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Research on the Design Strategy of Pastoral Area Creation in Ulat Houqi, Inner Mongolia Based on Social Innovation

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Abstract: With the increasingly serious ecological, economic and social challenges facing the development of pastoral areas in Inner Mongolia, social innovation, as an effective way to promote the sustainable development of pastoral areas, has gradually become the focus of academic and practical attention. Based on the theory of social innovation, this paper discusses the design strategy of pastoral area creation in Ulat Houqi, Inner Mongolia. The study first analyzes the concept and background of social innovation, emphasizing that social innovation not only focuses on technological innovation, but also on improving social relations through a participatory approach to solve the problems of environmental degradation, resource shortage, and social compartmentalization faced by pastoral areas. Secondly, this paper analyzes the current living situation and main needs of herders through field research in the pastoral areas of the Ulat Houqi Banner, and finds that the low degree of informatization, ecological damage, unstable income and other problems constrain the development of the pastoral areas. In this regard, the study proposes a social innovation design model of "common governance, common construction, and common sharing", suggesting that collaborative participation and design thinking should be used to promote interaction and cooperation among herders, society, and the government, so as to promote deep-seated changes in the economic and social relations of the pastoral areas. Ultimately, the paper proposes a creation strategy that focuses on the socialization of pastoral space, emphasizing the improvement of pastoralists' daily life environment through design, enhancing their social cohesion and improving the overall development of pastoral areas. The study provides theoretical basis and practical guidance for promoting social innovation in ethnic minority areas and has important social value and application prospects.

Keywords: social innovation; pastoral areas; sustainable development; Ulat Houqi; collaborative participation

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1. Introduction

In China, the development of ethnic minorities has always been a key issue that should not be ignored, located in the northern border of Inner Mongolia region is a vast area with rich resources, which is of great significance for China's development and construction. Pastoral economy as one of the economic forms to promote the development of Inner Mongolia, which contains the animal husbandry is Inner Mongolia has the characteristics of the advantage of the type of industry, with great prospects for development, and has always occupied an important proportion of the production and life of the herdsmen in Inner Mongolia. In the current era, the pastoral conflicts are becoming more and more obvious and there are many problems, the herders are indifferent to the phenomenon of individualization of groups, livestock problems cannot be guaranteed, the environment is deteriorating, the herders' income is unstable and slow growth, the original "top-down" policy planning, but also gradually detached from the herdsmen's aspirations, unable to meet the multiple value propositions of the different interests. The original "top-down" policy planning has gradually become detached from the demands

of herders and has failed to meet the multiple value propositions of different stakeholders [1].

2. The Need for Social Innovation to Intervene in the Productive Lives of Pastoralists

2.1. Conceptualization of Social Innovation

The term social innovation first appeared in 1921, when Wolfe studied the behavior of individuals with radical overtones [2]. In 1957, Drucker affirmed the existence of social innovation from the perspective of management, defining it as a kind of non-technical research in the field related to organizational theory and marketing practice. After the 21st century, the concept of social innovation is mostly understood as a systematic change in which organizations or individuals in different fields of society use new means and methods in a participatory way to solve problems in society, change social relations, create value together, improve social welfare, and increase social efficiency.

The theory of social innovation is cross-disciplinary in nature, and in the field of design, industrial designer Papanak, in *Design for the Real World*, criticized the design form of design that is preoccupied with aesthetics as well as technology [3], and proposed that design should focus on social ethics and morality, and pay attention to social problems arising in developing countries, and solve them by means of design. In his book, he said, "Design must be revolutionary and radical in the true sense of the word if it is to bear responsibility for ecology and society." Not unlike the idea that social innovation was first proposed. Later design theorist Victor Margolin was influenced by Papanak's work. Magrin, influenced by Papanak, developed the concept of "social design" and constructed a "social model" to build on the work processes of social workers, in which designers could play a role at various stages of the process. Ezio Mancini, Professor of Sustainable Design and Design for Social Innovation at the Politecnico di Milano, has developed the concept of social innovation and social design. Mancini, a professor of sustainable design and social innovation design at the Politecnico di Milano, crosses the concepts of social innovation and design, and proposes the concept of "design for social innovation" [4], and mentions in "Design, in the age of design for all" that "design for social innovation is all the activities that a professional design can carry out in order to activate, maintain and guide the society in the direction of sustainability. All activities. Everyone can be a designer and carry out social innovation design activities from the bottom up by engaging in a collaborative approach."

The study of social innovation covers a wide range of disciplines, including social, economic, cultural, design, ecological, management and other disciplines, and the concepts are intertwined, but all of them cover three elements: firstly, it is the creation of new social relations through participatory approaches; secondly, it is the solution of problems that arise in the society to satisfy the social needs; and thirdly, it is the provision of solutions or new products and services in order to solve the social problems. Thirdly, it provides solutions or new products and services to solve social problems.

2.2. Analysis of the Current Situation of Mongolian Herders in Pastoral Areas

In recent years with the rapid development of China, 2020 has been fully built a moderately prosperous society, is expected to 2035 will basically realize the socialist modernization, in this high-speed development of the times, in China's border areas of ethnic minority areas are still slow to develop, on the current situation of pastoralism in Inner Mongolia nowadays, a number of problems have emerged: individual herdsmen are increasingly conflicting conflicts between the pastoralists, the grassland ecology gradually The trend of desertification and Gobiization, the slow economic development of the entire pastoral industry, the lack of sustainability of pastoral development, and the low degree of informationization have had a considerable impact on the livelihood of the herders.

During the people's commune, livestock in Inner Mongolia pastoral areas are collective industries, herders can jointly participate in the process of livestock breeding, from the allocation of pasture resources to grazing activities are through the collaborative participation of the corresponding planning, in the pastoral areas at that time, good neighborly relations, information exchange is more frequent. However, since the abolition of the people's commune system, livestock are raised by herders on their own, the conflict of interest between herders, the relationship began to drift apart [5]. After that, Inner Mongolia implemented the pasture contracting system, began to clarify property rights, so that the relationship between the herders produced a huge gap, weakened their participation in the collaborative relationship, and even the emergence of antagonistic conflict. Long-term tensions have led to a vicious circle: the uneven distribution of pasture resources has led to ecological deterioration. Herders need to spend extra money to buy grass, and are faced with the problems of high consumption, high inputs and high debts, making the livelihood of herders in pastoral areas, where modernization of information technology is relatively weak, an increasingly serious problem.

From the current situation, the interaction and mutual assistance between herders in Inner Mongolia is weak, which makes the development of the whole pastoral area slow, contrary to the current social policy proposed by the state, the development of the pastoral area in Inner Mongolia is not only limited to the single, closed, short-term economic gains of individual herders, but also focuses on the construction of the sustainable development of the whole pastoral area, to improve the livelihood and well-being of herdsmen, to reduce the vulnerability of their livelihood capital and to develop the advantages of the capital industry in Inner Mongolia from a more macro point of view. macro perspective to develop the capital industry advantages of Inner Mongolia's pastoral areas.

2.3. Trends in Social Innovation Design Interventions in Pastoralist Life

The theory of social innovation is built on the basis of "common governance", "common construction" and "common sharing", and it has the nature of cross-discipline, which crosses with the design discipline to form the social innovation design. With the keywords of "social innovation" and "social innovation design", we searched the literature on "Web of Science" and "China Knowledge Network (CNKI)". "China Knowledge Network (CNKI)", we searched the relevant literature at home and abroad in the past ten years.

The clustering of domestic and international research mainly focuses on the following aspects: 1. Community social innovation: putting organizations and institutions into community building in a participatory way, improving the lives of community residents through design thinking, and solving social problems in the process of community building. 2. Design management: intersecting the disciplines of design and management, emphasizing design ecology of enterprises, and helping them to create value. 3. Social innovation strategy: integrating existing resources through participatory design, co-creation, and design thinking to integrate existing resources in order to obtain the best path for social innovation design. 4. Ecological and Sustainable Design: Focuses on the life cycle of product design, with the goal of preserving the natural ecology. 5. Service Design: Focuses on the user experience, service journeys, and business models to promote regional development to solve social problems. 6. Design Education: Relevant scholars integrate social innovation design with curriculum, triggering the development of social innovation among students and the community. design and curriculum, triggering students and institutions of higher learning to rethink design education. 7. Rural revitalization social innovation, rural construction is one of the most important objects in the field of social innovation design in China, which is based on the local non-heritage culture, traditional handicrafts as a resource to revitalize the traditional countryside through collaborative design and solve the corresponding social problems.

Social innovation design has the unique nature of cross-disciplinary, the research perspective is broader, in addition to the human, life, ecology, business, society and other aspects of the concern, in addition to the research is more focused on foresight, focusing on the backward areas and groups of concern. For the pastoral areas of Inner Mongolia herders of the social problems that arise, can put forward effective programs to solve, connotation of design thinking and traditional pastoral areas, combined with the pastoral areas and herders of the problems that arise to provide solutions to promote pastoral areas and herders of the systematic change, and effectively promote the development of pastoral areas of the innovation, so the social innovation design intervention in the production and life of the herdsmen is a necessary trend.

3. Research on Pastoral Areas in Ulat Hou Banner, Inner Mongolia

3.1. Overview of the Basic Situation

Ulat Houqi Banner of the Inner Mongolia Autonomous Region, in the northwestern part of Inner Mongolia, is a border pastoralist banner where the Mongols are the main ethnic group and the Han Hui coexist. The Yinshan Mountains in the southern part of the flag cross the east and west, dividing the Hetao Plain in the southern part of the Yinshan Mountains and the hilly plateau in the northern part of the flag, forming a natural layout of "southern grain, northern pasture, and central mine". Its pastoral terrain is mostly mountainous Gobi. Belongs to the plateau continental monsoon climate, therefore has the summer heat and drought, winter cold and dry, precipitation is small, water evaporation is large characteristics. 1950 with a large number of northeastern Mongolians and the influx of Han Chinese, agriculture, industry, the rapid development of pastoralism, "people - grass - animal" between. --With the rapid development of agriculture and industry after 1950, the relationship between "man - grass - animal" in the pasture area has become more and more tense, which is followed by the ecological deterioration of pasture degradation, river breakage, desertification of grassland, etc. Insufficient grass to feed livestock makes many herders unable to keep livestock in captivity and put them into the mountains to raise free-ranging livestock, so that every year, there are lost and weak livestock, directly affecting the herders' livelihood. As a result, livestock are lost and weakened every year, which directly affects the herders' income. This phenomenon is like a vicious circle that affects the production and life of local herders.

3.2. Demand Analysis of Pastoralists

The main object of this research is the pastoralists in the pastoral area of Ulat Houqi, Inner Mongolia Autonomous Region, in order to deeply understand the production and life style as well as behavioral habits of the local pastoralists, stayed here for several months, the author visited the pastoral areas of Bayinbolig Town, Hohhwendur Town, and Qiandamen Submu to conduct a field research, and adopted the offline way of participatory observation and semi-structured interviews to four pastoralist families with a total of 13 people, and the online way of mobile phone call WeChat video and voice research to track all the members of the families, respectively. Cell phone calls WeChat video and voice online way of research, respectively, all members of the herder family tracking, preliminary construction based on the pastoral life of the state of life and the typical life scene, to explore the current pastoral problems, summarize the main needs of the herders.

Household A: 4 members of the family (the owner is 55 years old, the owner's wife is 53 years old, the eldest son is 35 years old, and the second son is 30 years old), herdsmen of Bayinbolig Township, who have been engaged in animal husbandry for generations, with 453 livestock at home, and whose main source of income comes from animal husbandry products. Because of the shortage of grass, the herdsman searches for grass in the neighborhood every morning, and if he finds a suitable pasture in the morning he brings some of the captive sheep to the pasture to graze. In case no pasture is found, they have

to buy grass, which is an additional cost. This year, due to the low precipitation in the area, the grass is already not abundant in the pasture area has become even more scarce. In order to save costs, the owner of the herd only purchased part of the grass, so that the other part of the goats wild, put the grass is more abundant in the mountains to graze, due to the lack of supervision, some of the goats will be weak, death, loss of the situation.

Herding household B: 3 family members (the owner is 47 years old, the owner's wife is 43 years old, his daughter is 20 years old), Bayinbaolig town herdsmen, their daughters go to school outside, and only come home during holidays, usually only husband and wife are engaged in animal husbandry, the livestock at home mainly has 232 animals, the main source of income for animal husbandry products, in the summer before the summer, the owner of the herdsmen will be inquiring from relatives and friends about collecting livestock products of the two traffickers, part of the livestock can be sold at a good price and then sold by them to the local butcher's shop, a small part sold elsewhere. The livestock can be sold at a good price, and then sold by the local butcher store less sold elsewhere, but in recent years because of ecological problems cattle and sheep are weak, enough to weigh the sheep is very little, and the two traffickers will also charge the intermediate costs, the herdsmen's bargaining power is weaker, which directly affects the herdsmen's income.

Herding household C: 2 family members (owner 65 years old, son 43 years old), herders in Hohwendur township, the owner is older and used to life in the herding area. His son has started a family and lives in the city, and usually returns to the herding area 4-5 times a month. Due to the owner's age, most of his livestock are outsourced to outsiders who come to work in the herding area, and all the income from animal husbandry is shared with them, so the income in hand is not guaranteed. The herdsmen usually make their own milk products and hand-pulled meat at home, which have the advantage of being easy to preserve and convenient for one person to consume at home. Shepherds live alone, and in pastoralist areas, households are scattered, and hospitals and clinics are located in urban areas or on the streets, making transportation very inconvenient. Sometimes when they are sick, they call their relatives who live nearby and have cars or motorcycles to ask for help.

Herding household D: 4 family members (the owner is 57 years old, the owner's wife is 50 years old, a son is 24 years old, and a daughter is 30 years old), herdsmen in the former Damen Sumu, the owner and used to be ethnic music performers, and in the past few decades they would perform in some areas, but now, because of the diminishing number of people who listen to ethnic music, they are forced to return to pasture to graze their livestock for their livelihoods, and the owner will still play his horse-head qin for a while every night after supper. Their two children are not with them, their son is away at school and their daughter is married. There are 302 livestock in the family, and the owner pays attention to the pasture input, considering the problem of grass shortage, he will rent a loan to maintain the pasture on a regular basis. The owner's wife will visit the hospital regularly due to health reasons, in which the investment for health care coverage will increase. The cost of production and cost of living is high.

Demand 1: On the basis of tradition, expand the sales channels of animal husbandry products, reduce the price difference earned by intermediaries, and safeguard the price of products as well as the herdsmen's income. The pastoral areas are not easily accessible and information is closed, so the modernization and informationization model will be popularized in the pastoral areas to promote the cohesion between the herders and the society, and to change from the original closed form of the pastoral areas to the open form of the pastoral areas, so as to enhance the efficiency of the production and life of the herders.

Demand 2: The aging situation in pastoral areas is serious, with fewer young and middle-aged laborers remaining in the pastoral areas, with family incomes derived from only livestock products, with a single mode of income, and with older laborers gradually becoming overwhelmed. There is a need to expand the production methods in the pas-

toral areas, explore the resources of the pastoral areas to create new types of pastoral areas, so that the middle-aged and young people will return to their hometowns and work together to build the pastoral areas.

Demand 3: Compared to urban residents, the cost of living for herders, such as food, transportation and medical care, is much higher than that of urban residents; in terms of productive expenditures, herders' inputs for pasture, feed, medicines, and sheds also have a direct impact on their incomes, and there is a need to safeguard herders' costs of production and living, to reduce over-exploitation of resources, and to work together in the construction and maintenance of pastureland.

Demand 4: With the development of modern society, the cultural value of ethnic minorities has gradually been neglected, and the fine folklore and folk arts of pastoral areas need to be inherited and developed, so that cultural values can also become part of the promotion of pastoral development.

3.3. Analysis of Pastoral Resources

In many cases of social innovation at home and abroad, design intervention has become an indispensable and important force, which is based on the local area, deeply understands and flexibly utilizes the local resources, explores their intrinsic value, and provides solutions to local development and local problems. By applying this method to pastoral areas, local resources are divided into four categories in Table 1, namely industry, society, environment and culture, and their corresponding characteristics, contents and design intervention methods are analyzed to summarize the types of resource-driven social innovation in pastoral areas, aiming at inheriting the advantageous resources and transforming the disadvantageous resources, so as to provide basic support for the intervention of social innovation design in pastoral area construction. The purpose is to inherit the advantageous resources and transform the disadvantageous resources, so as to provide basic support for social innovation design to intervene in pastoral construction.

Table 1. Pastoral Resources.

Resource type	specificities	element	utilization pattern
industrial resource	Resources that support the operation of local economic industries can be tangible or intangible	Livestock, agriculture, coal mining, tourism, retail trade, industry, etc.	Design thinking to provide services or intervene with technology
social resources	Pastoralists, and their social networks, influence trust and its cohesion	Second-hand dealers, veterinarians, livestock sellers, livestock product traders, other herders, relatives and friends, etc.	Design as a driver
Environmental resources	Natural as well as human resources arising from local geographic conditions	Rangelands, shady mountains, pike forest reserves, farmland, desert Gobi, etc.	Design-led ecosystems
cultural resource	Intangible cultural resources, tangible cultural resources	Neolithic ruins, Yinshan rock carvings, Gobi clay sculptures, Ulat weddings, the legend of the Thirteen Oovots of the Ulat Tribe, etc.	Design as a way of thinking

4. Model Analysis of Pastoral Creation from the Perspective of Social Innovation

The design of social innovations is an activity that involves the participation of groups of people who work together to produce a social situation that is more conducive

to the development of pastoral areas, and who, although they may be composed of different groups of people, share the same goal of meeting the multiple value propositions of the different stakeholders, and who must work together in a collaborative manner. This is a "bottom-up" social activity that aims to bring organizations together to build trusting relationships and to build pastoral solutions.

4.1. Map of Design Patterns for Social Innovation

The construction of the map is based on two main dimensions: the axis from "popular design" to "professional design", which focuses on roles and competencies. The axis from "Problem Solving" to "Meaning Building" is about motivation and expectation. The intersection of the two axes results in four quadrants. Each quadrant represents a design model, namely (Mass Design/Problem Solving Quadrant) Grassroots Organizations. (Popular Design/Meaning Making Quadrant) Cultural Activity House. (Professional Design/Problem Solving Quadrant) Design and Technology Organizations. (Professional Design/Meaning Making Quadrant) Design and Communication Organizations. The map revolves around problem solving and meaning making, so that organizations involved in both professional and popular design play an active role and form a new social culture.

4.2. Participation in Collaborative Organizational Analysis

No activity of social innovation can be separated from participation in collaborative forms. Collaborative organizations are highly connected social groups in physical space, whose members work together for specific goals and simultaneously create social, environmental, economic and cultural values to build their own social values of "well-being". Similarly, in the process of creating pastoral areas, the participation of collaborative organizations is also indispensable, and is closely related to the social background, relying on traditional grassroots organizations (herders or ordinary people) to solve problems, establish contacts and promote the implementation of activities is not enough, from a realistic point of view, pastoral environments are in the state of information technology modernization and relatively backward, and the way of dealing with the problem is more traditional, and there are the disadvantages of low efficiency and low technological content. Low technical content and other disadvantages. Nowadays, people facing problems will choose the power of technology to help promote the implementation of the plan, social networks (virtual communities) composed of digital platforms into the real space, the masses, the environment, the problem of linkage, so that the various organizations are not restricted by the spatial environment to participate in, improve the efficiency of activities to improve the scale of participation, and constantly influence the way of thinking and practice. There are three core actors in pastoral creation: pastoral volunteers, pastoralists, and third-party organizations (enterprises, designers, etc.) working together to create pastoral areas. The pastoral volunteers are the link between the herders and the third-party organizers, actively cooperating with them to mobilize the organizations and promote the activities. As the grassroots base, pastoralists are the main body of the activities and need to provide timely feedback to the other two parties and actively participate in them. The third-party organizers are collaborative production enterprises with a commercial nature, which help pastoral areas to obtain income and realize it, and carry out propaganda and mobilization of pastoralists, which is the basis for maintaining their participation and motivation. In addition to these three core organizations, there are other organizations that are involved in the process, creating a collaborative organization that remains open and free.

4.3. Collaborative Exposure Analysis

At the heart of every collaborative organizational activity is a contact, which can be defined as an interaction between people and material or non-material things in order to

create value. Pastoralism aims to improve the lives of pastoralists and the pastoral environment through a series of activities mediated by relevant resources. Ezzo. Mancini summarized the collaborative engagement as four characteristic dimensions: active participation, collaborative participation, strength of social relationship, and strength of personal relationship to evaluate the engagement criteria, and the concept of social innovation in pastoral creation lies in the collaboration between the pastoralists and the parties to bring positive effects to the pastoral development and pastoral life. In the early stage, all parties initially collaborate and set goals, and volunteers, designers and experts provide herders with relevant knowledge and concepts to mobilize herders' motivation to participate in relevant activities. In the middle stage, the relevant activities need to be implemented, a relevant platform should be set up, and the concept of "common governance, common construction and sharing" should be adhered to, so as to rationally utilize the resources of the pastoral area and empower the pastoral ecology. In the later stage, after a certain period of practice, different pluralistic subjects will participate in the activities of pastoral area creation, carry out the maintenance and operation of the pastoral area, create income value, and more and more herdsmen will join in the activities, so that the relationship between herdsmen and herdsmen, between herdsmen and pastoral areas, between herdsmen and the society will be more closely related.

4.3.1. Participant Involvement Approach: PI Map (Participant Involvement)

What needs to be done for individual organizations in pastoral creation activities also varies in the degree of involvement from passive to active. When it comes to collaboration, the degree of collaborative engagement varies from no collaboration at all to highly collaborative. To help us generalize the characteristics of collaborative engagement as well as the evolutionary trajectory, the degree of active participation and the degree of collaborative engagement were intersected as two axes to form the participant involvement approach, the Table 2: PI map (participant involvement) [6].

Table 2. The PI Map (Participant Involvement).

quadrant collaborative contact	A: Served	B: Co-operative	C: Co-productive	D: Self-help
1. Pastoral volunteers - pastoral contacts	At the initial stage of the activities, a collaborative relationship should be established with a low degree of involvement, and the herders belong to the role of being served, while the volunteers and third-party organizations need to mobilize the herdsmen's motivation to participate in the construction of	The activities in this quadrant are still low-involvement and require the current highly-involved organizations of pastoralists, volunteers, and third-party organizations to design, manage, and create a common operational concept before the actual activities can be carried out.	In the middle and late stages of the activities, the herders, volunteers and third-party organizations reached a common concept and management model in the early stages of the collaboration, and were highly involved in the actual activities, with all parties actively participating in the collaboration to achieve a state of co-production.	In the later stages of the pastoral creation process, based on a series of previous activities, each organization spontaneously carries out operation and maintenance, builds a digital platform, improves the efficiency of the activities, helps the herdsmen to make profits, and each
2. Third-party organizations - pastoralist contacts				

pastoralist areas.		organization is highly involved in the practical activities, and can independently complete some of the activities.
3. Third-party organizations - pastoral volunteers		

4.3.2. Interaction Quality: IQ Quality (Interaction Quality)

A deeper look at interactions in collaborative encounters reveals differences in the strength of affective encounters in terms of both social and personal relationships. Therefore, intersecting the axes of social and personal relationship strength as two variables creates the Interaction Quality; the Table 3: IQ map, which captures the nature of interactions in different collaborative encounters and emphasizes collaborative encounters based on the quality of social relationships.

Table 3. The IQ Quality (Interaction Quality).

quadrant Collaborative engagement	A: Low-intensity personal relationships and weak social relationships	B: High-strength personal relationships and weak social relationships	C: High-strength personal relationships and strong social relationships	D: Low-intensity personal relationships and strong social relationships
1. Pastoral volunteers - pastoral contacts	In the pre-organizational establishment stage herders' understanding of the activities created by the pastoral area, the investment of time and energy is not much, and the need for volunteers and third-party organizations to carry out a pre-introduction.	In the mid-term stage, herders are involved in pastoral creation driven by volunteers and third-party organizations, a model that requires all parties to put their feelings into the initial planning of pastoral construction.		
2. Third-party organizations - pastoralist contacts				At a later stage, in a "top-down" organization, the format of the event becomes more open, lowering the barriers to entry and
3. Third-party organizations - pastoral volunteers			In the middle and late stages of the activity, a relatively strong social relationship is established between the pastoral volunteers and the third-party organization, and a great deal of emotion, time, and energy is invested in pastoral-created activities, based on previous project planning, to advance the activity.	emotional needs, and more programmatic organizations are involved in the event, relying on digital platforms to achieve the purpose of the event.

5. Design Strategies for Pastoral Creation from the Perspective of Social Innovation

5.1. Socialization of Pastoral Spaces

The pastoral area, as a physical space, is a vehicle that contains the various organizations of social innovation. Various organizations need to communicate with each other and establish mutual trust, and the mutual trust relationship is the basis for the creation of pastoral areas. The daily production and life of herders cannot be separated from the outdoor grazing space, daily activity space and public service space. Continuously building and improving the relevant pastoral activities and service systems to provide herders with an open and comfortable space for their daily activities will facilitate the integration of herders and various organizations, forming a shared social space in the pastoral area.

In the process of creating pastoral areas, it is necessary to have a deep understanding of the local pastoral culture, and to build places for sharing and exchanging between pastoralists and herders, or between herders and various organizations; relevant pastoral activity spaces can be built, and pastoral activities can be held from time to time to enrich the content of the activities. Grassland can be arranged in the corresponding space, and grazing can be rationally planned. Carry out cultural theme activities as an opportunity to publicize minority cultures. Regularly hold lectures and invite professionals to publicize knowledge related to animal husbandry. Create an ecological park in the pastoral area and guide the herders to move around in the space and communicate with each other.

The construction is based on the planning of the herders' circle of life, and the layout of education, sports, medical care, culture, welfare, transportation and other related public facilities in the herding area, including schools, herders' activity rooms, herders' propaganda rooms, health organizations and transportation stations. It guarantees that herders can conveniently enjoy relevant basic services, and designs relevant facilities and venues based on the principle of openness and mutual assistance, so as to enable herders to contact and communicate with different organizations, enhance cohesion among herders, improve the quality of their production and life, and maintain the harmonious and stable development of pastoral areas.

5.2. Branding of Pastoral Resources

In response to the current problems and needs of pastoral areas, local resources should be combined and fully utilized to identify opportunities for collaborative interventions and innovations for sustainable development of pastoral areas.

Beef and mutton in Inner Mongolia, as an advantageous product with regional characteristics, has a certain degree of popularity, but it has not created brand characteristics to make the product better circulated in other regions. We can through the participation of all parties, combined with the local culture from production and packaging to the promotion of sales, the introduction of new brands, new products in line with the contemporary fashion aesthetic and both national characteristics, prompting the development of pastoral economy.

The pastoral area of Ulat Houqi is in the frontier zone, with peculiar topography and landscape, multiple natural landscapes from grassland to desert, combined with local culture, to create a cultural tourism brand unique to the characteristics of the pastoral area. Part of the suitable area developed as a tourist area, with nomadic culture as the theme, from the tourists' clothing, food, housing and transportation and other perspectives of the design and planning, so that tourists do not have the feeling of visiting, but rather to allow tourists to integrate into the context of the tourists to bring visitors to the immersive travel experience.

With the progress of tourism, the market of cultural and creative products is bound to develop as well. Located in the Mongolian belt, the pastoral area has many resources for cultural industries, and participants are needed to explore the national culture, com-

bine the manufacturing technology of modern product design to meet the production and consumption needs, and reflect the national characteristics in all aspects of the products, such as the color, form and materials. For example, the local cultural heritage Gobi clay sculpture, taken from the local red gum clay, visitors can be under the guidance of craftsmen, through the participation of clay sculpture sculpture shaping, enhance the tourists' participation in the sense of conviction, so that the national culture through the language of design to better inheritance, to create a unique local cultural brand products.

5.3. Digitization of Pastoral Services

China is currently in an era of high-speed informatization, and the development of Internet technology and the popularization of terminal intelligent devices have substantially improved the efficiency of human life. The construction of a participatory service platform, with the advantages of timely push, popularity and ease of use, can provide a convenient way for pastoralists to participate in the management of affairs, promotion and marketing, information interaction and other behaviors.

Establishing online pastoral affairs platform, through timely release of pastoral news, introduction of pastoral activities, public announcements and other pastoral information on the platform, so that herdsmen can timely understand the dynamics of the pastoral area, and browse and give feedbacks, and all the parties can communicate online on the platform to form a pastoral network community, and improve the efficiency and enthusiasm of herdsmen's participation in the management of affairs. In the aspect of life, it builds a service platform belonging to the pastoral area, and relies on the GPS positioning system to design the pastoral area map, locate the basic living facilities in the pastoral area, as well as the location information of the livestock, so as to make the herdsmen's herding activities and the pastoral area's life services more convenient.

Nowadays, shopping methods such as "live streaming", "online e-commerce" and "new retail" have become the wave of the information age, and APP platform as a carrier builds a more direct interactive bridge between users and enterprises, buyers and sellers. APP platform as a carrier, builds a more direct interaction bridge between users and enterprises, buyers and sellers, so that shopping is no longer restricted by time and space. In the pastoral area, the terminal mobile device can be used as a medium, through the relevant enterprises, organizations and herdsmen to participate in the pastoral animal husbandry products on the Internet for sale, so that the original failure to keep pace with the times of the pastoral products, through the Internet media more popular projection in the people's field of vision, thus enhancing the pastoral brand image and sales, herdsmen's income has been guaranteed. As the pastoral area economy continues to progress, part of the income can be invested in ecological environment construction, so that the pastoral area's economic development is sustainable.

5.4. Participatory Pastoralism

In order to promote the collective prosperity of the pastoral economy, encouraging herders to form cooperatives is an important social innovation strategy. Through cooperatives, herders are able to effectively pool their resources, jointly manage and operate their businesses, and enhance the cohesion of the collective economy. Cooperatives not only provide herders with shared equipment and facilities (e.g., cattle and sheep pens, feed storage facilities, processing equipment, etc.), but they can also introduce advanced technical support to improve the efficiency of herding production and product quality. For example, cooperatives can introduce modern farming techniques, pest control techniques or provide technical training to help herders master more scientific farming methods, thereby improving the yield and quality of livestock products.

In addition, cooperatives can unify the procurement of feed, veterinary drugs and other supplies to reduce herders' production costs, and they can also break the intermediary hierarchy by centralizing the sale of products, directly connecting them to the

market and raising herders' income levels. In terms of expanding market channels, cooperatives are also able to help herders develop a wider sales network, such as through e-commerce platforms or joint participation in exhibitions and sales activities, to expand the market visibility and sales range of products. Through the advantage of collective strength, cooperatives help to enhance the bargaining power of herders, enabling them to occupy a more favorable position in the market, thus promoting the common development and stability of the pastoral economy.

In order to strengthen the social security system in pastoralist areas, the establishment of community mutual funds is a highly significant initiative. Pastoralist areas are often exposed to natural disasters, sudden epidemics or other unforeseen risks, which may have a significant impact on the lives and production of herders. Therefore, the establishment of a flexible and efficient mutual aid fund can provide herders with timely financial support in the event of emergencies and reduce their economic losses caused by disasters or accidents. For example, when natural disasters such as droughts, floods or blizzards occur, a mutual fund can quickly provide financial assistance to affected herders to help them resume production and life. In addition, the fund can be used to support herders' emergency medical expenses and treatment of sudden illnesses, ensuring that herders can receive timely relief when they face sudden health problems.

In addition to emergency assistance, mutual aid funds can also be set up as social security platforms for long-term development, helping herders to establish savings plans, pension funds and so on, in order to enhance their quality of life and level of protection. Through this fund mechanism, herders can not only feel the support brought about by social mutual aid, but also enhance community cohesion and a sense of mutual trust, promoting the harmonious and stable development of pastoralist societies. The implementation of mutual aid funds requires the joint participation of the Government, non-governmental organizations and local communities, and through the establishment of a scientific and reasonable management mechanism and norms for the use of funds, it ensures that the funds are transparent and fair, and that they truly bring substantial help to herders.

6. Conclusions

This study proposes a design strategy for pastoral area creation based on social innovation theory by researching and analyzing pastoral areas in Ulat Hou Banner, Inner Mongolia. With the advancement of social change and modernization, the development of pastoral areas is facing a series of urgent problems, such as ecological degradation, social alienation, lagging economic development, and single production mode. The traditional "top-down" policy planning has gradually failed to meet the diversified needs of herders, and social innovation, as a new governance model, provides new ideas for the sustainable development of pastoral areas.

By applying the theoretical framework of social innovation design, this paper proposes a pastoral design strategy based on "co-construction, co-management and sharing". By promoting collaboration among herders, volunteers and third-party organizations, facilitating information flow and resource sharing, and strengthening herders' sense of social participation, the ecological, economic and cultural revival of the pastoral area will be achieved in multiple dimensions. In this process, the production and living environment of herders has been improved, social relations have been gradually rebuilt, and ecological restoration has achieved certain results. Social innovation design not only brings technological innovation and management mode transformation to pastoral areas, but also stimulates the autonomy and creativity of herders and promotes the accumulation of social capital. However, the road of social innovation created in pastoral areas still has a long way to go. In the future, with the improvement of policies and the deepening of social innovation design concepts, the development of pastoral areas is expected to break through the current bottleneck and build a more open, inclusive and sustainable

ecosystem. It is hoped that this study can provide a reference for rural revitalization and social innovation in other ethnic minority areas and even in the whole country, and promote the comprehensive social and economic development in all parts of China, especially in remote pastoral areas.

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