Analysis of the Legal Protection System for Ecological Agriculture Based on Big Data Mining Algorithms

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Abstract

In order to improve the ecological agriculture legal protection system, this paper analyzes the agricultural legal data mining from the perspective of big data, and improves the traditional data mining algorithm to make it as an intelligent algorithm that can be applied to the ecological agriculture law. Moreover, this paper combines the actual needs of ecological agriculture legal service objects to construct an intelligent legal service system applicable to ecological agriculture laws, and combines the crawler system to conduct data mining to obtain the ecological agriculture legal protection system model based on big data technology. In addition, after constructing the model, this paper analyzes the performance of each functional module, and uses the model constructed in this paper to analyze the current situation of our country's ecological agricultural legal compensation mechanism, and summarizes the problems and proposes several countermeasures. From the research point of view, it can be seen that the method proposed in this paper has a certain effect in the analysis of the ecological agricultural legal compensation mechanism.

Keywords: Big data; ecological agriculture; legal guarantee; system construction

1. INTRODUCTION

With the increasingly warming global climate, the relationship between human survival and development and environmental protection has received more and more attention and attention from countries. In order to seek a balance between human development and environmental protection, the development concept of low-carbon economy is proposed. Low-carbon agriculture is proposed for extensive agriculture, and it is the application and promotion of low-carbon economic concepts in agricultural economic development. Moreover, it is one of the important means to realize the construction of ecological civilization, and it is also a strategic way to deal with the game of international climate change [1].

Agriculture is the basic industry of China's national economy, and ensuring sufficient food supplies to meet the continued growth of the population in the next few decades is still an arduous task for my country's agriculture [2]. The research on the development of low-carbon agriculture in the construction of ecological civilization aims to clarify how to respond to international climate change and achieve sustainable development under the guidance of the wisdom of the harmonious development of man and nature. In short, the core content of ecological civilization is the progress of the harmonious relationship between man and nature. In addition, low-carbon agriculture discusses how to achieve the dual goals of climate change and sustainable agricultural development in the harmony between man and nature [3].

Agriculture not only depends on the natural ecosystem, but also has a significant impact on the natural ecosystem. Therefore, low-carbon agriculture is an important foundation for the realization of ecological civilization and an important part of the construction of ecological civilization. The development of low-carbon agriculture in harmony between man and nature is to establish agricultural development on the basis of sustainable agricultural development that protects natural resources and the ecological environment, realizes material recycling, and low-carbon emissions. Therefore, we need to change the extensive agricultural development method through policy and system innovation, and promote the development of low-carbon agriculture through intensive agricultural development. At the same time, we must optimize the allocation of agricultural and rural resources, and achieve low-carbon development of agriculture in the development of multi-functional agriculture. In practice, the mission of developing low-carbon agriculture under the requirements of ecological civilization has also given China's agriculture a broader development space and potential. Under the dual background of the game of climate change and the construction of ecological civilization, low-carbon agriculture is the road to sustainable development of China's agriculture. As a large agricultural country, China is one of the countries

most affected by climate change. In building an ecological civilization and coping with global climate change, achieving low-carbon agricultural transformation is an inevitable trend for sustainable agricultural development. Therefore, it is necessary to analyze the current situation and existing problems of my country's low-carbon agricultural development based on the analysis and discussion of the path, model and development mechanism of my country's low-carbon agricultural development strategy, and promote the sustainable development of my country's agriculture.

It is necessary to coordinate the development of low-carbon agriculture in the construction of ecological civilization, an agricultural issue involving a multidisciplinary background, under the perspective of legal research. Through combing the theories of global governance, international relations, sustainable development and agricultural risk protection rights, it provides theoretical reference for the development of my country's low-carbon agriculture in the construction of ecological civilization. Moreover, it is necessary to carry out theoretical innovations at the level of legislation, policies, and market mechanisms for low-carbon agricultural development, and to develop, upgrade and make breakthroughs in the current theoretical system of low-carbon agricultural development. The second is practical significance. This study strives to grasp the status quo of my country's low-carbon agriculture development in a timely manner through empirical research, and to clarify the legal issues that exist in it. Moreover, on this basis, this paper conducts in-depth analysis and excavation of the legal system, policy system, guarantee mechanism, and technical standard system for the development of low-carbon agriculture. The purpose is to provide a reference for relevant legislation or macro decision-making, and to promote the transformation of my country's agriculture from "high carbon" to "low carbon", to promote the realization of the goal of ecological civilization construction, and to help my country be in an advantageous position in the international climate change game.

This article combines big data technology to conduct ecological agricultural legal data mining, finds problems, and puts forward corresponding opinions on the improvement of legal mechanisms.

2.RELATED WORK

Ecological civilization is a basic cultural form based on the harmonious coexistence of people and the common prosperity of people and nature, and it advocates a comprehensive, sustainable, and mutually beneficial development concept [4]. Human society will move from an industrial civilization characterized by high carbon to an era of ecological civilization dominated by a low-carbon economy and a low-carbon society [5]. In order to cope with global climate change, the vigorous development of low-carbon agriculture is the inherent requirement of ecological civilization [6]. Some scholars believe that the climate change game has gradually transformed from a simple scientific understanding problem to a problem of political will, and then rises to a problem of economic interests, which covers the entire content of the environment but has far exceeded its basic scope [7]. The climate change game is not only a competition between the economic, political, and environmental interests of developed countries and developing countries, but also a contest between the two camps [8]. Climate change negotiations are not only to protect the global climate and environment, but also a major game between countries in economic, energy, environment, and diplomacy [9].

At present, the concept of low-carbon agriculture is not unified. Some scholars believe that low-carbon agriculture is a brand-new green agricultural economy based on low energy consumption, low pollution, and low emissions, and it is an ecologically high-value agricultural model [10]. Low-carbon agriculture is the promotion and application of the concept of low-carbon economy in the development of agricultural economy. Its purpose is to protect the ecological environment and respond to global climate change. Moreover, it uses various agricultural low-carbon technologies as a means to reduce greenhouse gas emissions to improve the status quo of global climate change, thereby creating a mutually beneficial win-win situation for agricultural economy and ecological environmental protection [11].

The weak nature of agriculture determines that the development of low-carbon agriculture must have national and government policies to ensure its implementation. At this stage, my country's support for the development of low-carbon agriculture is still relatively weak and insufficient, which makes it difficult for companies to invest in low-carbon agriculture development, and it is difficult to overcome the negative externalities of low-carbon agriculture [12]. The government should play a leading role in promoting the development of low-carbon

agriculture. Therefore, the government needs to actively promote low-carbon agricultural products, form a price protection mechanism for low-carbon agricultural products, and guide the public's consumption behavior to form a long-term induction mechanism for the consumption of low-carbon agricultural products [13]. The development of low-carbon agriculture requires comprehensive utilization of various methods such as system, economy, and management. Moreover, it is necessary to proceed from the basic requirements of its development to realize the promotion and guidance of low-carbon agriculture by policy measures such as finance and taxation, and establish a comprehensive and multi-level institutional guarantee mechanism [14].

At present, the investment in low-carbon agriculture in agricultural fiscal expenditure is obviously insufficient, and the development of low-carbon agriculture lacks stamina [15]. The development of low-carbon agriculture is inseparable from government financial support. At the same time, it should broaden its investment and financing channels, introduce a market mechanism in the development of low-carbon agriculture, attract social funds to low-carbon agriculture, and actively guide social forces to develop low-carbon agricultural technology [16]. In addition, financial institutions need to be guided to increase the proportion and scale of funds supporting low-carbon agricultural development, innovate service models, and increase financial products to better support the development of low-carbon agriculture [17].

Some scholars believe that it is necessary to continue to promote the innovation of low-carbon agricultural technology, and strengthen the research, development, popularization and application of a low-carbon agricultural technology innovation system based on new breeding technologies, the development of renewable energy, the reuse of agricultural production waste, and the trial of multiple models of three-dimensional agriculture [18]. To develop low-carbon agriculture, it is necessary to transform and upgrade low-carbon agricultural technology through scientific and technological breakthroughs [19]. The promotion and popularization of low-carbon agriculture should first rely on various agricultural low-carbon technical talents. Therefore, a professional team should be established to shoulder the important task of the promotion and application of such technologies while developing low-carbon agricultural technologies. At the same time, it is necessary to strengthen the low-carbon understanding of agricultural production and operation entities, and establish a talent cultivation mechanism that is compatible with the development of low-carbon agriculture [20].

Reducing greenhouse gas emissions and achieving the carbon balance of the agricultural ecosystem depends on the establishment of a scientific and stable agricultural carbon budget management system [21]. Compared with other ecosystems, agricultural ecosystems have higher carbon sequestration capacity and strong plasticity. For this reason, agricultural low-carbon technologies can be used to reduce greenhouse gas emissions [22]. The developed countries represented by the United States are currently implementing or considering policies and measures to reduce agricultural greenhouse gas emissions in six categories: formulating and implementing agricultural greenhouse gas emission standards, subsidizing the production or use of greenhouse gas emission reduction energy, levying carbon taxes, formulating and implements the emission quota and trade system (CT system), and providing public financial support for related research and technology promotion [23].

3. MINING ALGORITHM OF AGRICULTURAL ECOLOGICAL LEGAL DATA

According to the CAPM model, the relationship between the social return R_p of agricultural laws and the market return R_m can be expressed as:

$$R_p = \alpha_p + \beta \cdot R_m + \varepsilon_t \quad (1)$$

Among them, β is the correlation coefficient between model return R_p and market return R_m, which represents the sensitivity of model return to market return fluctuations. The calculation formula of β is as follows:

$$\beta = \frac{Cov(R_p, R_m)}{Var(R_m)} \quad (2)$$

Therefore, for a unit of agricultural law and social effect combination, the income that can be obtained by short selling unit β_p is α. According to this operation, the overall β value of the model is close to 0, and the income of the agricultural law model will be significantly reduced by the impact of market fluctuations.

From the above meaning, if the total value of the agricultural economy is S, when the market falls by X, the loss Loss is:

$$Loss = \beta * X * S \quad (3)$$

If we want to avoid the risk when the market falls, we only need to hold a short list of agricultural legal social effects corresponding to the market value of the agricultural legal social effects of the position. If the market value of the short order is F, then when the market falls by X, the income will be:

$$Profit = X * F \quad (4)$$

We set:

$$Profit = Loss \quad (5)$$

Then:

$$\beta * X * S = X * F \quad (6)$$

The market value F should be:

$$F = \beta * S \quad (7)$$

The initial value of the social effect of agricultural law is M, and the margin ratio of the social effect of agricultural law is m, then the following equation holds:

$$M = m * F = m * \beta * S \quad (8)$$

If it is assumed that the current agricultural economic savings is C, the part that needs to be used for agricultural trade is S, and the initial value is M, then the following equation is given:

$$C = S + M = s + m * \beta * S = (1 + m * \beta) * S \quad (9)$$

It can be seen from the above that the initial value M_1 of the value F of the social effect target of short agricultural law is:

$$M_1 = m * F = m * \beta * S \quad (10)$$

If it is assumed that the short loss of the social effect of agricultural laws is 10%, the margin M_2 needs to be added to the futures account.

$$M_2 = 10\%F = \frac{1}{10}\beta * S \quad (11)$$

It is necessary to reserve a margin $M_1 + 2 * M_2$ in advance in the futures account, namely:

$$M = M_1 + 2 * M_2 = m * \beta * S + 2 * \frac{1}{10}\beta * S = m * \beta * S + \frac{1}{5}\beta * S \quad (12)$$

$$C = S + M = S + m * \beta * S + \frac{1}{5}\beta * S = \left(1 + m * \beta + \frac{1}{5}\beta\right) * S \quad (13)$$

Therefore, the distribution of agricultural trade funds S that can be allocated to the social effects of agricultural laws is:

$$S = \frac{C}{1 + m*\beta + \frac{1}{5}\beta} \quad (14)$$

The calculation formula of F is:

$$F = N * P * 300 \quad (15)$$

Among them, N is the number of empty lots, and P is the price of agricultural trade.

$$M = m * F = m * N * p * 300 \quad (16)$$

$$N = \frac{M}{(P*300*m)} \quad (17)$$

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Then the number N of empty bills for agricultural legal social effects that the model currently needs to issue is:

$$N = \frac{M}{(P*300*m)} = \frac{C\left(m*\beta+\frac{1}{5}\beta\right)}{\left(1+m*\beta+\frac{1}{5}\beta\right)*p*300*m} \quad (18)$$

4. CONSTRUCTION OF THE SERVICE MODEL OF AGRICULTURAL ECOLOGICAL LAW

After the user logs into the APP, the authentication is performed first, and then the next level of feasible operations is entered according to different users and related permissions, and different operations are performed in combination with the permissions and the scope of the application. For ordinary citizens, they can use the functions of past case search and query, legal consultation, legal aid online, legal education online, civil dispute online resolution, and legal public opinion guidance. For legal professionals, they can use functions such as past case retrieval and query, online resolution of civil disputes, case judgment results prediction, file digitization, legal document writing assistance, trial assistance and other functions. The processing related modules divided according to different user types are shown in Figure 1.
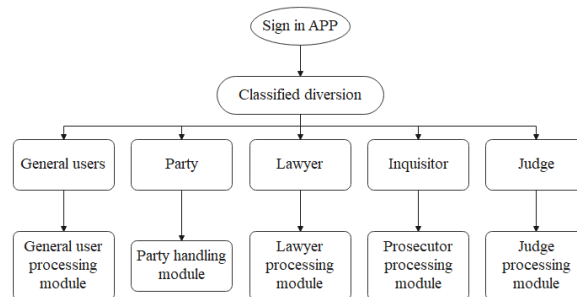

Figure 1 Login processing module

The design purpose of this system is to provide a new access method for ordinary people and legal professionals, save the time cost of legal personnel, improve the efficiency of legal services, and reduce litigation costs. The main functional modules of the entire system are as follows:
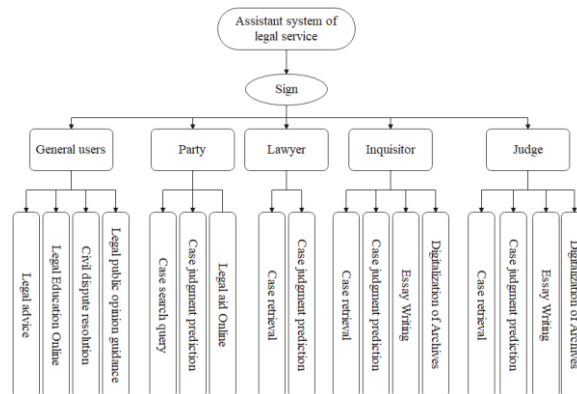

Figure 2 The main functional modules of the system

The main task of the logical structure design of the database is to create the associated two-dimensional table of the database by using the ER diagram. Generally, the logical structure of a database has the following four basic structures:
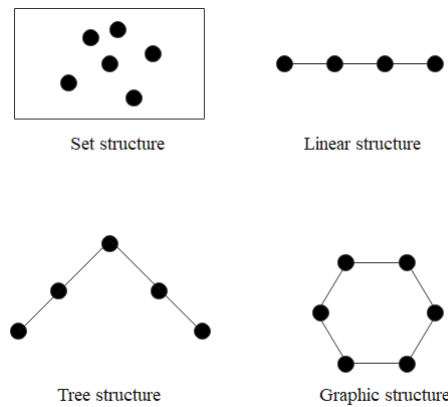
Figure 3 The logical structure classification diagram of the database

Conceptual model is an indispensable link in conceptual design. It can provide technical support for database design. Using mathematical concepts, the core is the modeling of information data. The most commonly used conceptual model is the E-R model. In terms of program design, it refers to drawing an ER diagram during the requirements analysis stage. The E-R diagram is the entity-relationship diagram including three parts: entity, attribute, and relationship. The entity of the ER diagram refers to the data object in the data model. The attributes of the ER diagram are the attributes of the data object. The relationship of the ER diagram refers to the way data objects communicate with each other. For example, the ER diagram of case retrieval is:
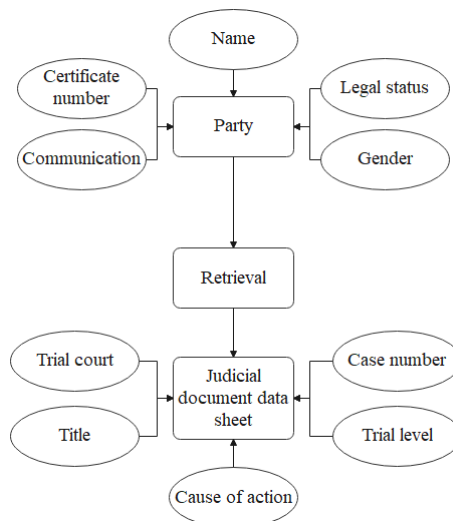

Figure 4 ER diagram of case retrieval

The case library of our case-based legal expert system uses ORACLE database technology to achieve storage. The learning of the system is realized by adding or deleting cases, adjusting the characteristics of the cases and the weights of the characteristics. The flowchart of the system learning module is shown in Figure 5.
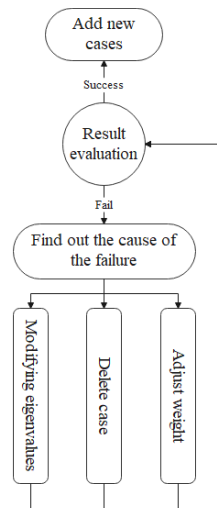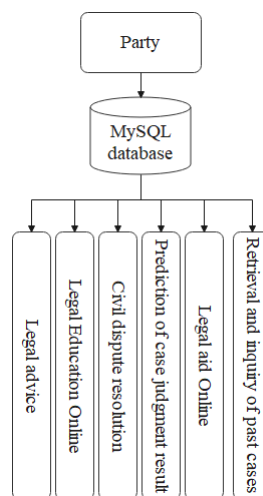
Figure 5 Flow chart of the system learning module

The processing process of the classification module is shown in Figure 6.
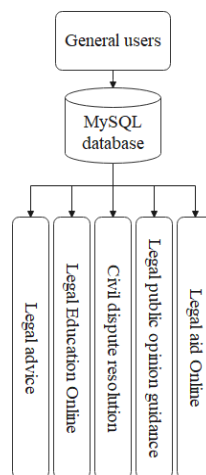
Figure 6 The processing process and modules of general users

The processing process and modules of the parties are shown in Figure 7.

**Figure 7** The processing process and modules of the parties

The basic steps of the crawler designed in this paper are: 1. First, it crawls the information in the list page according to the initial URL, and then uses regular expressions to extract the "document ID" field information. 2. It then concatenates the obtained "document ID" field information and a fixed string to form the URL of the complete referee book content page. Then, it constructs a list of new URL links, and then extracts the URLs from the new URL link list one by one to crawl the referee details page. 3. Finally, it saves the crawled judgement documents in word format and saves it locally, which is the basis for the extraction and analysis of subsequent information. The crawler framework is shown in Figure 8.
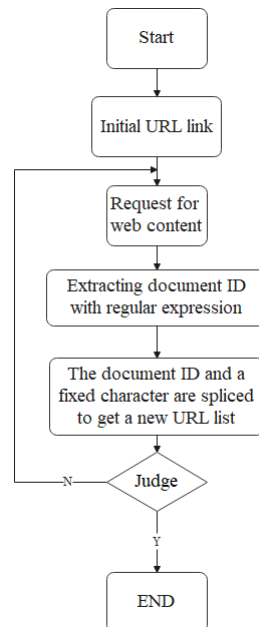
Figure 8 The usual crawler framework

Generally, when performing a crawler, if the frequency of visiting a website is too high and reaches the threshold set by the website, then the website will be banned when visiting the website again. Under normal circumstances, the means to prevent a website from being crawled by a crawler is usually to identify whether it is a crawler based on the IP. Therefore, when writing a crawler program, we must consider this problem. When designing a crawler program, we can usually take two measures to solve this problem. 1. We can slow down the crawler's crawling speed of website information, which can reduce the pressure on the target website. However, the speed of crawling will be slower. When a large amount of data is captured, the time will be very long, and the efficiency of capturing information will become very poor. 2. We can also set the proxy IP, which can break through the mechanism that the target website grabs the crawler program too frequently and prohibits the crawler program from crawling information. The first way is to introduce the time package in the crawler program. When writing the crawler program, the time. sleep() command was added to it, so that every time the crawler program requests the other server to obtain information, it will pause for a certain period of time, and then continue to send the request information to the target website. The second anti-ban method is to crawl a certain number of IP numbers by specifying the URL of the IP website of some public free websites. Because the crawled IP is free, it may be unavailable or unstable when using these IPs. Of course, there are charges for IP, and the effect is definitely better than free IP when used. However, considering the actual situation, it may not be cost-effective to spend money on IP, so this paper uses crawled free IP. This article puts the crawled IP into the IP pool. When the crawler visits the target website too many times, the crawler randomly selects an IP from the IP pool to replace it. If it is useful, the crawler continues its crawling task. If the randomly retrieved IP is unavailable, the crawler will randomly select it again until the selected IP can normally crawl information on the target website. Figure 9 shows the crawler framework of this paper.
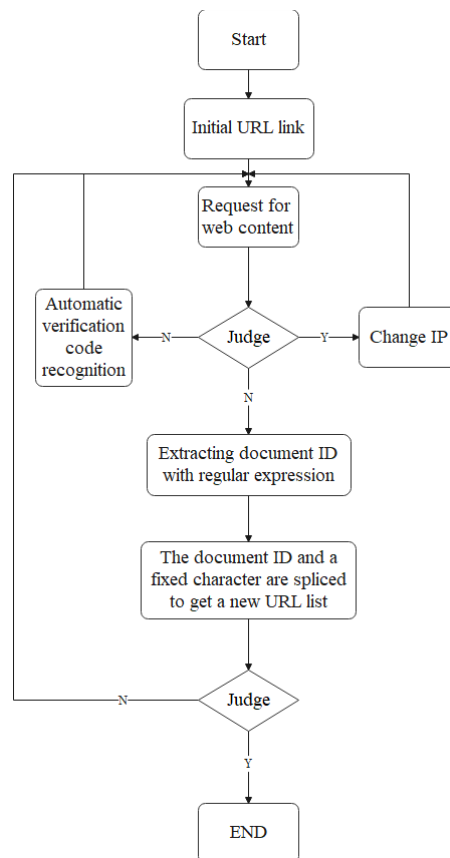
Figure 9 The crawler framework designed in this paper

5.ANALYSIS OF AGRICULTURAL LEGAL PROTECTION SYSTEM FROM THE PERSPECTIVE OF BIG DATA

my country's agricultural ecological compensation has not yet been protected by a systematic and complete law. Moreover, the formulation of laws has not been systematic, and many contents have not been incorporated into the system. In terms of law enforcement, there is no set of practical operating procedures, and the force of enforcement is not enough. In addition, there are no corresponding relief procedures and systems to protect the legitimate rights and interests of relevant stakeholders during the compensation process or after the compensation.

.1. Lack of the protection of authoritative laws and regulations. In the current system of laws and regulations, we have not found any laws and regulations that have made detailed and systematic provisions on agricultural ecological compensation. The state has only formulated corresponding policies on the macro level to adjust them, and these policies have not been authoritative. To implement and determine legal norms, we can only save some scattered regulations in some administrative regulations or other lower-level laws, and because there is no authoritative law to protect it, it further affects the specific implementation of compensation work. 2. The legislative basis for agricultural cattle state compensation is complicated and confusing, and there is no systematic and complete legal system to regulate it. The agricultural ecological environment is a systematic whole, so the country must also have a national systematic compensation system to adapt to it. Many provinces in the Umbrella Country have formulated their own ecological compensation regulations, but their contents are relatively empty and roughly similar, without a unified principle. Basically, they are working independently, lacking the unified guidance of central laws and policies. At the same time, the above-mentioned provinces have not formulated specific implementation procedures and implementation norms. In the operation of policies, the lack of legal and policy basis may cause difficulties in implementation and waste of resources.

(2) The fiscal and taxation guarantee system is not perfect 1. The public finance system is not perfect. my country's public financial system still needs to be supplemented and improved. It is still relatively difficult to provide

long-term stable direct funding sources for agricultural cattle compensation. Because the value of the agricultural ecological environment is difficult to assess and the compensation object and scope are special, it is precisely because of these special cases that the compensation standards and methods are uncertain. The public finance system in western countries is relatively mature, and they have strong finances to support agricultural ecological compensation. Compensation funds in our country can only be obtained through narrow channels. National finance and special funds are the most common sources of funds, and the former is the most important source of compensation. Therefore, it needs the support of a sound public financial system and a large number of governments. Capital investment. At this stage, the focus of my country's financial support for agriculture is still to support agricultural economic growth, and the total input for agricultural ecological environment is insufficient, and the proportion is low. First, compared with urban environmental protection, the investment proportion is insufficient. Second, the fiscal allocation of rural ecological protection is unscientific. The proportion of investment in large and medium-sized water conservancy projects is relatively high, and the investment in projects that are closely related to the prevention and control of agricultural self-pollution, such as scientific irrigation, soil testing formulas, and water and soil conservation subsidies, are relatively small. The third is that there is too little financial support for environmental protection supervision. Rural environmental protection departments have a huge shortage in terms of institutional settings, staffing, environmental protection equipment and working expenses. 2. The fiscal subsidy policy needs to be improved. One is the unreasonable way of agricultural subsidies. For a long time, most of my country's agricultural subsidies have been price subsidies. This policy has greatly promoted the development of the agricultural market, but at the same time it has also caused serious pollution to agricultural production and the chaotic environment, causing serious pollution of water resources, soil compaction, and The deterioration of soil quality has restricted the sustainable development of agriculture in the future. Second, the structure of agricultural subsidies is unscientific. The state gives preferential policies to chemical inputs such as fertilizers, pesticides, and agricultural films, which reduces farmers' production costs and increases farmers' purchasing power. The large-scale use of pesticides, fertilizers, and herbicides has in turn aggravated agricultural pollution. 3. Lack of a sound taxation system. my country's current tax system takes a protective attitude towards agricultural ecological environmental protection, and there are preferential policies to promote sustainable agricultural development in business tax, value-added tax, income tax and other taxes. However, my country's current tax system lacks the spirit of protecting agricultural ecology and the agricultural environment. First, the state's tax rate for certain agricultural chemical inputs is relatively low, which to a certain extent stimulates some companies that produce the inputs to expand their production scale, and the large-scale use of the above products indirectly leads to more serious environmental pollution. . Second, my country has not yet levied environmental protection taxes and agricultural pollution taxes, and the fees for agricultural environmental pollution are not fixed, and the enforcement is not strong enough, which allows those polluters to take advantage of the loopholes.

Based on the above analysis, this paper puts forward the following suggestions to improve my country's ecological agriculture legal protection system:

For the smooth implementation of agricultural ecological compensation, sustainable development must have a corresponding complete supporting guarantee system. First, there must be an environmental monitoring system to monitor and record the environmental quality before and after compensation. Second, there must be an environmental impact assessment mechanism to assess environmental pollution and protection, ecological damage and restoration. Third, there must be a systematic and feasible supervision system to supervise the entire compensation project. In addition, it is necessary to implement an effect evaluation system, an accountability system for related responsibilities, and so on. Therefore, it is first necessary to improve the agricultural eco-labeling system. The establishment of an environmental labeling system for agricultural products can encourage agricultural producers to engage in environmentally friendly production and produce ecological organic products, which can give consumers better choices and also achieve the purpose of protecting the agricultural ecological environment. With the improvement of people's living standards, people's consumption concept has also been continuously improved. As long as the quality is excellent, non-toxic, ecological and environmentally friendly, and the price is within affordability, consumers will prefer "green products". In this way, it not only meets the purchase needs of consumers, but also achieves the purpose of ecological compensation, and achieves a win-win situation of ecological and economic benefits.

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Secondly, it is necessary to improve the organization and supervision guarantee, establish a compensation policy formulation agency, give full play to the supervision power of the social middle class and farmers, and improve the ecological compensation fund management system.

Finally, it is necessary to rely on the project to implement agricultural ecological compensation. Relying on the project to carry out agro-ecological construction is the result of many years of practice in Western developed countries. The implementation of agricultural ideological compensation through the construction of ecological projects not only promotes economic development but also protects the agricultural ecological environment. In practice, we can compare the specific conditions at home and abroad to selectively absorb advanced foreign achievements and implement agricultural ecological compensation with Chinese characteristics.

6.CONCLUSION

The agricultural ecological environment is related to food safety, food safety, people's health, living environment and sustainable development of agriculture. Therefore, the establishment of a sound agricultural ecological compensation system has become a major issue that we need to solve. The agricultural ecological compensation work involves a wide range, large capital investment, strong professionalism, and high technological requirements. Based on the analysis of the status quo of agricultural compensation at home and abroad, this paper finds many deficiencies in the system and guarantee system. Moreover, this paper introduces advanced foreign technology and practical results to provide some suggestions for improvement of agricultural ecological compensation in my country in terms of content determination, legal system design, fiscal and taxation system reform, supervision and management system, and supporting measures. All in all, agricultural ecological compensation is of great significance for protecting, improving and restoring the agricultural ecological environment, promoting farmers' income, ensuring food security and realizing social equity.

REFERENCES

[1]. Ismatov R O, Dadaboev T Y, Karabaev S A. Investment possibilities in agricultural networks[J]. Theoretical & Applied Science, 2019 (2): 350-355.

[2]. Spicka J, Hlavsa T, Soukupova K, et al. Approaches to estimation the farm-level economic viability and sustainability in agriculture: A literature review[J]. Agricultural Economics, 2019, 65(6): 289-297.

[3]. Dabovic D. Legal Framework of International Cooperation of the Republic of Serbia in Agriculture[J]. Russian Journal of Comparative Law, 2017 (4-2): 63-70.

[4]. Kenaphoom S, Singmart S. POLICY GUIDELINES FOR DEVELOPING THE AGRICULTURE THROUGH THE SOCIAL ENTERPRISES: KEYS-SUCCESS TOWARDS THE SUSTAINABLE DEVELOPMENT[J]. European Journal of Molecular & Clinical Medicine, 2021, 7(8): 4910-4920.

[5]. Radukh N. The problems of investment support of innovative development of agriculture[J]. Scientific Messenger of LNU of Veterinary Medicine and Biotechnologies. Series Economical Sciences, 2020, 22(95): 52-57.

[6]. Szymanska E J, Dziwulski M. The Impact of Fixed Asset Investments on the Productivity of Production Factors in Agriculture[J]. European Research Studies Journal, 2021, 24(1): 382-394.

[7]. Gashi A. THE ROLE OF INVESTMENT IN THE FIELD OF AGRICULTURE IN KOSOVO[J]. Knowledge International Journal, 2019, 31(5): 1459-1462.

[8]. Zhussupov Y, Tursumbayeva M, Shokhan R, et al. Main Directions of Increasing Competitiveness Considering Specificity of Agriculture and Its Sustainable Development[J]. Journal of Environmental Management & Tourism, 2020, 11(7): 1829-1840.

[9]. Kim T. Attraction of foreign direct investment in agriculture[J]. Accounting, 2021, 7(6): 1407-1416.

[10]. Miłaszewicz D, Nermend K. Macroeconomic determinants of investment in agriculture in Poland–Dematel method[J]. Metody Ilościowe w Badaniach Ekonomicznych, 2017, 18(1): 99-109.

[11]. Shinet G G, Abdibekov S U, Koptayeva G P. State regulation of insurance system in agriculture of the Republic of Kazakhstan[J]. News of the National Academy of Sciences of the Republic of Kazakhstan. Series of Social and Human Sciences, 2019, 5(327): 28-35.

[12]. Alessa A A, Zaabi E A, Diab A M. Impact of Environmental Factors on Financing Agriculture Entrepreneurs[J]. International Journal of Entrepreneurship, 2018, 22(4): 1-13.

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[13]. Lanz K, Gerber J D, Haller T. Land grabbing, the state and chiefs: The politics of extending commercial agriculture in Ghana[J]. Development and Change, 2018, 49(6): 1526-1552.

[14]. Onegina V, Vitkovskyi Y. Investments and land reform in agriculture of Ukraine[J]. Agricultural and resource economics: international scientific e-journal, 2020, 6(4): 187-210.

[15]. Clapp J. The rise of financial investment and common ownership in global agrifood firms[J]. Review of International Political Economy, 2019, 26(4): 604-629.

[16]. Wegren S K. The "left behind": Smallholders in contemporary Russian agriculture[J]. Journal of agrarian change, 2018, 18(4): 913-925.

[17]. Coble K H, Mishra A K, Ferrell S, et al. Big data in agriculture: A challenge for the future[J]. Applied Economic Perspectives and Policy, 2018, 40(1): 79-96.

[18]. Derunova E, Andryushenko S, Gerchikova E, et al. Monitoring of innovative activities effectiveness in agriculture[J]. Scientific Papers. Series" Management, Economic Engineering in Agriculture and rural development, 2018, 18(3): 89-100.

[19]. Say S M, Keskin M, Sehri M, et al. Adoption of precision agriculture technologies in developed and developing countries[J]. Online J. Sci. Technol, 2018, 8(1): 7-15.

[20]. Madina E. PROBLEMS OF INNOVATIVE ECONOMY IN DEVELOPMENT OF AGRICULTURE[J]. Emergent: Journal of Educational Discoveries and Lifelong Learning (EJEDL), 2021, 2(04): 30-42.

[21]. Peter A, Rastislav K, Kravcakova V I. Legal form of agricultural entities as a factor in ensuring the sustainability of the economic performance of agriculture[J]. Agricultural Economics, 2017, 63(2): 80-92.

[22]. Fuller D Q, Stevens C J. Between domestication and civilization: the role of agriculture and arboriculture in the emergence of the first urban societies[J]. Vegetation history and archaeobotany, 2019, 28(3): 263-282.

[23]. Hilmi M. Middle East Journal of Agriculture Research Volume: 10| Issue: 01| Jan.-March| 2021[J]. Middle East J, 2021, 10(1): 10-52.