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REGIONAL RESONANCE: REFLECTING ON THE INTEGRATION OF HUMAN-CENTRIC VALUES IN LAND PLANNING

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Abstract: The ecological restoration of national land space stands as a cornerstone in the construction of ecological civilization, embodying the material foundation and dynamic force of this endeavor. A collective understanding has emerged, asserting that this restoration is pivotal for fostering a virtuous cycle and sustainable utilization of resources. The United Nations' proclamation of the 2021-2030 Decade emphasizes large-scale restoration efforts, aiming to arrest the relentless degradation of ecosystems. In tandem, the 2015 Overall Program for the Reform of the Ecological Civilization System delineates a three-tiered approach encompassing "mountains, forests, fields, lakes, and grasslands", offering vital guidance for the conceptualization and execution of national land space ecological restoration. Despite these strides, several critical issues persist in the advancement of ecological restoration planning. Notably, the approach remains conspicuously sector-specific, prioritizing ecological preservation at the expense of arable land protection and development, with limited integration in spatial layout. Moreover, existing restoration frameworks lack definitive guiding principles, often relying on a broad maxim of "cultivation for arable land, afforestation for forests, grass for grasslands, and wetland for wetlands". This rudimentary approach proves inadequate in reconciling the intricate challenges posed by shifting land attributes, such as the establishment or repurposing of ecological zones in practical implementation. Concurrently, the absence of explicit value judgments frequently sparks interdepartmental conflicts of interest, impeding the harmonized advancement of sub-systems

Keywords: Ecological Restoration, National Land Space, Sustainable Utilization, Integrated Layout, Interdepartmental Coordination.

1. Introduction

Territorial space is the material foundation, energy source and constitutive element of ecological civilization construction. In this process, a general consensus has been reached that ecological restoration of national land space is the goal of virtuous cycle and sustainable utilization. In 2019, the United Nations released the Decade of 2021-2030, which puts forward the goal of large-scale restoration and curbing the destruction of ecosystems. The Overall Program for the Reform of the Ecological Civilization System was released in 2015, establishing the three levels of "mountains, forests,

fields, lakes and grasses", which provides important guidelines for the idea and content of ecological restoration of national land space; However, in the process of promoting the land space ecological restoration planning, there are still several outstanding problems: for example, there is a strong sectoral characteristic, which puts the interests of ecological protection above the interests of arable land protection and land development, and there is very little integrated layout; for example, the principles of restoration are not clear enough, and most of the restoration plans are based on the principle of "cultivation is suitable for farming, forest is suitable for forestry, grass is suitable for grass, and wet is suitable for wet". The restoration principles are not clear enough, mostly guided by the universal principle of "cultivation is appropriate for farming, forest is appropriate for forest, grass is appropriate for grass, and wet is appropriate for wet", which has no way to solve the outstanding contradiction of changing land attributes, such as returning or building new ecological land in reality. At the same time, due to the lack of clear value judgments, it is easy to cause conflicts of interest between multiple departments, making it impossible to coordinate the promotion of sub-systems.

2. Background: People Orientation and Urban Renewal

2.1. From object-heavy to human-centered, highlighting the concept of humanism

The idea of human-centered planning, emphasizing "people-oriented", has shown its influence more and more in the process of modern and contemporary planning development. Since the 1970s, the mainstream idea of urban planning in China has undergone a shift from science to humanity. In the past forty years, China's cities in the process of high-speed urbanization have been centered on the idea of economic construction as the center of development, which has led to the construction of cities more around large-scale, rapid growth, while the humanistic ideas are relatively difficult and rarely implemented. In recent years, along with the continuous development of China's economy and society, the scientific development idea of "putting people first" has gradually been reversed: the idea of "people-centered" development has been put forward.

2.2. From "demolition to retention" to "retention to demolition", China's urbanization has entered a renewal phase.

China's urban renewal can be divided into three periods: the large-scale transformation of old districts that began in the 1980s, the orderly renewal that began in the 2000s, and the organic renewal that began in recent years. From the earliest overall transformation of old urban areas and preservation of urban historical buildings, to the promotion of "flagship" and "key" projects and redevelopment, as well as attention to social, economic and cultural issues, the mode of urban renewal has changed from "social well-being and economic growth" to "people-oriented".

2.3. Humanistic urban regeneration that starts and ends with the users of the area

Under the new historical conditions, "people-centered" is the goal of "people-centered" development. The production and living needs and immediate interests of urban residents and employed persons should be the starting and ending point of urban renewal.

Human-oriented urban renewal planning pays attention to the needs of urban users on the basis of traditional material space improvement, and through the analysis and optimization of the demographic

structure, the subsequent planning, design and construction practices can be based on the urban users themselves to promote the harmonious development of the society.

3. Method construction

3.1. Theoretical foundations

The idea and value of "people-oriented" planning is precisely the "human being" advocated by Liang Hennian, which essentially contains "materiality" and "rationality". Materiality" makes "man" pursue economic, ecological, agricultural, social and other interests; "rationality" makes "man" pursue "survival"; "rationality" makes "man" pursue "survival"; "rationality" makes "man" pursue "survival"; "rationality" makes "man" pursue "survival". Rationality" makes "people" pursue the balance between "survival and coexistence". Territorial spatial planning puts people at the center and focuses on the use and distribution of territorial space. The natural resources involved in the ecological restoration planning of national land space belong to all the people, so the use and distribution of natural resources are related to the overall interests of the country and the society. Comprehensive planning should be carried out from a reasonable perspective. Under the conditions of "people (stakeholders), events (conflicts), time (where they are) and space (where they are)", the balance between self-existence and coexistence is taken as the standard of measurement, and the pursuit of interests in different dimensions is taken as the framework, which guides the stakeholders to make rational judgments, and to find out how to use the natural resources in multi-dimensions.

3.2. Paradox harmonization model

According to the overall pattern and main development direction defined in the "National Important Ecosystem Protection and Restoration Major Project Plan (2021-2035)", when formulating the ecological restoration plan for the national land space, it is necessary to solve the problems of serious ecosystem damages, fragility, sensitivity, and ecological function decline, and to effectively improve the stability and integrity of ecosystems, as well as to diagnose the obstruction of ecological corridors , and at the same time protect and repair the migration corridors of plants and animals, so it is very easy to have conflict of interests between agriculture and urban areas in the process of ecological restoration due to the strong influence of human activities, which makes it difficult to make the right choice.

Scenario 1: Humans resolve one-dimensional conflicts between two stakeholders, such as assessing conflicts of interest between ecological restoration and cropland conservation interests in the economic dimension, and applying the "self-existence and coexistence model".The solution is to analyze the overall social contribution of both parties under the dimension of "balance between self-survival and coexistence" as a criterion and as a basis for decision-making.

Scenario 2: Human beings solve the multi-dimensional conflict of dual interest subjects, such as analyzing the interest conflict between ecological restoration interests and cultivated land protection interests from the economic, ecological agriculture and social dimensions, and applying the "optimal equilibrium model". The solution is as follows: firstly, split the benefit dimensions, evaluate the social contribution of both parties in a single dimension by the "self-existence and coexistence model", and then determine the importance of the social contribution of each dimension by the "optimization and balance model".

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3.3. Decision-making pathways

Based on the theory of "people-centeredness", starting from the scientific delineation of the ecological restoration pattern of the national land space and the key areas of ecological restoration, and taking the pursuit of physical nature as the framework, a rational balance is made, forming a set of conflicting decision-making methods for the evaluation of Bo Bun from the standpoints of both sides. It is characterized by objectivity, rationality and operability.

The first step is: to delineate the region and clarify the stakes. Problem-oriented research has been conducted on the key areas of regional ecological security, emphasizing the integrity and connectivity of natural geography and ecosystems. Based on the analysis of the ecological security pattern and focusing on the ecological "choke points" and "obstacle points", this project aims to clarify the regional ecological sources, ecological resistance surfaces and ecological corridors through the analysis of the ecological security pattern, and take this as the starting point to analyze the ecological "choke points" and "obstacle points" in the process of regional ecological restoration. Through the analysis of the ecological security pattern, the regional ecological sources, ecological resistance surfaces and ecological corridors are clarified, and the ecological restoration process of the region is analyzed.[1] "Barrier points" are high obstruction areas with the greatest degree of destruction. In critical areas for ecological restoration, priority should be given to the presence of internal land transfer problems. Under the perspective of "people-centered" theory, we clarify the condition variables of "people-thing-time-space", and combine them with the characteristics of land use to clarify the relationship between various stakeholders and determine the formation mechanism of "one person, one thing". [2]

Step 2: Weigh up the needs and make the first judgement. Rationally weigh up the core needs of the site in the region by each stakeholder sector and assess the relevance, urgency and priority of the key issues in the restoration process.The value of the site is measured against the urgency of construction, which represents the importance of the site for a particular spatial use, and the need to maintain that use. The value judgment matrix is constructed and assigned according to the above measurement basis, so that the inter-departmental game process is clear and quantified. Taking the conflict between ecological restoration and cultivated land protection stakeholders as an example (Table 1 and Table 2), the comprehensive score is positive, and the larger the value of the first ecological restoration, that is, the cultivated land becomes ecological land. The original cultivated land with a negative comprehensive score and a smaller value should be retained and used. Reconcile contradictions. If the total value of core demand assignment is.[3]

Table 1: Judgment matrix for ecological restoration needs

Basis of judgment	Higher ecological value	General ecological value	Lower ecological value
Higher urgency for ecological restoration	2	1	0
General urgency of ecological restoration	1	0	-1

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Low urgency for ecological restoration	0	-1	-2

Based on the ecological restoration pattern of the country, the agriculture and urban construction parties take the importance of the policy and the urgency of the start-up as the reference, and the value judgment matrix is constructed by the consultation of the main departments and the values are assigned according to the above measurement bases, so as to make the process of the inter-departmental game clear and quantitative. Taking the conflict between the interests of ecological restoration and farmland protection as an example (Tables 1 and 2), the larger the value of the composite score is, the more the ecological restoration should be carried out first, i.e., the farmland should be converted into ecological land, and the smaller the composite score is, the more the farmland should be retained for its original
use.[4]

Table 2: Cropland conservation needs judgment matrix

Basis of judgment	Higher ecological value	General ecological value	Lower ecological value
Higher urgency of agricultural production	-2	-1	0
General urgency of agricultural production	-1	0	1
Lower urgency of agricultural production	0	1	2

4. Regional land spatial planning ideas and restoration mechanisms

4.1. Identification of regional conflicts

On this basis, by defining the ecological restoration pattern of the national land space, the key areas for ecological restoration are clarified, thus highlighting the dilemmas facing the construction of ecological civilization in the region and clarifying the necessity of its implementation. Among them, the ecological compensation zones are mainly distributed in the central and northeastern part of the city, which are the production sites of urban construction agriculture; the ecological "pinch points" and "obstacle points" are mainly concentrated between the urban construction land and the agricultural land, with obvious typicality and transformation, which to some extent constrain the ecological restoration of some areas. The ecological "pinch points" and "obstacle points" are mainly concentrated between urban construction land and agricultural land, with obvious typicality and transformability, which, to some extent, restrict the implementation of the spatial planning of ecological restoration in some areas. On this basis, the ecological restoration pattern is combined with the suitability of agricultural production and urban construction in the whole region, and a piece of controversial and representative land is selected in the agricultural space and urban space respectively, and the argumentation of contradiction harmonization is carried out, so as to determine whether it is necessary to convert the land or not.[5]

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4.2. Clarification of benefit mechanisms

The "people" involved in the process of ecological restoration of national land space are the dual-interest subjects, i.e., ecological restoration interests and cropland protection interests, as well as ecological restoration interests and construction and development interests, the "matter" is whether or not to convert cropland and land for commercial facilities into ecological land, and the "time" is the current stage of high-speed economic development, which advocates ecological priority and food security priority. The "matter" is whether to convert farmland and commercial facility land into ecological land, the "time" is the stage of medium- and high-speed economic development that advocates ecological priority and food security priority, and the "space" is the area of conflict of interest, i.e., land parcel A and B. Based on this, we analyze the "self-survival and coexistence" mechanism of the subject of interest. The mechanism of "self-existence and coexistence" between the interested parties is analyzed accordingly.[6]

5. Contradictory Decision-making on Regional Land Spatial Planning and Ecological Restoration from a Humanistic Perspective

5.1. Assessment of Core Needs of Regional Sites

Under the rational perspective of the ecological restoration department, Parcel A is a moderately sensitive ecological environment area, and the main department, combined with the research results of the background evaluation of the city and the process of ecological red line demarcation, comprehensively determined that the ecological value of Parcel A is general; in the ecological restoration pattern of the national land space, this parcel is located in the "pinch point" of an important ecological corridor, which is irreplaceable, and the lack of or damage to it will easily affect the connectivity of ecological corridors, combined with the water quality monitoring report of streams in the study area provided by the relevant departments. Combined with the water quality monitoring report of the streams in the study area provided by the relevant departments, the ecological restoration pattern of this site is weighed. The urgency of ecological restoration of this site is weighed and judged to be high. According to Table 1, the core demand of ecological restoration of Parcel A is scored as 1.

Under the rational perspective of the cultivated land sector, Parcel A is a 6th class cultivated land belonging to the suitable area for agricultural production, with flat slope, concentrated and continuous, near the permanent basic farmland reserve area, combined with the guidance of the permanent basic farmland verification and rectification of replenishment policy, it is comprehensively determined that the cultivated land of Parcel A is of great value: in terms of urgency for agricultural production, the northwest side of Parcel A is a continuous high-quality cultivation, with reference to the deployment of the task of comprehensive rectification of the national territory spatial. The neighboring arable land has great potential for upgrading. Therefore, weighing the urgency of agricultural production of Parcel A is not high, according to Table 2, the core demand of Parcel A's arable land protection is -1. The sum is 0. It means that both parties cannot judge whether the land needs to be converted or not, and it is necessary to enter into the stage of "multi-dimensional evaluation and coordination of contradictions". (1) Measurement of "self-existence and coexistence". In the economic dimension, the market value of the cultivated land on which Parcel A is located is about 0.15 billion yuan/m2D, and if the ecological

restoration is transformed into grassland, the market value will be about 0.24 billion yuan/km22, so the self-survival value under the economic dimension is 1.6. Considering that after the cultivated land is transformed, the production interests of the neighboring and returning farmers will be affected, the value-added portion of the market value is appropriately allocated to the cultivated land, and based on the co-efficient of co-survival announced by the governmental department in advance, the coefficient is 0.5, and the co-survival value of Parcel A is 1.23 under the economic dimension. According to the coexistence coefficient of 0.5 announced by the government department in advance, the coexistence value of Parcel A under the economic dimension is 1.23.

Under the ecological dimension, the ecological benefits provided by cropland mainly come from regulating services, in which the hydrological regulating capacity and gas regulating capacity of paddy fields are much larger than those of other croplands (2; from the perspective of ecological protection necessity, paddy fields account for nearly half of the total area of cropland in the study area, and the number of croplands with similar ecological benefits is relatively large. Therefore, it is determined that the ecological efficiency of Plot A is high. The necessity of ecological protection is average. If converted to eco-land, the ecological benefit brought by grassland is limited, but the department takes into account the requirements of ecological civilization construction and pays more attention to the ecological benefit as a whole. The ecological benefit of Parcel A will be improved to a certain extent; as for the necessity of ecological protection, although the grassland has stronger substitutability than other ecological land, Parcel A is in the key area of ecological restoration, and its absence seriously affects the connectivity of ecosystems, and combined with the ecological restoration department's judgment of the urgency of ecological restoration of Parcel A, it is comprehensively determined that the ecological benefit of Parcel A is general and the necessity of ecological protection is higher after the conversion. The need for ecological protection is high. Based on the scoring criteria for the conversion of cropland to eco-land under the ecological dimension announced in advance (Tables 3 and 4), it was determined that the coexistence value of Parcel A was 1.14.

Under the agricultural dimension, the quality of cultivated land in the study area is concentrated in 5-10 grades, with significant differences in agricultural benefits, and the value of agricultural production brought by cultivated land of 6 grades and above is significantly greater than that of cultivated land of 7-10 grades; in addition, due to the large number of cultivated land of 6 grades in the whole region, the proportion of the total cultivated land in the whole region is higher than that of cultivated land of 6 grades in the whole country (20%), but the main department, taking into account the current cultivated land balance program and permanent basic farmland verification and reform and delineation situation in the study area, determines that plot A is of high quality and long-term stability, and the necessity of agricultural production is higher at the present stage. However, the main department, taking into account the current program of balancing cultivated land with replenishment in the study area and the verification and rectification of the permanent basic farmland delineation, decided that Parcel A, as a long-term stable cultivated land with high quality, has a high agricultural benefit and necessity of agricultural production at the present stage. If it is converted to grassland, the production benefit of Parcel A is relatively limited compared with other ecological land, and the number of grassland with

production value in the whole region is not much, so the agricultural benefit of Parcel A after conversion is low and the necessity of agricultural development is general. According to Tables 5 and 6, the coexistence value of Parcel A under the agricultural dimension is 0.22.

Under the social dimension, arable land brings food security for people's livelihood and is an important cornerstone for the development of county and district areas. Parcel A is located in one of the few regular, medium- to high-quality arable land contiguous areas in the study area. With food security rising as a national strategy, the social benefits and necessity for people's livelihoods brought by Parcel A are high. If it is converted into ecological land, it can enhance the connectivity of ecosystems, protect people's ecological security and improve the urban and rural living environment, but the social benefits of Parcel A as grassland are lower than those of the large forested land and wetland in the study area. In addition, since the study area needs to improve the social and livelihood development of rural areas and the quality of the rural living environment at the present stage, the social benefits of Parcel A are average but the necessity of the development of the people's livelihood is higher. According to the scoring criteria (Tables 7 and 8) announced by the experts and the department in advance, the coexistence value of Parcel A under the social dimension is 0.78.

Table 3: Coexistence measures for cropland under the ecological dimension

Basis of judgment	Higher eco-efficiency	General ecological benefits	Lower eco-efficiency
Higher necessity of ecological protection	9	7	4
Necessity of ecological protection	7	5	3
Less necessary for ecological protection	6	4	2

Table 4: Coexistence measures of ecological land use under the ecological dimension

Basis of judgment	Higher eco-efficiency	General ecological benefits	Lower eco-efficiency
Higher necessity of ecological protection	9	8	5
Necessity of ecological protection	8	7	6
Less necessary for ecological protection	7	6	3

Table 5: Coexistence measures of cropland under the agricultural dimension

Basis of judgment	Higher agricultural efficiency	Average agricultural efficiency	Lower agricultural efficiency
Higher necessity of agricultural production	9	6	3

Necessity of agricultural production in general	8	5	2
Lower necessity of agricultural production	6	5	1

Table 6: Coexistence measures of ecological land use under the agricultural dimension

Basis of judgment	Higher agricultural efficiency	Average agricultural efficiency	Lower agricultural efficiency
Higher necessity of agricultural production	8	6	3
Necessity of agricultural production in general	6	5	2
Lower necessity of agricultural production	5	4	1

Table 7: Measurement of coexistence of arable land under social dimensions

Basis of judgment	Higher social benefits	General social benefits	Lower social benefits
Higher necessity for livelihood development	9	7	4
Necessity for livelihood development in general	8	6	3
Less necessary for livelihood development	7	5	2

Table 8: Measurement of coexistence of ecological sites under social dimensions

Basis of judgment	Higher social benefits	General social benefits	Lower social benefits
Higher necessity for livelihood development	9	7	5
Necessity for livelihood development in general	8	6	2

Less necessary for livelihood development	7	4	1

5.2. Multi-dimensional harmonization of conflicts

(1) Measurement of "self-existence and coexistence". Under the economic dimension, the market value of Parcel B as commercial land is about 440 million yuan/km2D, and when it is transformed into urban park green space, due to the special nature of the land is strictly prohibited to be sold, so the actual situation prevails, and the government can only carry out the construction of the park green space through the expropriation of the commercial land, which is the embodiment of the main sector to maintain the "self-survival", so the market value of the park green space is the value of the expropriation of the commercial land (including relocation subsidy and loss of business cessation), which is the value of the park green space.

(2) Optimized balance of overall interests. The study area is expected to develop the petrochemical zone into a pioneer zone of the petrochemical industry on the west coast of the Taiwan Strait, and combined with the development objectives of the national land space body planning, the study determines that the weights of the dimensions of economic development, ecological protection, and people's livelihoods in measuring the conversion of the urban space land use are 40%, 35%, and 25%, respectively, and calculates the ratio of the overall benefits of the conversion of Parcel B into an urban park and green space to be 3.966.

6. Conclusion

At the present stage, there are some problems in China's ecological restoration planning, such as obvious sectoral characteristics, unclear restoration principles, and a single research perspective. In the process of land use conversion, it is easy to lead to the conflict of sectoral interests. Based on the theoretical perspective of "people-oriented", a set of objective, rational and operable decision-making methods for land use conversion is constructed. We coordinate the conflicts from the dimensions of economic development, ecological protection, agricultural production, social livelihood, etc., and take Quangang District as an example to carry out a case study. The selection of agricultural space and urban space based on typical conflicts reflects contradictory decision-making processes on disputed land: (1) Define the territory, clarify the interests: based on ecological security, to determine the ecological restoration pattern and ecological restoration of national land space and ecological restoration of the key areas. It analyzes the interests involved and the mechanism of "one site, one place". (2) Demand trade-off, preliminary judgment game: Based on inter-sectoral rationality, the value of land and the urgency of construction are taken as the basis of land demand trade-off. Through the value judgment matrix fiscal value. Clarify and quantify the gaming process, and make preliminary judgment on the conflicting land with biased core demand.

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