

# Research on the Protection and Development of Agricultural Cultural Heritage in Lishui under the Background of Rural Revitalization

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**Abstract:** Against the background of rural revitalization, this study focuses on Lishui's agricultural cultural heritage, analyzing its spatial pattern of core clusters and scattered belts shaped by geographical environment, farming culture and industrial drivers, the three-dimensional protection framework integrating policy, space and industry, as well as dilemmas including inheritance gaps, unbalanced development and inadequate technological adaptation. It explores the coupling path with rural revitalization and proposes recommendations of strengthening inheritance, balancing development and protection, and promoting technological adaptation and innovation. The research fills the gap of regional micro-case studies, provides replicable experiences for similar Two Mountains concept practice areas and heritage-rich regions, and facilitates the in-depth integration of heritage protection, inheritance, utilization with rural revitalization.

**Keywords:** Agricultural cultural heritage; Rural revitalization; Protection and development

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## Introduction

The 2021 Central No.1 Document proposed "taking the path of rural cultural prosperity", identifying agricultural cultural heritage as the core carrier for inheriting rural context and activating rural development momentum, and establishing its in-depth coupling relationship with the rural revitalization strategy. Agricultural cultural heritage is a composite heritage integrating ecological adaptability, cultural inheritance, and economic sustainability. The farming wisdom, biodiversity conservation experience, and folk culture it contains not only align with the core goals of rural revitalization—"prosperous industries, livable ecology, and civilized rural customs"—but also provide cultural support for the realization of ecological product value, serving as a key link connecting rural ecological protection and income increase.

When General Secretary Xi Jinping inspected Zhejiang in 2005, Lishui became a pioneer in practicing the concept of "Lucid waters and lush mountains are invaluable assets". As an important birthplace of this concept, Lishui boasts rich agricultural cultural heritage resources and typical protection practices: the Qingtian Rice-Fish Symbiosis System was selected as one of the world's first and Asia's first Globally Important Agricultural Heritage Systems (GIAHS) in 2005; in 2022, the city designated June 5th as "Lishui Agricultural Cultural Heritage Protection Day"; currently, 4 heritages have been included in the global and national lists of important agricultural cultural heritages. Despite the sound protection momentum, challenges remain: first, protection is dominated by administrative forces with a single approach, resulting in insufficient participation of community residents and weak motivation for living inheritance; second, industrial integration is not in-depth, mainly focusing on sightseeing tourism and sales of primary agricultural products, failing to integrate farming culture into high-value-added industries; third, brand recognition is low with vague differentiated positioning, and no unique "ecology + culture" IP has been formed.

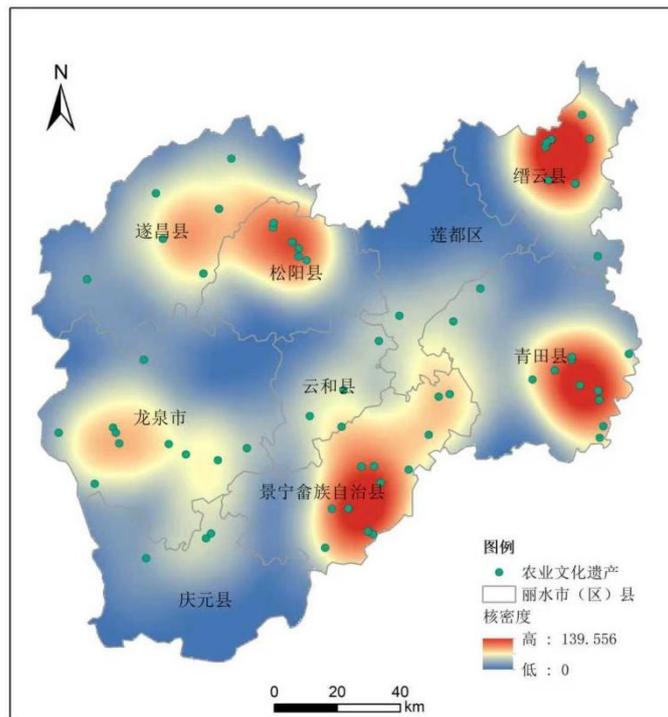
Academic research on the protection and development of agricultural cultural heritage can be divided into three major directions. First, the logical connection between heritage development and rural revitalization: Min Qingwen believes that tourism is one of the dynamic protection approaches for heritage<sup>[1]</sup>, while scholars such as Hang Kan, Wu Bihu, Zhang Ying, and Wang Bojie further explored the integration path between protective tourism development and rural revitalization<sup>[1-5]</sup>; second, specific development models: Chang Xu holds that ecotourism is the best way<sup>[6]</sup>, and Cui Feng proposed three models including eco-museums, ecotourism, and community participation<sup>[7]</sup>; third, guarantee mechanisms and sustainable paths: Zhao Lijun emphasized strengthening

supervision and incentive mechanisms<sup>[8]</sup>, Li Wenhua constructed a protection system from four dimensions<sup>[9]</sup>, and Zheng Jiangmin suggested promoting sustainable development through functional area division and multiple measures<sup>[10]</sup>.

Based on this, this study takes Lishui as a case to explore the protection and development path of agricultural cultural heritage under the background of rural revitalization. The theoretical value lies in filling the gap of regional micro-case studies on the synergy between heritage and rural revitalization, and clarifying the path of transforming ecological advantages into rural revitalization momentum through heritage development; the practical significance is to provide reference for Lishui to formulate living protection plans for heritage, and also offer replicable experiences for rural revitalization in similar national practice areas of the "Lucid waters and lush mountains are invaluable assets" concept and heritage-rich areas, ultimately realizing the in-depth integration of heritage protection, inheritance, utilization and rural revitalization.

### 1. Distribution of Agricultural Cultural Heritage in Lishui

Kernel density index refers to a density distribution map similar to a heat map generated through geographic information systems and statistical tools, which can intuitively reflect the spatial aggregation and density changes of statistical point data. Based on the visualization of the spatial distribution of agricultural cultural heritage in Lishui using kernel density analysis, its spatial pattern can be summarized as a dual-structure feature of "core cluster areas and scattered distribution belts".



Qingtian County constitutes the red core area, the birthplace of the world’s first important agricultural cultural heritage (ACH) — the "Qingtian Rice-Fish Symbiosis System". Its over 1,300-year tradition of rice-fish coexistence has been preserved to this day, with heritage sites from Longxian Village’s core protected area to surrounding villages fully documenting the production and folk inheritance of rice-fish culture.

The high-density area in northeastern Jinyun County is distributed in a zonal pattern along rivers. Eight heritage sites correspond to the "Jinyun Water Bamboo-Duck Symbiosis System" (a national ACH), where the ecological cycle model of water bamboo cultivation and duck farming has evolved over generations, forming a heritage agglomeration belt centered on the water bamboo industry.

## **2.The high-density area in southern Jingning She Autonomous County is concentrated on gentle slopes at 300-600 meters above sea level, embodying the She people's farming wisdom**

It includes six characteristic heritages such as terrace farming and black rice production, with sites deeply integrated with the She's "Shanha" culture. Intact intangible cultural heritages like She-language agricultural proverbs and ritual ceremonies are preserved nearby, making it a living museum of ethnic minority farming civilization.

The high-density area in northwestern Songyang County surrounds national-level traditional villages (e.g., Yangjiatang, Chenjiapu), forming a traditional farming culture agglomeration focused on camellia oil and tea cultivation. It constructs a symbiotic system of ancient villages and traditional agriculture, serving as a typical epitome of farming culture in the mountainous regions of southern China.

Additionally, Longquan City is a yellow sub-high-density area, aggregating forestry heritages and agricultural systems derived from celadon culture. Suichang, Yunhe, Qingyuan and other counties have scattered sites: Yunhe Terraces carry thousands of years of farming wisdom, while Qingyuan's "Forest-Mushroom Co-cultivation System" is the cultural and germplasm origin of the global shiitake industry. Though low in agglomeration, these sites each have distinct regional characteristics.

This distribution pattern results from the long-term interaction of three factors: geographical environment, farming cultural differentiation, and industrial economic drivers. Geographically, Lishui's mountainous and hilly landscape ("nine parts mountains, half part water, half part farmland") promotes three-dimensional agricultural development and ecological adaptation, shaping the spatial foundation of heritages. Culturally, the integration of Ouyue culture, She-Han culture, and Huizhou immigrant culture has transformed farming cultural differentiation into spatial differentiation of heritages. Industrially, heritages are closely linked to local pillar industries — the sustained development of Qingtian's rice-fish industry and Qingyuan's edible fungi industry, for instance, has driven the agglomeration and inheritance of heritage sites.

### **3Current Status of Protection of Agricultural Cultural Heritage in Lishui**

The protection of agricultural cultural heritage in Lishui has formed a diversified pattern of policy guidance, multi-stakeholder participation, and industrial integration, as well as regional characteristic practice paths. However, the protection and development still face practical challenges. Its work is mainly promoted in coordination from three dimensions: policy, space, and industry.

In terms of policy guarantee, Lishui has issued special protection regulations, constructed a three-level linkage protection and management system covering city, county, and township, and clarified the responsibilities of all parties; key heritage counties such as Qingtian, Qingyuan, and Yunhe have established special protection funds to provide financial support for heritage restoration, skill inheritance, publicity and promotion, laying a solid institutional and material foundation.

In terms of spatial control, Lishui has accurately delineated core protected areas based on the characteristics of different agricultural cultural heritages, such as the Qingtian Rice-Fish Symbiosis System (Longxian Village) and Yunhe Terraced Fields (Chongtou Town); in the core protected areas, rigid measures such as architectural style control and restricted use of agricultural inputs are strictly implemented to avoid man-made damage and inappropriate production behaviors, ensuring the authenticity and integrity of the heritage.

In terms of industrial integration, Lishui has explored the "heritage +" integrated development model, focusing on promoting the integration of "heritage + tourism" and "heritage + e-commerce" formats. For example, Qingtian has developed rice-fish symbiosis themed research routes, Qingyuan has built a shiitake mushroom cultural industrial park, and Jinyun has developed agricultural experience projects based on water bamboo-duck symbiosis. These efforts have not only enhanced the popularity and influence of agricultural cultural heritage but also broadened the income-increasing channels for residents in heritage sites.

### **3. Problems Existing in the Protection and Development of Agricultural Cultural Heritage in Lishui**

#### **3.1 Inheritance Dilemma**

The dislocation of traditional skills and the endangerment of species resources coexist. Affected by the urban-rural gap and low agricultural benefits, a large number of young laborers in heritage sites have migrated out, leading to an aging population of traditional skill inheritors and a serious shortage of successors. For example, most of the core inheritors of the "kanhua method" of shiitake mushroom cultivation in Qingyuan are over 60 years old, with very few young inheritors. At the same time, traditional species are being replaced. For instance, the traditional muscovy ducks in the Jinyun Water Bamboo-Duck Symbiosis System have been replaced by hybrid ducks with higher economic benefits due to their long growth cycle and low egg production rate, threatening the uniqueness and diversity of species.

#### **3.2 Development Contradictions**

The contradiction between tourism development and ecological protection is prominent, and excessive commercialization in some heritage sites has damaged authenticity. For example, the surge in tourists in Yunhe Terraced Fields has increased the ecological burden; water pollution caused by tourists and transportation activities in the core area of Qingtian Rice-Fish Symbiosis has affected the system balance; some heritage villages have blindly introduced commercial formats, damaging the original style and simplifying traditional folk customs, resulting in a "one-size-fits-all" phenomenon that weakens the cultural connotation and unique charm of the heritage.

#### **3.3 Technology Adaptation**

The adaptation between modern agricultural technology and traditional farming methods is insufficient. Traditional farming methods are compatible with the natural environment and terrain of heritage sites, while modern agricultural technology has not fully considered their uniqueness: for example, most areas such as Yunhe Terraced Fields and Qingtian Rice-Fish Symbiosis are mountainous and hilly with scattered plots, making large-scale mechanized equipment inapplicable and production efficiency difficult to improve; Lishui has implemented a policy of reducing chemical fertilizers, but the traditional rice-fish and water bamboo-duck symbiosis models have poor adaptability to chemical fertilizer reduction. How to ensure output while reducing chemical fertilizers has become a technical bottleneck restricting the sustainable development of traditional farming.

### **4. Conclusions and Recommendations**

(1) **Conclusions** As an important birthplace of the "Two Mountains" concept and a region rich in agricultural cultural heritage (ACH), Lishui has achieved remarkable results in the protection and development of ACH under the guidance of rural revitalization, while also facing multiple challenges. First, Lishui's ACH has formed a unique spatial pattern characterized by "core cluster areas and scattered distribution zones", which is the result of the long-term interaction of geographical environment constraints, differences in farming cultures, and industrial economic drivers. Endowed with multiple values, ACH serves as a living carrier of farming civilization in southwest Zhejiang and a key link connecting ecological protection and rural development, sharing an in-depth coupling relationship with the rural revitalization strategy. Second, Lishui has established a coordinated multi-dimensional protection framework integrating policies, space, and industry: at the policy level, institutional guarantees are provided through a three-level (municipal-county-township) management system and special funds; at the spatial level, the authenticity and integrity of heritage are maintained by delineating core protected areas and implementing rigid regulatory measures; at the industrial level, value conversion is achieved through the "heritage +" model, laying a solid foundation for heritage protection and rural income increase. Third, three core dilemmas persist currently: the outflow of young labor force has led to the discontinuity of traditional craftsmanship and the replacement of characteristic species; the imbalance between tourism development and ecological protection, with excessive

commercialization in some areas eroding the authenticity of heritage; the inadequate adaptation between modern agricultural technologies and traditional farming methods, which restricts the coordinated development of production efficiency and ecological protection. In addition, there are potential issues such as low community participation, superficial industrial integration, and vague brand recognition. Fourth, the protection and development of Lishui's ACH is essentially a process of transforming ecological advantages into development momentum. The existing achievements have verified the feasibility of ACH as an endogenous driving force for rural revitalization, while the current dilemmas reflect deep-seated contradictions between heritage protection and development, tradition and modernity, and short-term interests and long-term development. A systematic and targeted solution is urgently needed to realize a virtuous cycle of protection, inheritance, and utilization. ##### (2) Recommendations In response to the above dilemmas and combined with Lishui's actual situation, the following targeted recommendations are proposed: First, strengthen the inheritance system to address inheritance predicaments. On the one hand, establish an incentive mechanism for traditional craftsmanship inheritance, attract the return of young labor force by setting up special inheritance subsidies, selecting intangible cultural heritage inheritors, and building craftsmanship display platforms; cooperate with local universities and vocational and technical schools to offer courses related to traditional farming skills, and carry out targeted training through "mentor-apprentice pairing" to systematically cultivate young inheritors. On the other hand, strengthen the protection of characteristic species resources, establish gene banks for traditional species, implement special protection for endangered species such as Jinyun's traditional duck breeds; encourage farmers to retain traditional breeding and planting models through policy support and technical guidance, so as to ensure the diversity and uniqueness of heritage species. Second, balance development and protection to avoid the risk of excessive commercialization. First, implement an ecological carrying capacity control mechanism, calculate the tourist capacity of key heritage sites such as Yunhe Terraces and the core area of Qingtian's Rice-Fish Symbiosis System, and adopt time-based and regional-based flow restriction measures; promote the ecological construction of tourism supporting facilities, improve sewage and waste treatment systems, and reduce ecological damage caused by tourist and traffic activities. Second, adhere to the principle of "authentic development", delineate red lines for commercial development, standardize commercial formats in heritage villages, and focus on fostering characteristic formats compatible with local cultural characteristics such as homestays, handicrafts, and special agricultural products; thoroughly explore the cultural connotations of agricultural cultural heritage, develop immersive and experiential cultural tourism products, and avoid the simplistic reproduction and commercial alienation of cultural symbols. Third, promote technological adaptation and innovation to facilitate the integration of tradition and modernity. On the one hand, carry out targeted technological research and development, cooperate with scientific research institutions to develop small and lightweight agricultural machinery suitable for mountainous and hilly terrain, as well as ecological technologies applicable to traditional symbiotic models, so as to solve the dilemma of balancing chemical fertilizer reduction and yield maintenance. On the other hand, establish a technology promotion service system, form expert teams to conduct on-site technical guidance in heritage areas, and help farmers master adaptive modern agricultural technologies through field demonstrations and training programs, realizing the modernization upgrading of traditional farming methods and improving agricultural production efficiency and ecological protection capacity.

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