

# Study on "Shared Farm" Pastoral Care Model in Northwest Sichuan

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## Abstract

**This paper explores the "Shared Farmstead" pastoral care model in the Northwest Sichuan area, aimed at addressing the challenges of population aging and uneven rural development. By renovating vacant houses to develop distinctive elderly care farmsteads, it achieves a win-win situation among the government, collective economic organizations, farmers, and consumers. The study analyzes the model's current status, structure, and safeguard mechanisms, proposing strategies in information management, policy and regulation, elderly care standardization and digitalization, and benefit distribution to promote sustainable development, meet diverse elderly care needs, and enhance rural economic growth and social progress.**

## Keywords

**Sharing Farm; Pension Model; Rural Elderly Care.**

## 1. Introduction

As the issue of population aging intensifies, our country is transitioning from a rapidly aging society to an even faster aging one. According to United Nations standards, we have entered the stage of moderate aging. The aging population poses a severe challenge to economic growth models and brings significant issues to societal and economic development.

The government and state highly prioritize the aging population issue, adopting measures through policies and funding. The academic community has proposed various strategies, exploring how to scientifically construct an elderly care mechanism that aligns with national conditions. Social capital investment in the elderly care industry is continuously increasing, and our country has initially established an elderly care system that combines home care, community care, and institutional care.

Under the rural revitalization strategy, the rural tourism elderly care industry has gradually emerged. <sup>[1]</sup>The "Shared Farmstead" emerges as a new project in elderly care. It involves renovating vacant houses in rural areas on the basis of retaining farmers' ownership, developing into elderly care farms with characteristics such as pastoral life, rehabilitation, and cultural creativity, supported by the internet and IoT, achieving a "win-win" among the government, collective economic organizations, farmers, and urban consumers.

However, during the rural revitalization process in the Northwest Sichuan area, issues such as population outflow, resource idleness, and hollowing out persist. <sup>[2]</sup>The "Shared Farmstead" pastoral care model has significant advantages in this context, fully respecting the current rural development status and traditional customs, guiding farmers to activate resources, participate in entrepreneurship or develop tertiary industries, increasing farmers' income, and enhancing market and operational awareness. <sup>[3]</sup>This model offers a viable solution to aging issues and allows for the small-scale, innovative development of the farm economy under unified planning, avoiding the destruction of the agricultural production environment by excessive urbanization.

## 2. Development Status

Sichuan Province, boasting superior natural conditions, profound historical and cultural depths, and vibrant customs, confronts notable challenges in rural development due to its status as a major agricultural and rural population province in China. Bin Zou<sup>[4]</sup> advocates for promoting eco-farm industries in Sichuan, driving urban-suburban tourism and other sub-industries to address employment and idle farmland issues. Zhengqin Luo 's<sup>[5]</sup> analysis on Sichuan's tourism for poverty alleviation highlights rural tourism's positive impact on constructing new rural areas. Yumei Chen<sup>[6]</sup> observes the lag in tourism behind cultural industries, suggesting the development of unique rural tourism resources to boost income. Peng Zhou<sup>[7]</sup> analyzes the distribution of the aging population, suggesting localized elderly care development. Jing Huang<sup>[8]</sup> explores constructing pastoral complexes in Sichuan's western hilly areas, with Jiang Tao investigating rural land use in Mianyang's Santai County for revitalization paths. Jiajun Chen <sup>[9]</sup> further explores agri-tourism integration in Jian'ge County's Wuzhi Village, examining its role from poverty alleviation to rural revitalization strategy.

Other provinces have explored pathways to accelerate the modernization transformation of rural agriculture, with shared farmsteads, a product of combining the shared economy with agricultural economy, being a focal point of research. Jianping Ye<sup>[11]</sup> and others believe Hainan can adopt rural revitalization models from Germany and Taiwan, using policy support to develop this innovative tool, exploring its framework. Ersheng Zhang<sup>[12]</sup> and others designed various micro-models for Hainan's shared farmsteads; Haiwa Li's<sup>[12]</sup> case studies on Hainan suggest further optimization in rural living environments, talent, and management to foster development. Xiaolei Chen<sup>[14]</sup> argues for enhancing the developmental pattern of Suzhou's shared farmsteads to maximize their economic growth potential. Cuijun Li<sup>[15]</sup> analyzed COVID-19's impact on Wuhan's shared farmsteads, suggesting the integration of digital agriculture, 5G, and blockchain technologies to revitalize poor villages post-pandemic. This indicates an active exploration in utilizing rural resources for revitalization, with shared farmsteads seen as a crucial tool in addressing rural challenges, yet requiring optimization in construction, operational elements, and developmental patterns, often overlooking the elderly care function, especially in initial stages in Sichuan, lacking a complete development framework and further exploration in integrating aging solutions with shared farmstead construction.

Due to the early entry into the aging society abroad, rich research has been carried out on the positive significance and realization of the pastoral pension model in improving the quality of pension. Biggs et al<sup>[16]</sup>, argue that maintaining good social communication skills is effective in maintaining the physical and mental health of older adults, and that community interaction can improve the cultural and collective identity of older adults. Bernard<sup>[17]</sup> has shown that rehabilitative leisure activities have a positive effect on accessibility and recognition in older adults. At the same time, many foreign scholars have put forward the concept of "rehabilitation garden" for the physical diseases of the elderly. Among them, Claire Cooper Marcos believes that being in close contact with nature is an effective way to relieve stress, and it is of great help to the human body to self-heal and self-healing. At present, the United Kingdom has built more than 50 beautiful environment, suitable for the elderly retirement villages, to provide high-quality elderly care services for the elderly; Japan's construction of elderly care facilities follows a comprehensive consideration of the ecological environment; in Denmark, the concept of "self-help" retirement communities has been widely promoted, the elderly can live in the form of rental in the elderly manor on the outskirts of Pingchou Fertile City, live with other elderly people, enjoy personalized handicraft workshops, gardens and small farms.

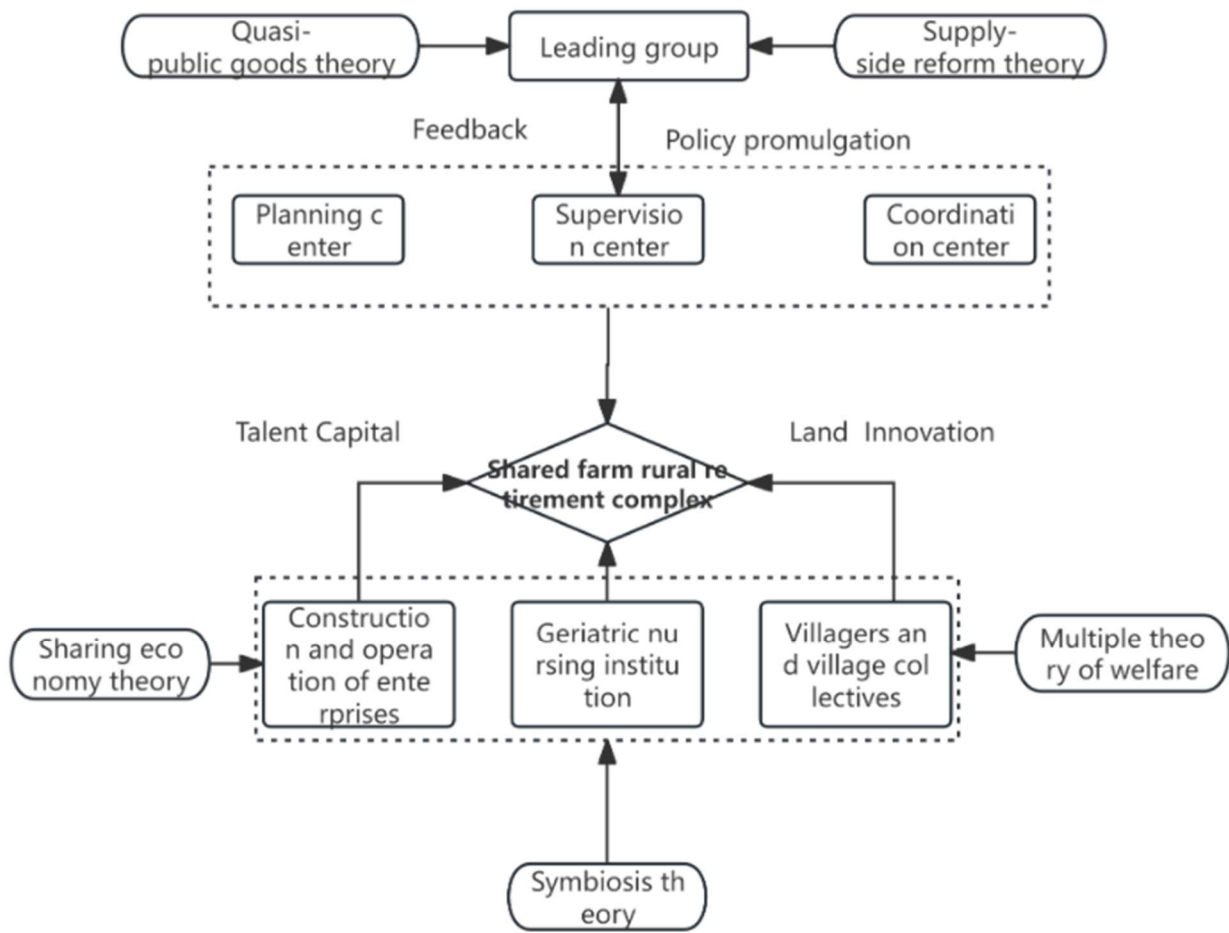
In summary, the path of using rural resources to revitalize the countryside has been actively explored. At home and abroad, the construction of shared farms is regarded as an important tool to solve rural problems, but at present, the allocation of factors in the construction and

operation of shared farms still needs to be optimized, the supporting guarantee mechanism needs to be improved, and the development pattern needs to be improved, and the function of pension is ignored in the practice of the model.

### 3. Pattern Construction

#### 3.1. The Operational Framework of the "Shared Farm" Rural Elderly Care Model

To ensure the smooth construction of "Shared Farmsteads," it is necessary to establish an effective organizational structure to ensure the implementation and efficiency of policies. This section introduces the "Shared Farmstead" pastoral care model, consisting of an organizational layer and an application layer. The specific structure is illustrated in Fig. 1.



**Fig. 1** The operational framework, theoretical basis, and mechanism of the "shared farm" rural elderly care model

In the organizational layer of the "Shared Farmstead" pastoral care model, the government and relevant departments play crucial roles, aiming to enhance service efficiency and foster the development of elderly care services based on quasi-public goods theory. This necessitates detailed institutional arrangements and policies. Talent, capital, land, and innovation are pivotal for the operational layer, where supply-side reform theory underscores the government's responsibility to ensure adequate supplies of these elements, promote their enhancement, and formulate appropriate regulations, standards, and policies to improve

overall productivity. Organizational structures like the "District Shared Farmstead Pastoral Care Joint Management Leadership Group" drawn from health, social security, and civil affairs departments are established to formulate and implement policies. To operationalize these policies effectively, entities like the "District Shared Farmstead Pastoral Care Guidance Center," "Coordination Work Center," and "Elderly Service Regulation Center" play key roles in quality control, community coordination, and support.

The application layer, guided by symbiosis theory, integrates elderly care products and services with local resources, aiming for a sustainable, self-developing service ecosystem that considers urban elderly's diverse needs. It designs functional modules based on shared economy principles for diversified management of elderly care at the farmsteads. Under welfare pluralism theory, it leverages multi-stakeholder collaboration for optimal utilization of professional care resources within and around the farmsteads, creating a nested core for the elderly care model. This structure meets diverse elderly care needs, enhancing the model's efficacy and sustainability.

### **3.2. The Organizational Layer Construction Content of the "Shared Farm" Rural Elderly Care Model**

The "Shared Farmstead" pastoral care model's organizational layer involves interactive roles and connections among stakeholders from health, cultural tourism, agriculture, finance, and urban-rural development departments, forming a leadership group. This group is tasked with comprehensive planning, coordination, and policy formulation for the model, ensuring orderly, rational, and sustainable development. It addresses inter-departmental and stakeholder coordination, policy, and regulation development to enhance service quality and efficiency, encouraging societal participation for innovative development. Additionally, it establishes mechanisms for enterprise and institutional cooperation and selects third-party regulatory bodies, emphasizing professional guidance and operational management while maintaining independence from traditional administrative structures.

Furthermore, to achieve precise resource sharing and demand localization, establishing an internet-based big data platform for shared elderly care becomes the core of the shared elderly care model. The leadership group could spearhead the creation of a smart platform, utilizing big data and internet technologies to integrate basic information of the elderly and provide matching service information and resources, achieving precise alignment of demand and supply, as illustrated in Table 1. The platform centers on shared elderly care services, connecting various service departments and integrating personal information, including but not limited to residency, social insurance, financial affairs, daily consumption, travel patterns, and health care data. Through data integration, a comprehensive and dynamic personal elderly care information database is formed, aiding in the precise matching of elderly care services. Additionally, it integrates various service information platform resources near the farmstead, such as shopping, medical, transportation, dining, education, social entertainment, etc., to fully share elderly care service demand and supply information. The establishment of a shared elderly care platform breaks through time and spatial limitations, promoting the scaled use of elderly care resources. Through the accumulation of service data, an elderly care service evaluation and prevention control system is gradually constructed, forming a complete elderly care service loop, providing more comprehensive and precise elderly care services.

The Planning Center refers to the leadership group as the driving force, responsible for formulating the overall development strategy and positioning of the "Shared Farmstead" pastoral elderly care complex. By deeply understanding market demands and the elderly's care needs, it sets long-term development goals, clarifying the complex's positioning and service features. This aids construction enterprises in aligning with market demands and ensuring effective elderly care service implementation. In strategic planning, the leadership group

considers the complex's long-term growth, including development scale, regional layout, and strategic partners, aiming for sustainable development and expanded influence. The leadership group engages in extensive communication and coordination with internal departments and external stakeholders involved in the "Shared Farmstead" construction, gathering opinions to form consensus and enhance synergy. It also develops detailed implementation plans and schedules, translating strategic plans into concrete actions, specifying goals and tasks for each phase to ensure feasibility and effectiveness. Additionally, it plays a role in policy guidance and innovation, formulating policies to encourage enterprise and farmer participation in building and operating the "Shared Farmstead" through incentives and reduced administrative procedures. The leadership group's main functions in strategic planning include market research, development goal clarification, and the creation of implementation plans and schedules.

**Table 1.** Shared Elderly Care Big Data Information Platform

Name	Content	Specifically cover	Information provider
Elderly needs database	Basic information	Age, gender, income level, educational background, family situation, and also include personal characteristics such as job skills or life skills that can be publicly displayed.	Community
	Elderly care service demand information	Basic life service needs Spiritual and cultural needs Personalized needs for elderly care	Society
	Health record information	Various health indicators, diseases, medical history, physical examination reports over the years	Health center
	Endowment resource information sharing	Information associated with social administrative functions	Administrative department
Elderly service supply database	Elderly care services to provide staff information	In the regional scope, personal information related to elderly care services covers age, gender, professional qualifications, past service experience, personal service evaluation, etc	Human resources department
	Farm elderly care supply platform information	Gather information about farms that can provide elderly care services	Elderly care service unit
	Endowment service resource sharing	A social information platform that integrates life service data of all parties, and provides information about social institutions of elderly care services within the region.	Health department
Elderly care service equipment support data information	The list of auxiliary elderly care tools such as smart wearable devices and smart terminal devices and their providers involve the steps and costs of individual application, as well as previous user experience evaluation and other information.	Third party elderly care technology service company	

The Coordination Center primarily focuses on leveraging the core group's strengths, formed by members drawn from various departments within the leadership group, to coordinate in areas

like homestead and collective village land requisition and developing elderly care services within the "Shared Farmstead" ecosystem. By integrating local resources, including village cohesion and autonomous foundations, it initiates various forms of civil organizations, implementing civil affairs and health policies across management grids to promote the establishment of aggregated villages and enhance the efficiency of elderly care service provision at farmsteads. It actively collects feedback on operational challenges from institutions, businesses, village collectives, and residents, as well as on elderly care resource planning, providing targeted input for the leadership group to formulate relevant policies. The Coordination Center plays a vital role in facilitating the smooth operation of "Shared Farmstead" pastoral elderly care services, promoting rural development, resource integration, and sharing, while communicating issues and needs to the leadership group for policy formulation. Additionally, due to the multi-party cooperation involved in the "Shared Farmstead" complex, including government, construction companies, suppliers, and service providers, each stakeholder has their own interests. The leadership group navigates these interests to ensure fair resource allocation and distribution, negotiating and communicating to prevent conflicts and ensure equitable interest distribution, thereby respecting and safeguarding the rights of all parties involved.

The Regulatory Center, acting as an independent third party, is tasked with overseeing the stakeholders in the "Shared Farmstead" pastoral elderly care model's application layer. This includes validating entry qualifications, supervising service operations, and performance. For effective oversight, the center employs regular and irregular methods, such as on-site and off-site supervision, online evidence collection, and offline research. Supervision results are compiled into written reports for the leadership group, aiding in grading, subsidy allocation, and the development of reward and punishment systems. The center aims to ensure participants comply with regulations, provide high-quality services, and oversee and evaluate the quality and effectiveness of elderly care services. Through regular inspections, audits, and assessments, it ensures operations comply with legal and policy requirements, supervising service quality across various aspects and encouraging feedback mechanisms to enhance service satisfaction and quality.

### **3.3. Application Layer Construction Content of the "Shared Farm" Rural Elderly Care Model**

#### **3.3.1. "Shared Farm" Rural Elderly Care Model Eco-sphere**

The Supervisory Center, as an independent third party, oversees participants in the "Shared Farmstead" pastoral elderly care model's application layer, including credentialing, service operations, and performance monitoring. It employs regular and irregular supervisory methods, both onsite and offsite, including online evidence gathering and offline research. Results are compiled into reports for the leadership group, aiding in rating, subsidy determination, and policy formulation. The Center ensures compliance with regulations, high-quality service provision, and evaluates elderly care quality and outcomes. It also plays a crucial role in policy guidance and innovation, encouraging private sector participation and ensuring fair resource distribution among stakeholders, including medical care institutions, construction firms, village collectives, villagers, and the elderly, fostering a sustainable development of the "Shared Farmstead" ecosystem.

##### **(1) Analysis of Government Behavioral Characteristics**

Based on the above description of the leadership group, summarize the behavioral characteristics of the government. Firstly, the government plays a promoting role in the construction of the "Shared Farm" rural elderly care service complex. The government is responsible for planning and formulating relevant policies to provide policy support and resource guarantee for the "Shared Farm" rural elderly care service complex. The government

coordinates with relevant departments during the planning phase to ensure consistency between the overall development direction and policy objectives of the elderly care service complex. Secondly, the government plays a regulatory and coordinating role in the construction of the "shared farm" rural elderly care service complex. The government is responsible for supervising and managing the operation of elderly care service complexes, ensuring their legality and compliance, and safeguarding the rights and interests of the elderly. The government is also responsible for coordinating with relevant departments, promoting the integration and optimization of resources, and promoting the orderly development of elderly care service complexes. Thirdly, the government plays the role of an information provider in the construction of the "shared farm" rural elderly care service complex. The government provides relevant information on comprehensive elderly care services to the general public and the elderly, including policies and regulations, service items, tariff standards, etc., to help the elderly understand and choose suitable elderly care services. Fourthly, the government actively guides and supports the participation of private capital in the construction of the "shared farm" rural elderly care service complex. The government encourages social forces to invest in the establishment of elderly care service complexes, provide various preferential policies and financial support, in order to attract more social capital to participate in the construction and operation of "shared farms" rural elderly care service complexes. Fifthly, the government will strengthen the construction of public facilities and service support in the construction of the "Shared Farm" rural elderly care service complex. The government invests funds and resources to improve the infrastructure construction level of farms, including roads, communication, water supply, power supply, etc., to provide a good basic environment for the elderly care service complex. At the same time, the government also strengthens the construction of community service facilities, including medical institutions, cultural activity centers, social venues, etc., to provide convenient living services for the elderly.

## (2) Analysis of behavioral characteristics of construction enterprises

Firstly, the construction enterprise is the operating entity of the elderly care service complex. These enterprises are usually institutions or enterprises specializing in elderly care services, with rich experience and professional knowledge, able to provide comprehensive and high-quality elderly care services. Responsible for the planning, construction, operation, and management of the rural elderly care service complex, ensuring the effective operation and sustainable development of the elderly care service complex. Secondly, participating entities in the construction of enterprises focus on personalized elderly care services. Fully consider the different needs and characteristics of the elderly, provide diversified and customized elderly care services, and meet the needs of the elderly for different lifestyles and health management. Maintain close communication with the elderly and their families, understand their wishes and needs, and provide personalized service plans accordingly. Thirdly, participating enterprises emphasize the integration of technology and elderly care. Actively introducing advanced technological means, such as smart devices, health monitoring systems, remote healthcare, etc., to provide convenient elderly care services for the elderly. Through the application of technology, real-time monitoring and management of the health status of the elderly can be achieved, providing accurate health services. Fourthly, provide diversified and customized elderly care services to meet the diverse needs and characteristics of the elderly, in order to adapt to their diverse lifestyle and health management needs. At the same time, we attach great importance to the sustainable development of elderly care service complexes, and ensure their long-term operation through measures such as optimizing management, improving service quality, and expanding business areas. Fifth, the participating entities should establish close cooperation between enterprises and other participating entities such as the government and communities. Collaborate with government departments to jointly develop policies and standards for elderly care services, ensuring the compliant operation of elderly care service

complexes. At the same time, they cooperate with the community, establish good interactive relationships with community residents, provide elderly care services needed by community residents, and promote community co construction and sharing. Construction enterprises have behavioral characteristics such as operational entities, personalized services, technological integration, social responsibility and sustainable development, and cooperation with other participating entities. They are the backbone of the "Shared Farm" rural elderly care service complex, providing high-quality and convenient elderly care services through professional, personalized, and technological services.

### (3) Analysis of behavioral characteristics of elderly medical care institutions

Firstly, elderly medical care institutions are professional medical and elderly care institutions within the "shared farm" rural elderly care service complex. Elderly medical care institutions have a professional medical team and nursing staff, with rich experience and professional knowledge in medical care services. Its main task is to provide comprehensive and high-quality medical and elderly care services for the elderly, including health assessment, disease treatment, rehabilitation care, etc. Secondly, elderly medical care institutions focus on personalized elderly care services. They fully respect the needs and wishes of the elderly, and provide personalized elderly care services based on their health status and lifestyle habits. They maintain close communication with the elderly and their families, understand their needs and wishes, and customize services accordingly. Thirdly, elderly medical care institutions emphasize a service model that combines medical care and elderly care. They organically combine medical and elderly care services to improve the quality of life and health status of the elderly through medical means. Actively introducing advanced medical equipment and technology, providing regular health check ups, health management, and rehabilitation care services, helping elderly people delay aging and improve their ability to take care of themselves. Fourthly, elderly healthcare institutions focus on prevention and health management. They carry out health education activities to help the elderly understand health knowledge and preventive measures, promote their health awareness and self-management ability. They also actively carry out health assessments and monitoring, timely detect and intervene in the health problems of the elderly, and prevent the occurrence and further deterioration of diseases. Fifth, elderly medical care institutions should form close cooperation with the government and other participating entities. Collaborate with government departments to jointly develop policies and standards for elderly care services, ensuring compliance and quality of elderly care services. At the same time, they cooperate with other participating entities such as communities and volunteer service organizations to jointly promote the development and progress of elderly care service complexes, and provide more comprehensive and comprehensive elderly care services for the elderly.

### (4) Analysis of the behavioral characteristics of villagers

Encourage rural residents to participate in the "shared farm" rural elderly care, and invest their resources (such as land, labor, funds, etc.) into the "shared farm" project through investment, participation in management, and other means. Collaborate with the government and enterprises to share elderly care service resources and benefits. This characteristic of participation and sharing promotes the full utilization of resources and the coordinated development of society. The construction of rural farms provides more employment opportunities for rural residents. The construction and operation of "shared farms" require a large amount of labor. By participating in the "shared farm" project, rural residents can find employment near their homes, improve employment rates, and provide a stable source of income for rural residents. The behavioral characteristics created by this employment opportunity contribute to promoting economic development in rural areas and increasing the income of farmers. The "shared farm" rural elderly care model encourages rural residents to participate in the supply of agricultural products and market expansion. Rural residents can

use their own land and agricultural resources to grow organic agricultural products or provide characteristic agricultural products, meeting the needs of the "shared farm" rural elderly care project, while also bringing economic benefits to themselves. The behavioral characteristics of agricultural product supply and market expansion have promoted the development of agriculture in rural areas and increased the income of farmers.

#### (5) "Shared Farm" Benefit Connection Mechanism

The interest linkage mechanism during the construction phase of the "shared farm" is based on the sharing of property rights in the sharing economy. The three elements of the sharing economy are: resource supply and demand, sharing platform, and insufficient resource utilization. In order to establish a stable mechanism for connecting the interests of "shared farms", it is necessary to comprehensively consider the balance of interests among all parties in the mechanism, fully leverage the leading role of the market, and rely on government guidance and supervision to achieve the joint construction of "shared farms" for rural elderly care. By balancing the interests of all parties and promoting each other, a symbiotic effect can be achieved.

In the construction phase, idle rural resources (farmland, forest land, homestead, idle houses, etc.) will be rented and shared, quickly gathering industrial and commercial capital and various rural resources in the form of leasing, building a win-win economic cooperation relationship among three parties, and ensuring the adjustment of the interests between various stakeholders through contracts and guarantees, improving the property income of farmers, and establishing a stable interest linkage mechanism. Due to the long construction cycle and high investment of "shared farms", it is necessary to vigorously develop the stock cooperation system. The specific implementation methods include:

① Investment in Construction and Operation Enterprises: During the construction phase of "Shared Farm", construction and operation enterprises participate in equity investment in "Shared Farm" through funds, talents, high-tech and management methods to achieve flexible use of capital elements, and establish a mechanism for construction and operation enterprises to participate in the development and management of "Shared Farm".

② Village collective, farmer leasing and equity participation: Farmers are both shareholders and employees in the "shared farm", and participate in labor and operation through land management rights. Village collectives can utilize collectively operated construction land or idle resources, choose to rent or invest in "shared farms", promote a stable community of interests, and develop rural collective economic organizations. This also encourages individual farmers to participate in equity investment in the farm, reduces conflicts of interest, and promotes benefit sharing. Farmers, as owners and employees of the "shared farm," jointly undertake the responsibility of managing the "shared farm" by investing and labor in the contracted management rights of the farm. Village collectives can lease or participate in the use of commercial construction land, idle resource usage rights, or village collective capital to establish stable interest relationships and promote the development of rural collective economic organizations. On this basis, encouraging farmers to participate in the operation of "shared farms" in their personal form has reduced the contradiction of interests and established a mechanism of trust in interests.

③ Participation of elderly medical care institutions: As investors and participating business entities, they cooperate with "shared farms" to build elderly medical facilities and service platforms through capital investment, technical support, and professional services.

④ Government poverty alleviation funds invested: The government and collective organizations play an innovative and leading role in the development of "shared farms", promoting the close connection between "shared farms" and poverty alleviation work. Utilize loans and special poverty alleviation funds to invest in the shares of "Shared Farm", and

leverage these funds to promote the industry. Through various means such as leasing and equity investment, direct stakeholders such as construction and operation enterprises, farmers, village collectives, and consumers can connect their interests and build a closer network of relationships. The "shared farm" relies on the cooperative system to clarify the behavior of stakeholders constrained by the share contract, and stimulates their sense of responsibility. With the support of a market economy, the marketization and institutionalization of stock cooperation behavior have been ensured, thus forming a closer interest connection and a more scientific mechanism for realizing interests.

Establishing an effective interest linkage mechanism is crucial in the joint operation stage of rural elderly care in the "shared farm". At this stage, the "shared farm" rural elderly care needs to achieve mutual consultation and operation among various participating entities, as well as active participation of elderly care consumers. In the operation of "shared farms," construction enterprises are not only the main source of operating funds, but also bear governance responsibilities. In the cooperation stage, the construction enterprise and farmer shareholders jointly establish a corporate governance structure, clarify the allocation of decision-making, supervision, and execution authority, to ensure coordination and rights protection among stakeholders. Farmers can participate in the cooperation of "shared farms" by signing investment or leasing agreements, and obtain corresponding profits as shareholders or partners to achieve the goal of joint operation. Secondly, the "shared farm" provides employment opportunities for local villagers during operation, increases their wage income, and thus improves their interest relationships. At the same time, village level collective economic organizations can participate in farm operations by investing or renting out operational assets, promoting interest linkage, and jointly pursuing value appreciation from all parties.

The joint operation stage of rural elderly care in the "shared farm" requires the establishment of a close interest linkage mechanism between farmers, village collectives, construction and operation enterprises, and elderly medical care institutions on the basis of consultation and joint operation. This linkage mechanism will help achieve win-win development of "shared farms", ensure a reasonable balance of interests among all parties, and jointly create greater economic value and social benefits.

The distribution of benefits in shared farms plays a crucial role in maintaining the stability of the community of interests during the joint operation stage, as shown in Fig. 2. Establishing a fair and reasonable mechanism for distributing benefits is the cornerstone of the interest linkage mechanism, which requires comprehensive consideration of different forms of interest linkage to enhance mutual trust among various interest subjects. In the interest distribution mechanism, industrial and commercial capital serves as the core distribution subject, playing the role of investor and management leader in the "shared farm". In the distribution process, it is necessary to balance efficiency and fairness considerations to incentivize industrial and commercial capital to align with the operational goals of the farm, while constraining its behavior, safeguarding the legitimate rights and interests of other stakeholders, and ensuring the fairness of interest distribution. In the benefit sharing model, two main models can be observed: contract type and equity type. In the contractual model, farmers and village collectives participate in the distribution of benefits through fixed rent and sales income, while in the equity model, farmers, village collectives, and industrial and commercial capital share profits and share stock dividends. These different modes can be flexibly applied according to specific situations to meet the interests and needs of all parties. The mechanism of interest linkage plays an important role in regulating the rights and obligations of stakeholders, helping to reduce opportunistic behavior, enhance stability, and ensure the sustainable operation of "shared farms". The distribution of benefits for rural elderly care in "shared farms" requires the establishment of a fair and reasonable mechanism, considering different forms of interest

linkage, so as to form a good balance of interests among stakeholders such as industrial and commercial capital, farmers, village collectives, and consumers, and jointly promote the long-term stable development of "shared farms".

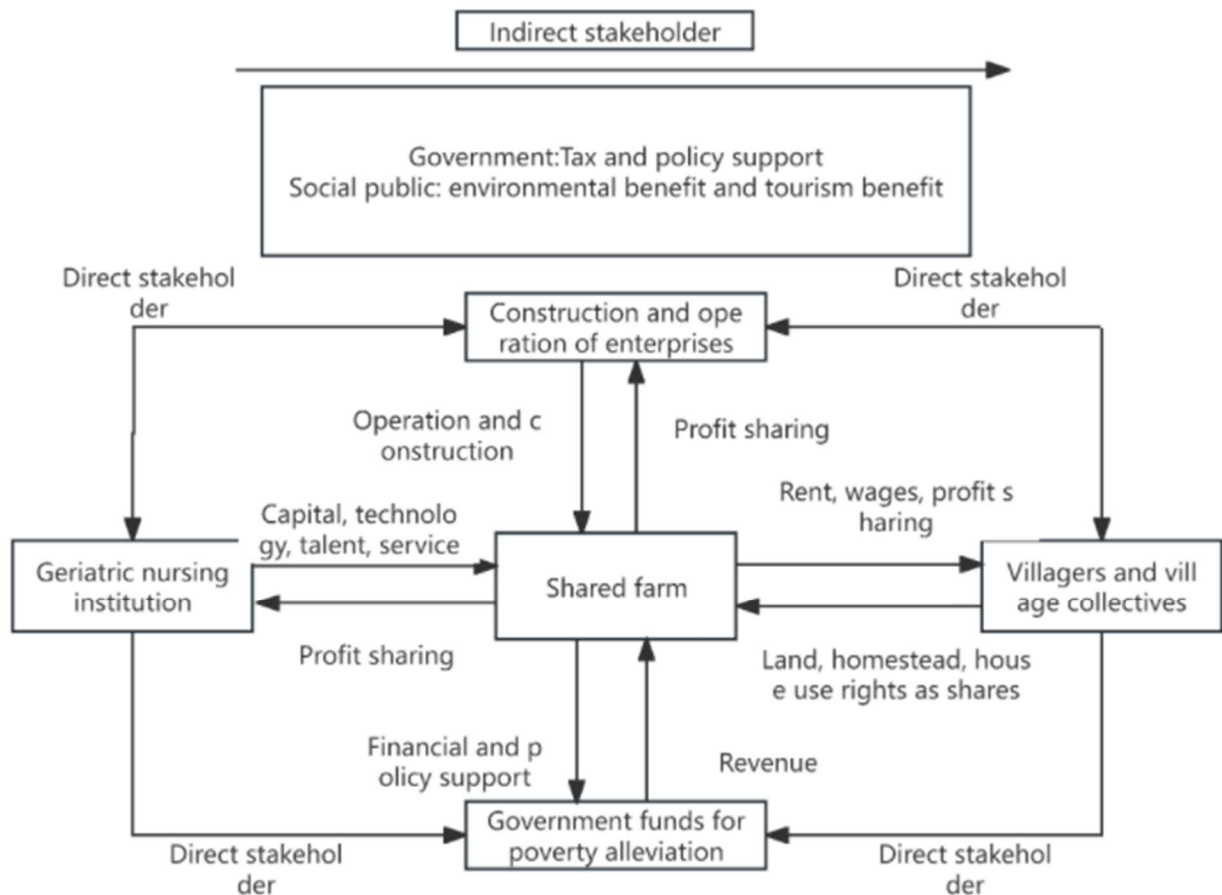


Fig. 2 "Shared Farm" Benefit Connection Mechanism

#### 4. Guarantee Mechanism and Measures for the Rural Elderly Care Model of "Shared Farm"

##### 4.1. Information Management Mechanism

In response to the challenges of an aging society, a set of information management strategies should be developed under the "shared farm" rural elderly care model. Firstly, the establishment of legal protection measures is crucial to ensure the privacy and health information security of the elderly through a privacy risk assessment mechanism. This mechanism requires the information collection party to clearly disclose the purpose of the information and obtain the informed consent of the elderly, while adopting de-identification technology to protect the privacy of the elderly.

Secondly, the standardization of information security management is the cornerstone of maintaining personal privacy. Adopting data desensitization and encryption measures to reduce data localization accuracy and ensure privacy and security. By establishing a role permission management system, reasonably controlling data access, implementing multiple storage and regular backup strategies for data, effectively reducing the risk of data loss. At the same time, establish a hierarchical approval process, clarify the information query permissions

of employees at all levels, strengthen information retention, and improve the efficiency and reliability of information security management.

Finally, the constructed information collection system aims to solve the problem of information silos and improve the reliability and security of information. Classify and collect information based on business types, adjust user permissions based on shared capacity, and optimize the storage and access of information resources using cloud computing and blockchain technology. This strategy promotes information collaboration among government, medical institutions, service centers, and other parties, strengthens information quality control, ensures the accuracy and reliability of information, and effectively supports the information management needs of an aging society.

#### **4.2. Policy and Regulatory Protection Mechanism**

In promoting the development of the "shared farm" rural elderly care model, the improvement of policies and regulations, the strengthening of legal and regulatory construction, and the increase in financial support constitute a comprehensive support system. Firstly, the improvement of the policy system aims to guide and promote the construction of the talent pool for elderly care services. By formulating reasonable policies and regulations, it clarifies the personnel configuration and business scope of elderly care service institutions, ensuring the professionalization and standardization of elderly care services. In addition, establish a comprehensive supervision mechanism to ensure the effective implementation of policies, and develop scientific service standards and quality evaluation systems based on the reality of aging and regional differences.

Secondly, the strengthening of laws and regulations is the foundation for ensuring the rights and interests of elderly care service personnel. It is necessary to clarify the rights and obligations of elderly care service personnel through legislation, incorporate elderly care service talents into the social security system, standardize industry salary standards, and safeguard the legitimate rights and interests of elderly care service personnel. In addition, by providing legal aid and strengthening legal education, the government can enhance the awareness of rights protection among elderly care service personnel, and provide guarantees for the healthy development of the elderly care service talent team.

Finally, increasing financial support is the key to promoting the sustainable development of the "shared farm" model. The government should introduce preferential policies and financing support measures, encourage social capital investment, reduce investment risks by providing tax incentives, loan guarantees and other incentive measures, and establish special funds to support project construction. At the same time, the government should continue to increase financial investment in the elderly care service industry, provide financial subsidies for universities and elderly care service institutions, and support talent cultivation and service quality improvement.

#### **4.3. Standardization of Elderly Care and Digital Security Mechanism**

In order to promote the standardization and digitization of the rural elderly care model of "shared farms", the government needs to strengthen policy support for the implementation of industry standards for rural elderly care services, establish a standard formulation committee, combine the characteristics of "shared farms", fully absorb excellent domestic and foreign standards and actual needs, and ensure the scientificity and applicability of service standards. This should include standards for service quality, safety management, talent cultivation, as well as clear standards for the planning and construction of "shared farms" and service content. Through government guidance, promote the popularization and implementation of standards, establish a supervision and evaluation mechanism, ensure the effective implementation of

standards and timely update and improve them to adapt to the rapid development of the industry.

Secondly, establish an "online+offline" cooperation platform and use the "Internet plus" model to achieve resource sharing and information exchange and improve service efficiency and quality. This includes the use of various software and platforms to achieve intelligent management of elderly care services and optimize service supply. The government should introduce relevant policies to support digital transformation, establish regulatory mechanisms to ensure the safety and reliability of the platform, so that the elderly can enjoy convenient and personalized services, and promote the coordinated development of the elderly care service industry.

Finally, implementing a dynamic evaluation mechanism for the demand for elderly care services that combines medical care and elderly care, based on Maslow's hierarchy of needs theory, to gain a deeper understanding of the diverse needs of the elderly, including basic living care, medical care, psychological support, etc. Elderly care institutions need to conduct physical and mental health assessments for the elderly, provide personalized services, and continuously expand the field of integrated medical and elderly care services. Introduce third-party professional supervision and evaluation to ensure the independence and objectivity of services, widely participate in supervision and evaluation, and promote the healthy development of integrated medical and elderly care services.

By formulating and implementing service industry standards, establishing "online+offline" cooperation platforms, and a dynamic evaluation mechanism for the needs of medical and elderly care integration, the standardization and digitalization level of "shared farms" rural elderly care services can be effectively improved, meeting the diversified health and elderly care needs of the elderly, and promoting the development of the rural elderly care service industry towards higher quality and more intelligent directions.

#### **4.4. Benefit Distribution Mechanism**

In response to the "shared farm" rural elderly care model, a complete set of innovative strategies should be established to achieve diversification of profit models, build a long-term and reasonable benefit sharing framework, and strengthen the collaborative cooperation of all participating parties. Firstly, in order to enhance profitability, "shared farms" should introduce diversified sources of income, including agricultural product sales, agricultural experience activities, handicraft production, etc. At the same time, by combining with the leisure tourism industry, attracting tourists to experience rural life, and improving the market competitiveness and brand influence of "shared farms". In addition, by establishing partnerships with surrounding scenic spots, hotels, travel agencies, etc., we can jointly promote tourism routes and products, achieve resource sharing and complementarity, and further enhance the stability and sustainability of our profit model.

Secondly, establish a long-term and reasonable framework for sharing benefits, promote a balance of interests among multiple stakeholders such as government, enterprises, service institutions, and rural residents, and ensure fair and reasonable sharing of business benefits through cooperative, cooperative, and joint venture models. This requires all parties to clarify their rights and responsibilities through signing cooperation agreements and contracts, standardize the distribution of benefits, decision-making mechanisms, and operational management, establish long-term stable cooperative relationships, and ensure the effective implementation of the benefit sharing mechanism.

Finally, it is crucial to strengthen collaborative efforts among all participating parties. It is necessary to shape new awareness among villagers, promote the concept of sharing, be brave in divesting ownership and usage rights, and share idle resources, traditional skills, skills, and experiences in a paid manner to ensure the effective utilization of resources. It is recommended

to widely promote farmers through various channels such as television, newspapers, and social media, downplay the concept of ownership, highlight the concept of usage rights, and gradually form a unique "sharing" culture. At the same time, establish a multi-party communication mechanism, establish regular coordination meetings or working groups, invite government representatives, construction and operation enterprises, elderly medical care service institutions, and rural resident representatives to participate, jointly discuss issues, formulate policies and action plans, ensure collaborative cooperation among all parties, and promote the sustainable development and long-term benefit sharing of rural elderly care in "shared farms". This series of strategies will promote the narrowing of the urban-rural gap, build a cooperative and win-win elderly care service ecosystem, and provide strong support for the "shared farm" model.

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