and economy, realizing a well-off life, and building a harmonious society [21-25].

Since the reform and opening up, the exploration of rural social governance has gradually attracted the attention of scholars at home and abroad. Reference [26] conducted in-depth semi-structured interviews with farmers, village cadres, and town managers, taking Sandu town in eastern China as an example. Then, a conceptual framework of integrated factors is proposed to analyze the driving factors and mechanisms of farmers' participation in rural MSW management. The results show that farmers' participation in environmental action is a response to an integrated network of internal and external factors. The inertia of life, the loss of personal interests, and objective conditions are obstacles to the peasants' decision to participate. And found that environmental awareness can improve farmers' internal motivation. The literature [27] guided by the five pillars of eco-design theory and economic development, using a circular urban approach, outlines the concept of urban planning and architectural flagship projects that highlight the image, culture, and heritage of communities, as well as strategies to improve markets. Through decentralized governance and reimagined priorities, Batibo has the opportunity to be

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a prototype and a model for a quality future for sustainable rural development in Cameroon. Literature [28] reviewed and synthesized extensive spatial studies of oligotrophic mountain streams in rural southern Appalachian Mountains and concluded that, despite higher forest retention rates, rural land-use activity is driven by altered and predominantly enhanced landscapes - Stream connections significantly reduce water quality. Rural water quality problems can be greatly alleviated through well-known best management practices, which raises the question of socio-ecological governance using best management practices. Reference [29] uses a key multi-level, multi-scale management model to illustrate the entire process. The author's project role involves developing local community management skills while protecting social welfare and environmental health. And process results are analyzed to facilitate local and larger regional impact. Transformative environmental governance solutions actively address potential challenges while fully recognizing feasible thresholds of vulnerability conditions, thereby promoting more comprehensive social engagement and local empowerment. Reference [30] uses the multi-model comparison and regression optimization techniques of spatiotemporal analysis of rural civil bulk coal governance consumption to analyze provincial panel data and examines the time effect and spatial spillover effect of consumption to solve governance problems. The results show that the governance of rural credit cooperatives should adhere to the principle of inter-provincial coordination, determine the governance policy based on the conditions within the province, establish a subsidy mechanism, use resource competition to guide the changes in rural credit cooperatives and coordinate with urbanization. In short, scholars have paid more and more attention to the governance of rural society, and their research has yielded fruitful results. However, the governance of rural society should not only be realized through the above aspects, but requires every villager to be aware of their responsibilities and obligations to nature, reflect on the existing way of life, implement it based on action, and choose a green way of life to promote the harmonious development of human and nature.

The proposal of the concept of green life indicates that we will pay more attention to the issue of green life, adhere to the guidance of the concept of green, and implement it in all aspects of social life. Therefore, according to the SWOT status analysis results of rural social governance under the concept of green life, this paper constructs an evaluation model for the impact of low-carbon emission policies on rural social governance. The impact of emission policies on rural social governance, to actively comply with the realistic trend of rural social governance under the concept of green life, improve and innovate rural social governance methods, strengthen rural residents' green and low-carbon awareness, and upgrade the original single governance of rural society to the level of low-carbon social governance, and constantly improve the rural social governance system.

2. SWOT ANALYSIS OF RURAL SOCIAL GOVERNANCE BASED ON THE CONCEPT OF GREEN LIFE

Table 1. SWOT analysis of rural social governance under the concept of green life

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Analytical Metrics	Analysis results
Advantage	Economic foundation with low carbon development
	A wide range of low carbon forms and technologies exist
	Energy-saving and emission reduction have relative cost advantages
	Carbon sinks and biomass resources are abundant
Disadvantage	Decentralized operation hinders the promotion of low-carbon technologies
	Lock-in effect of "high carbon" development
	The construction of agricultural and rural environmental protection systems is blank
	Poor quality of agricultural workers
	Lack of funds for low-carbon agricultural development
Opportunities	Politically attached great importance to
	The initial establishment of an international carbon trading market
	The world energy crisis calls for the development of low carbon
	The academic research boom has promoted low carbonization
Threats	The overall technology research and development capacity is limited
	Food security has a major impact
	International pressure to reduce emissions
	An international emission reduction sharing mechanism has not yet been formed

The SWOT analysis method was first proposed by a management professor at the University of San Francisco in the early 1980s. Although some people have mentioned internal strengths and weaknesses, external opportunities and threats, these changing factors, are the contribution of the SWOT method. It lies in the creative use of systems thinking to comprehensively analyze these factors [31]. The so-called SWOT analysis method is to list various main internal strengths and weaknesses, external opportunities, and threats closely related to the research object through investigation and then uses the idea of systematic analysis to match various factors to analyze, this leads to a series of corresponding strategies [32]. It was originally intended to provide a scientific basis for corporate strategic decisions, but due to its simplicity and clarity, the analysis method has been widely used in related research in other fields in recent years [33]. As an important part of developing low-carbon rural areas and the concept of green life, rural social governance under low-carbon emission policies provides an opportunity for rural areas to achieve leapfrog development [34]. Through SWOT analysis, we can clarify the advantages and disadvantages of rural social governance, grasp external opportunities, and actively prevent possible threats and risks, which is conducive to clarifying the strategic direction of rural social governance and formulating scientific, reasonable, and

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effective governance countermeasures. Taking a rural area as the research target, the SWOT analysis results from the concept of green life are shown in Table 1.

2.1. ADVANTAGES

1. Economic foundation for low-carbon development: the implementation of relevant policies has led to the continuous increase of farmers' income, the steady increase of agricultural comprehensive productivity, the continuous optimization of agricultural internal structure and planting structure, and the continuous improvement of policy support and scientific and technological innovation system. Carbon countryside provides a certain economic foundation.

2. Extensive low-carbon forms and technologies: for the study area, low-carbon agricultural forms and technologies already exist. The main modes are conservation-oriented agriculture; high-efficiency agriculture; pollution-free agriculture; recycling mode of planting and breeding waste; rural clean energy; tourism and leisure agriculture.

3. Energy conservation and emission reduction have relative cost advantages: affected by economic conditions, the low level of investment in productive fixed assets in rural households limits the use of advanced technology and efficient agricultural equipment and aggravates the current situation of high energy consumption and low energy efficiency in rural production and life. This status quo means that its energy utilization has a large room for improvement, the cost of energy conservation and emission reduction is relatively low, and the implementation of low-carbon emission policies and the construction of low-carbon rural areas have certain relative cost advantages.

4. Carbon sinks and biomass resources are abundant: reasonable production behaviors such as returning farmland to forests, afforestation, land erosion control, organic matter remediation, soil fertility restoration, improving feed technology, and improving the production efficiency of pastures in the research area are conducive to the absorption, fixation, and transfer of carbon dioxide, and play a role in "reducing sources and increasing sinks" for agricultural and rural carbon emissions.

2.2. DISADVANTAGES

1. Decentralized operation hinders the promotion of low-carbon emission policies: the decentralized farmers' production and business model is the main reason for the lack of investment in agricultural production in China and the lack of stamina for rural economic development. By 2020, only 46.13% of farmers will participate in industrial operations, and the proportion of dairy cattle and pig breeding will only be 16.47% and 28.43%, which will seriously restrict the development of a low-carbon agricultural society.

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2. Lock-in effect of "high-carbon" development mode: the natural development of rural society makes the development cognitive lock-in effect obvious, and the acceptance period of new technologies and new ideas in rural areas is long.

3. Environmental protection system construction gap: there is no special rural environmental protection law, although some laws and regulations are involved in low-carbon rural social governance, the operability is poor, the applicability is not strong, and detailed management regulations and environmental protection infrastructure construction are even fewer, and there are only 3 or 5 centralized rural sewage treatment stations and garbage treatment stations.

4. Low quality of agricultural practitioners: the development of agricultural mechanization has released a large number of the rural labor force, and the transfer of rural surplus labor has caused problems such as rural hollowing, agricultural concurrent employment, women's aging, and aging. Among the agricultural technicians in this region, 56.49% have only primary titles, and only 3.8% have a high school or above.

5. Lack of funds for low-carbon agricultural development: in recent years, the proportion of fiscal support to agriculture in total fiscal expenditure has only increased from 6.49% to 10.24%. Under the influence of factors that tend to profit, the idle funds in the vast rural areas have flowed to urban areas with high returns, and farmers' passive investment in agricultural production and financial support for agriculture is limited, resulting in a lack of funds for agricultural development.

2.3. OPPORTUNITIES

1. High attention at the political level: the affirmation of the green role of agriculture by some international organizations has strengthened the emphasis on the implementation of low-carbon emission policies at the rural political level. In the technology and planning for strengthening energy conservation and emission reduction in agriculture and rural areas, it is required that the penetration rate of biogas suitable for farmers and the comprehensive utilization rate of crop stalks should reach 55% and 85% respectively.

2. Preliminary establishment of carbon trading market: the natural carbon sink effect of the agricultural system can offset part of carbon emissions and promote the smooth transition of rural society. In addition, carbon trading will bring more projects to provide technical and financial support for the implementation of low-carbon emission policies.

3. The energy crisis requires the implementation of low-carbon emission policies: agriculture is the only field that produces biomass. Therefore, developing low-carbon emission policies, especially improving the comprehensive utilization

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rate of rural biomass resources, can alleviate the energy crisis to a certain extent.

4. The academic research boom promotes the development of low-carbon emissions: the establishment of various research institutions and the conduct of seminars are not only conducive to the implementation of rural low-carbon emissions policies but also provide conditions for active participation and introduction of international low-carbon cooperation projects. Corresponding technical and financial support was provided for rural social governance.

2.4. THREATS

1. The overall technology research and development capacity is limited: actions to address climate change will make human society step into a low-carbon society after experiencing an agricultural society, an industrial society, and an information society, and a series of technological innovation activities will also be carried out. The policy will become an important part of comprehensive national strength.

2. The impact of food security is significant: the population pressure in the study area is high and the contradiction between man and land is serious. The traditional concept of food security encourages the development of chemical agriculture to a certain extent and hinders the development of low-carbon agriculture.

3. Great pressure on emission reduction: this region is at the end of the industrial chain in the division of labor system, and the heavy industry using energy as raw materials accounts for a high proportion of the economy. The implementation of low-carbon emission policies will also limit the development of related high-emission industries and restrict the development of the local economy.

4. The emission reduction sharing mechanism has not yet been formed: greenhouse gas emissions are bounded, but the impact of emissions is not bounded. Emission reduction commitments are directly related to their interests, which makes it difficult to form emission reduction opinions.

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3. THE IMPACT EVALUATION SYSTEM OF LOW-CARBON EMISSION POLICIES ON RURAL SOCIAL GOVERNANCE

3.1. THE FRAMEWORK OF THE EVALUATION INDEX SYSTEM

Table 2 shows the comprehensive evaluation system framework for the impact of low-carbon emission policies on rural social governance.

The specific description of the three-level indicators is as follows:

1. Gross output value of agriculture, forestry, animal husbandry, and fishery: this indicator reflects the total scale and total results of agricultural production within a certain period.

2. The proportion of GDP of the primary industry to the total GDP (%): the ratio of agricultural output value to the three major industries, we can clearly understand the development of agriculture.

3. Farmers' per capita net income (yuan/person): this indicator refers to the annual per capita income of farmers in rural areas. The increase in income increases farmers' low-carbon awareness.

4. Agricultural mechanization level: this indicator is obtained by dividing the total power of rural machinery by the sown area of crops. It is the use of mechanical equipment to replace the labor of farmers, improve planting speed and efficiency, and bring higher economic benefits.

5. Agricultural product production price index: this index shows the price changes of production factors in agricultural production, and prices generally rise with time, so this index can reflect the impact of market price changes on low-carbon agriculture.

6. Agricultural commodity retail price index: this indicator shows the changes in the value of agricultural products and indirectly reflects the planting volume of agricultural products.

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Table 2. Evaluation index system

First-level indicator	Secondary indicators	Three-level indicator
A comprehensive evaluation of the impact of low carbon emission policies on rural social governance	Rural economic development	The gross output value of agriculture, forestry, animal husbandry and fishery
		The ratio of primary industry GDP to total GDP
		Average net income of rural residents
		Total power of agricultural machinery
		Producer Price Index of Agricultural Products
		Agricultural Commodity Retail Price Index
	Rural social development	Rural population
		The sown area of crops
		Engel's coefficient of rural residents
		The consumption level of rural residents
		Fiscal expenditure on agriculture, forestry and water affairs
		Rural electricity consumption
	Agricultural carbon emissions	Crop farming
		Forestry
		Animal husbandry
		Fishery
	Rural ecological environment	Forest cover rate
		Effective irrigation rate of farmland
		Local government environmental protection expenses
		Rural toilet penetration rate
		Total agricultural water use
		The number of harmless treatment plants

7. Rural population: this indicator refers to the number of permanent residents in the number of rural households. This indicator is mainly based on the household registration statistics of the public security department.

8. Sown area of crops: this indicator refers to the area of crops that are sown or transplanted each year. Crops that can be planted after restoration after a disaster are also included in this indicator.

9. Rural Engel's coefficient (%): this indicator refers to the proportion of farmers' food expenditure in the total consumption expenditure in that year.

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10. Consumption level of rural residents (yuan/person): this indicator can reflect the level of rural social development. The higher the level of development, the more low-carbon awareness, and low-carbon investment will be.

11. Fiscal expenditure on agriculture, forestry, and water affairs: to have international competitiveness for agriculture, depends to a large extent on the government's financial support for agriculture.

12. Rural electricity consumption: this indicator refers to the total electricity consumption of all enterprises, institutions, administrative units, and households in rural areas engaged in production and business activities, work, and daily life within the year, which plays an important role in rural social development.

13. Agricultural carbon emission: the carbon emission of the planting industry is mainly the input of agricultural production activities, including agricultural chemical fertilizers, pesticides, agricultural film, agricultural machinery, and diesel consumption. industry carbon emissions, etc.

14. Forestry carbon emission: this indicator specifically includes the carbon sequestration effect of forest land, shrub forest, sparse forest land, unforested afforestation land, slashed land, and nursery; carbon sequestration.

15. Animal husbandry carbon emissions: this indicator mainly selects the year-end slaughtering numbers of rural pigs, cattle, sheep, and poultry as the inspection indicators to represent the carbon emissions of animal husbandry.

16. Fishery carbon emissions: this indicator mainly includes carbon emissions from the use of fish farming materials, fishing boats, and measuring instruments.

17. Forest coverage rate (%): this indicator refers to the percentage of forest area in the total land area.

18. Effective irrigation coefficient of farmland (%): this indicator is calculated by calculating the ratio of the effective irrigation area of farmland to the total sown area.

19. Local government environmental protection expenses: this indicator refers to the expenses that the government takes on units and individuals that pollute, damage, and erode the environment to maintain, control, and protect the natural environment of human society.

20. Rural toilet penetration rate (%): refers to the ratio of the number of farmers using sanitary toilets to the total number of farmers, which plays an important role in improving the rural ecological environment.

21. Agricultural water consumption: this indicator refers to the total amount of water used for irrigation and livestock drinking in rural areas.

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22. Number of harmless treatment plants: the number of treatment plants that can make waste no longer pollute the environment and can be used, and turn waste into treasure, will play a good role in the treatment of agricultural waste.

3.2. AHP EMPOWERMENT

Based on the hierarchical progressive relationship between the indicators in the index system and the principle of determining the weight of the indicators according to the AHP method, the weights of the evaluation indicators of each layer in the target object are calculated [35]. The calculation process of index weights at each level is generally divided into the following five basic steps:

1. Build a progressive hierarchical structure model: by sorting out the previous research results, the evaluation index system of the rural social governance effect under the low-carbon emission policy is divided into three layers: A target layer, B criterion layer, and C indicator layer. There is an affiliation relationship between each evaluation index layer.

2. Constructing a pairwise judgment matrix: first, compare the judgment matrix of the evaluation indicators in each level concerning each index in the previous level, and for the indicators of the same level, according to the 1-9 scaling method. By comparing them in pairs, the relative attribute measurement value of the evaluation of rural social governance effects can be obtained [36]. As shown in the following formula:

$$A = \begin{bmatrix} a_{11} & a_{12} & \cdots & a_{1n} \\ a_{21} & a_{22} & \cdots & a_{2n} \\ \cdots & \cdots & \cdots & \cdots \\ a_{n1} & a_{n2} & \cdots & a_{nn} \end{bmatrix} \quad (1)$$

The comparison matrix $A, A = \{a_{ij}\}$ can be obtained according to the relative attribute measurement value of the index. The conditions that the matrix A should meet are:

$$a_{ij} > 0, a_{ij} = \frac{1}{a_{ji}}, a_{ij} = 1 \quad (2)$$

3. Calculation of weights: calculate the product of each row in the judgment matrix A:

$$M_i = \prod_{j=1}^{n} a_{ij}, i = 1,2,\cdots,n \quad (3)$$

Compute the n-root $\overline{W_i}$ of M_i:

$$\bar{W}_i = \sqrt[n]{M_i}, i = 1,2,\cdots,n \quad (4)$$

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Where n is the order of the matrix.

Normalize vector group $\left(\overline{W_1}, \overline{W_2}, \cdots, \overline{W_n}\right)^T$:

$$W_i = \bar{W}_i / \sum_{i=1}^{n} \bar{W}_i \tag{5}$$

Then $W = \left(W_1, W_2, \cdots, W_n\right)^T$ is the eigenvector, that is, the weight of the rural social governance indicator under the low-carbon emission policy.

Compute the largest eigenvalue of the judgment matrix :

$$\lambda_{\max} = \frac{1}{n} \sum_{i=1}^{n} \frac{(AW)_i}{W_i} \tag{6}$$

Through the formal expression and quantitative processing of subjective judgment, AHP can effectively eliminate human subjectivity and objectively describe and evaluate things. The objectivity of AHP evaluation results depends on whether the objective components of the evaluation object are sufficient and reasonable. Given the subjective consciousness of decision-makers and the complexity of the evaluation object itself, the consistency test of the judgment matrix has become a key link. The process is as follows:

4. Extract the consistency index of the judgment matrix:

$$CI = \frac{1}{n-1}\left(\lambda_{\max} - n\right) \tag{7}$$

Among them, $\lambda_{\max}$ is the largest eigenvalue, and n is the order of the matrix.

5. Calculate whether the fuzzy judgment matrices of different orders satisfy the consistency test by adding the average random consistency test index RI. To judge whether the corresponding matrix satisfies the consistency condition, this paper uses the consistency ratio CR to make the corresponding judgment [37].

$$CR = \frac{CI}{RI} \tag{8}$$

When the order of the judgment matrix is $n \geq 3$, if it is $CR < 0.1$, the judgment matrix passes the consistency test; otherwise, if it is $CR \geq 0.1$, the judgment matrix needs to be adjusted to reach $CR < 0.1$. If $CR = 0$, it is completely consistent.

4. RESULTS AND ANALYSIS

Combined with the weights of indicators at all levels, after implementing the low-carbon emission policy under the concept of green life, the comprehensive evaluation

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value of the social governance effect of the research target in the past five years and the indicator values of rural economic development, social development, carbon emission, and ecological environment are calculated, such as Figure 1 and Figure 2.

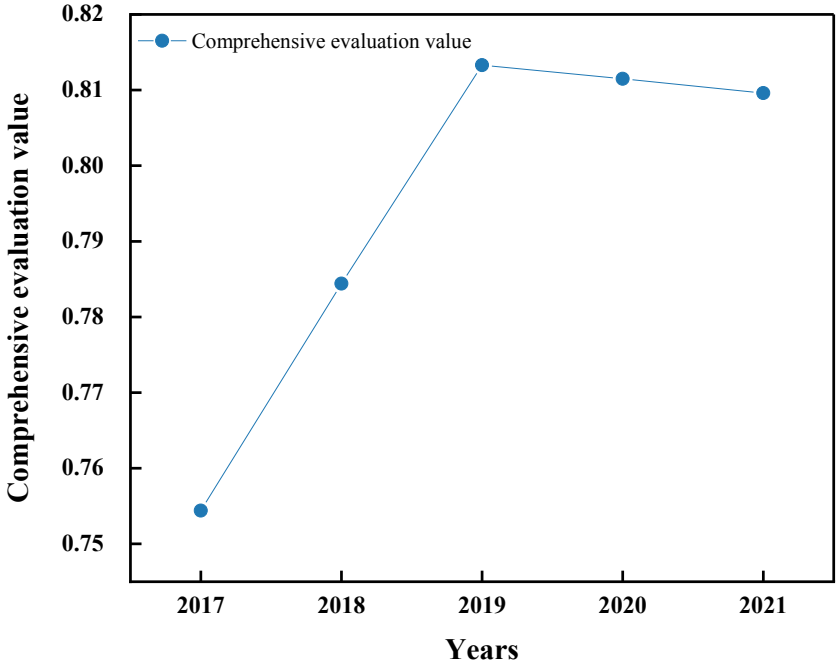

Figure 1. Schematic diagram of the comprehensive evaluation value of social governance effect

According to the comprehensive evaluation value of the rural social governance effect in the study area in Figure 1, it can be found that the evaluation value of the governance effect before 2019 has increased significantly, although the social governance level in the region has shown a downward trend after 2019, but the decline is small, that is to say, although the rural area in order to pursue high-standard economic development, agricultural investment is increasing, resulting in a small increase in carbon emissions, but after the implementation of the low carbon emission policy under the concept of green life, the rural area has adopted the treatment of returning farmland to forest, afforestation and land erosion reasonable production behaviors such as organic matter remediation, soil fertility remediation, improving feed technology, and improving the production efficiency of pastures are conducive to the absorption, fixation and transfer of carbon dioxide, and play a role in "reducing sources and increasing sinks" in agricultural and rural carbon emissions, so that the progress of social governance level effectively controls the degree of carbon emissions in agriculture to a certain extent, so the downward trend of comprehensive evaluation value after 2019 is insignificant compared with the upward trend.

To specifically analyze the problems existing in social governance under the low-carbon emission policy, the evaluation values of social governance effects were calculated for each index of economic development, social development, carbon

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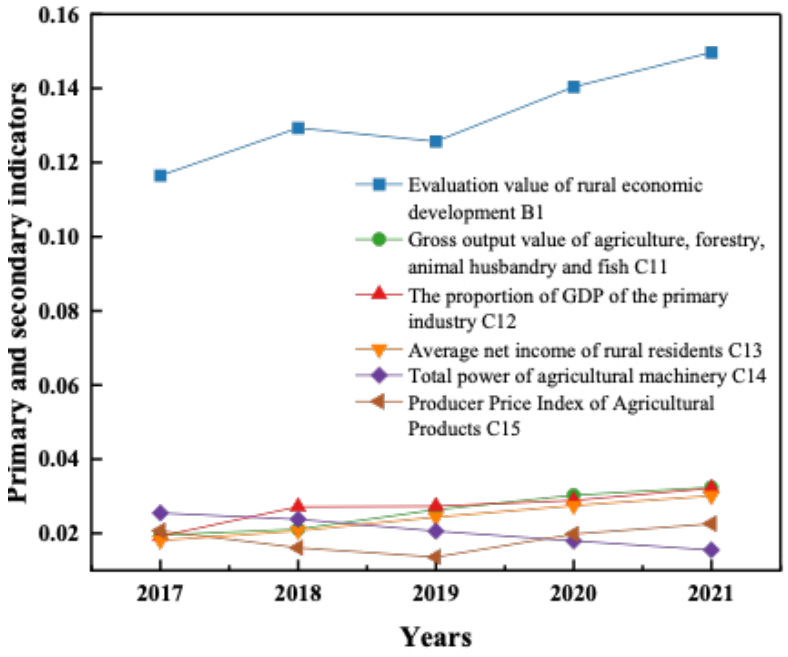
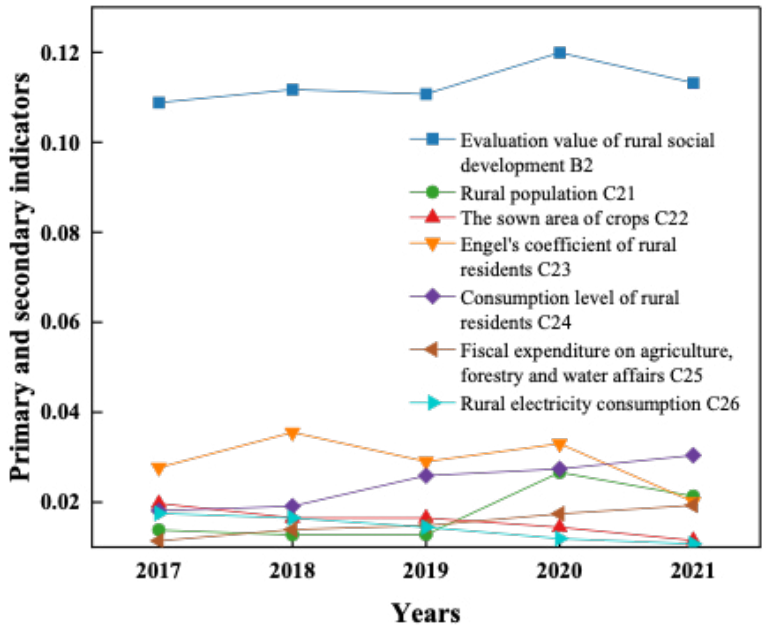
emission, and ecological environment, respectively. In this way, the influencing factors of low-carbon emission policies on rural social governance can be obtained, so that the most effective governance suggestions can be put forward in the follow-up. The obtained evaluation index values are shown in Figure 2.



(a) rural economic development index value



(b) rural social development index value

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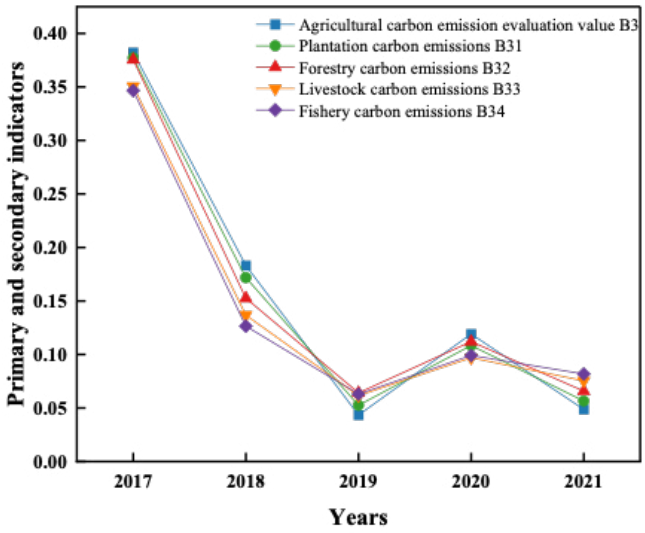
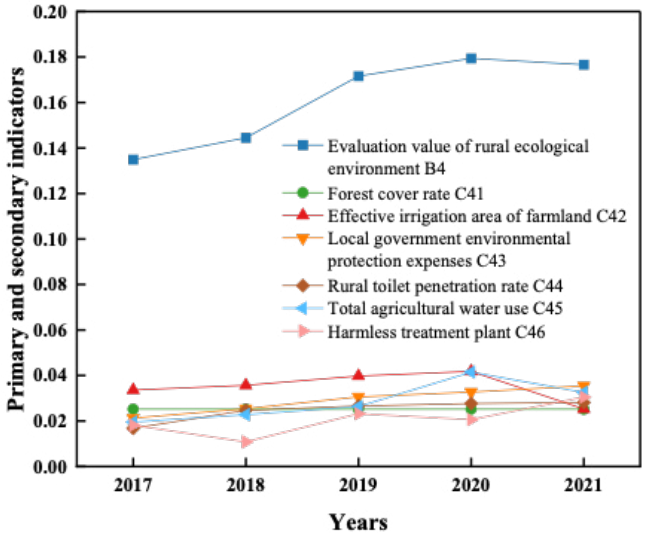


(c) agricultural carbon emission index value



(d) rural ecological environment index value

Figure 2. Evaluation of the effect of rural social governance under low-carbon emission policies

The calculation results of the rural economic development index values in Figure 2(a) show that in terms of economic development in this rural area, the secondary indicators have the highest evaluation values in 2021, mainly because the following three indicators have higher evaluation values: the total output value of agriculture, forestry, animal husbandry and fishery, the proportion of the GDP of the primary industry to the total GDP, and the average net income of rural residents. Among them, the total output value of agriculture, forestry, animal husbandry, and fishery in the countryside is the sum of the output value and the value of by-products. With the

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vigorous implementation of the low carbon emission policy, with low-carbon concepts and technological transformation and innovation of rural production and lifestyle, through the adoption of increased publicity, the implementation of technological transformation, economic interest guidance and the establishment of supervision mechanisms and other corresponding measures to break the cognitive, technical lock-in effect, under the leadership's attention and macro-level policy support and other related political measures, change the political lock-in effect, improve the requirements of low-carbon rural areas, and promote the governance and development of a low-carbon society, The evaluation value of the total output value of agriculture, forestry, animal husbandry, and fishery has gradually increased from 0.02 in 2017 to 0.0358 in 2021. Although the primary industry in the research area occupies an important weight, the proportion of primary industry GDP to total GDP in 2021 is the highest, as high as 0.0358, which is mainly caused by the slow development of the secondary industry and the tertiary industry in the old industrial base in recent years, and the agricultural development is relatively normal in comparison. With the implementation of the low carbon emission policy, the average net income of the people is increasing, and in 2021 to reach a maximum of 0.0351, the economy continues to develop, and the investment in low-carbon environmental protection will increase, indirectly reducing agricultural carbon emissions, for the rural area is only a microcosm of the increase in national income. The rising trend of rural economic development evaluation values in the past five years shows that low carbon emission policies have a greater role in promoting rural social governance, and through simple technical treatment, the agricultural system returns some wastes and biological resources to agricultural production and life in the form of organic matter and energy. It not only reduces the waste of guanidine hydrochloride, improves soil organic matter, and increases the production of clean energy in rural areas, but also increases farmers' incomes from multiple channels and promotes the sustainable development of a low-carbon economy in agriculture and rural areas. The more developed the rural economy, the more it can drive the development of low-carbon emission policies, and the higher the requirements for rural social governance. The economic development index continued to rise after it was at a low level of development. On the whole, the agricultural economic development index of the study area continued to rise, which was the most favorable factor to promote the level of social governance in the countryside.

Figure 2(b) shows the calculation result of the social development index value of the village. It can be seen that in terms of social development, the evaluation value moves forward in a wave-like manner with the advancement of the low-carbon emission policy, and the evaluation value in 2020 is the highest at 0.121. This is mainly because all aspects of society are constantly developing, and rural society is keeping pace with the times and making continuous progress. Under the low-carbon emission policy, the quality of rural employees has gradually increased, the number of agricultural technicians has gradually increased, and the system of agricultural technology extension stations has been continuously upgraded, all of which have promoted rural social governance and economic development. The high quality of

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relevant practitioners enables farmers to gradually form a low-carbon awareness, actively participate in low-carbon production and life, and further increase the depth and intensity of rural social governance. Due to the low carbon emission policy to expand the rural capital investment in related aspects, and under the general attention of the academic community, various research institutions have been established, various seminars have been held, and low-carbon cooperation projects have been carried out, which have provided relevant theoretical, technical and financial support for rural social governance, and increased the government's investment and attention to agriculture, forestry and water affairs, and finally, as a result, the consumption level of rural residents increased from 0.178 in 2017 to 0.031 in 2021, so that the evaluation value of the financial expenditure on agriculture, forestry, and water affairs also increased year by year. However, to obtain a higher level of the agricultural economy, the sown area of crops has increased year by year, resulting in a decrease in the evaluation value of the sown area of crops from 2017 to 2021, and agricultural carbon emissions will also increase every year. The evaluation value of rural electricity consumption is declining year by year. Although the low-carbon emission policy has a certain effect on the governance of rural society, social progress has also led to an increase in energy consumption, which increases electricity consumption and carbon emissions.

The calculation result of the agricultural carbon emission index value is shown in Figure 2(c). In terms of agricultural carbon emissions, the evaluation results of this village have different scores for small-scale agriculture. Due to the low carbon emission policy by emphasizing the non-excessive use of machinery, fertilizers, pesticides, and agricultural film, efforts to control carbon emissions in the planting and animal husbandry industries, effectively alleviate the high carbon emission situation, expand the forestry coverage, gradually enhance the carbon sequestration capacity, so that carbon emissions are relatively reduced, and the development of fisheries is encouraged under geographical restrictions, so that the evaluation value of agricultural carbon emission indicators has decreased year by year, and has decreased by 0.32 in the past five years.

Figure 2(d) shows the calculation results of the ecological environment index values in the study area. As can be seen from the trend of the curve in the figure, the ecological environment evaluation value of the rural area is generally increasing year by year, and it will decrease slightly in 2021, indicating that the ecological environment has been paid more and more attention, and the investment has also increased year by year, resulting in a decrease in carbon emissions and low carbon emissions. The level of governance of rural society by emission policies is getting higher and higher. From 2017 to 2021, the evaluation value of the rural ecological environment will first rise and then decline, and the evaluation value will be the largest in 2020. Since the study area is dominated by mountains, the forest coverage has not changed much in the past five years. The low-carbon emission policy enhances the drought resistance of farmland by requiring complete water conservancy facilities, so that it can maximize the use of land under the specified environment, resulting in a higher score for the

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effective irrigation area of farmland. Various research institutions in academia have been established successively, various seminars have been held successively, and low-carbon cooperation projects have been carried out successively, which has provided good financial support for the increase of local financial environmental protection expenses, so that the trend of its evaluation value in the past five years has been consistent uptrend, rising from 0.0208 to 0.0362. The evaluation values of the two indicators of rural toilet penetration and total agricultural water use are increasing with the promotion of low carbon emission policies, indicating that the research area has turned the advantages of its development into actual economic advantages through the implementation of low-carbon emission policies, and continuously strengthened this positive cycle, to improve the self-development ability of the rural economic system, achieve the leapfrog development of low-carbon rural areas, and continuously improve the level of social governance in the countryside from the perspective of environmental protection. And under the condition of limited R&D capacity, by focusing on the research and development of selected technologies, from the perspective of national strategy, the research and development of low-carbon technologies, to improve the independent innovation capacity of core technologies, and making full use of the natural spillover effects of commercial technology trade and technology to continuously improve scientific research. Therefore, the construction of harmless treatment plants has increased, and the evaluation index value of the number of harmless treatment plants has shown a positive upward trend, reaching a maximum value of 0.0321 in 2021.

5. DISCUSSION

Rural areas are an important part of the economy and society. For a long time, due to the inclination of national policies at the macro level, the rural economy has been impoverished and weak, which has become an obstacle to the further development of the economy and society. Under the background of the concept of green life and low-carbon emission policies, it is of great significance to study how rural areas can get out of the "high-carbon" development dilemma, improve their self-development capabilities, and achieve leapfrog development. The downsides are:

1. Due to the insufficient collection of some data, the relevant data on rural social governance are not fully grasped.

2. The personal understanding of low-carbon emission policies is not deep enough, the research on rural areas is not enough, and the impact of low-carbon emission policies on rural social governance is not deep and comprehensive enough.

3. Due to limited capacity, there are many deficiencies in the understanding of rural social governance issues. The opinions and suggestions are not yet mature and need to be further expanded and supplemented in the next step.

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6. CONCLUSION

The concept of green life reveals the harmonious symbiosis between man and nature and points out a new path to realizing the coexistence of development and protection of ecology. Rural areas are the basic unit of society. Driven by low-carbon emission policies, rural society has begun to gradually transition to low-carbonization. Therefore, this paper takes the concept of green life as the core and uses SWOT analysis to clarify the advantages and disadvantages of rural social governance. The weight of the evaluation indicators at each level of the evaluation system for the impact of low-carbon emission policies on rural social governance is determined by the method, and through the comprehensive evaluation value of the social governance effect in the past five years and the development trend of the indicator values of rural economic development, social development, carbon emission, and ecological environment. The following conclusions are drawn:

1. By adopting reasonable production behaviors such as returning farmland to forests, afforestation, land erosion control, organic matter restoration, soil fertility restoration, improvement of feed technology, and improvement of pasture production efficiency, it is beneficial to the absorption, fixation, and transfer of carbon dioxide, which is beneficial to agricultural and rural areas. Carbon emissions play the role of "reducing sources and increasing sinks", strengthening the level of social governance to effectively control the degree of agricultural carbon emissions, and increasing the comprehensive evaluation value of rural social governance effects from 0.754 in 2017 to 0.81 in 2021.

2. Use low-carbon concepts and technologies to transform and innovate rural production and lifestyles, and break the cognitive and technical lock-in effects by taking corresponding measures such as increasing publicity, implementing technological transformation, guiding economic interests, establishing supervision mechanisms, etc. Under the leadership's attention and macro-level policy support and other relevant political measures, change the political lock-in effect, improve the low-carbon requirements in rural areas, promote the governance and development of a low-carbon society, and make some waste and biological resources as organic substances and energy. In the form of returning to agricultural production and life, reducing guanidine hydrochloride in waste, improving soil organic matter, and increasing the production of clean energy in rural areas. It also increases farmers' income through multiple channels, promotes the sustainable development of agricultural and rural low-carbon economies, and continuously increases the value of the rural economic development index from 0.118 to 0.15.

3. The low-carbon emission policy has expanded rural investment in related aspects, and under the general attention of the academic community, various research institutions have been established successively, various seminars have been held successively, and low-carbon cooperation projects have been carried out one after another. Social governance provides relevant theoretical,

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technical, and financial support, increases the government's investment and emphasis on agriculture, forestry, and water affairs, and greatly increases the value of rural social development indicators, reaching the highest value in 2020 at 0.121.

4. By emphasizing that machinery, chemical fertilizers, pesticides, and agricultural films should not be used excessively, efforts should be made to control carbon emissions from planting and animal husbandry, effectively alleviate high carbon emissions, expand forestry coverage, and gradually enhance carbon sequestration capabilities. The emission is relatively reduced, and the development of fishery is encouraged under geographical restrictions, which reduces the evaluation value of the rural carbon emission by 0.32.

5. The low-carbon emission policy requires complete water conservancy facilities, enhances the drought resistance of farmland, maximizes the use of land under the specified environment, and provides good financial support for the increase of local fiscal environmental protection expenses. By turning the advantages of its development into real economic advantages, it can improve the self-development ability of the rural economic system and realize the leap-forward development of low-carbon rural areas. The ecological environment index value of the study area has increased by 0.043 within five years.

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