

Resilience building of tourism villages confronting COVID-19 in China's Metropolitan Hinterland: Evidence from Shanghai Metropolitan Area

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Abstract

Most villages in the world are facing the test of transformation and revitalization in the process of globalization and urbanization. China's "rural revitalization" strategy has allowed rural tourism to flourish, but it has been greatly impacted by COVID-19. How to enhance resilience in response to public health events has become a topic worthy of in-depth study. Therefore, our study takes Guzhu Village in the suburbs of Shanghai, a tourist village that has overcome the epidemic and gained resilience, as the main case. Our research provides a theoretical framework for enhancing rural resilience on a global scale, aims to contribute to the revitalization and recovery of rural tourism during or after crisis events and provides an empirical approach to rural industry transformation, upgrading and sustainable development.

Key words

Resilience, socio-ecological system, tourism village, COVID-19, Shanghai Metropolitan Area

1 Introduction

As globalisation deepens, the relationship between rural and urban areas is becoming increasingly close, and more and more factors of production are flowing from rural to urban areas, thus aggravating the problem of rural population loss and economic decline(Woods and M., 2007,p.485-507). As a matter of fact, the decline of the countryside has become a global problem, and the transformation and revitalisation of the countryside cannot be delayed(Carr and Kefalas, 2010,p.30-34). Since the 1950s, the countryside in developed countries such as the UK and the US has undergone significant changes and reconstruction in the context of urbanisation and counter-urbanisation, showing a shift from productivism to post-productivism(Wilson, 2001,p.77-102). For China, over the past four decades, it has experienced rapid industrialisation, urbanisation and modernisation, and the rural territories have been more and more significantly affected by urban development, and the traditional countryside, with its single agricultural function as the main mode of production, has undergone unprecedented changes(Tu and Long, 2017,p.1169-1184). Especially in the developed areas of China's eastern seaboard and the villages around big cities, the transformation of farmers' lifestyles has been driven by the transformation of production methods, and industries such as cultural tourism, recreational and healthcare experience, farmhouse, and B & B (bed and breakfast) have been incubated and rapidly developed in this context. These villages also experienced greater disruption and negative impacts during the COVID-19 period due to the increased integration of rural livelihood activities into the market economy(Hickey and Toit, 2007,p.).

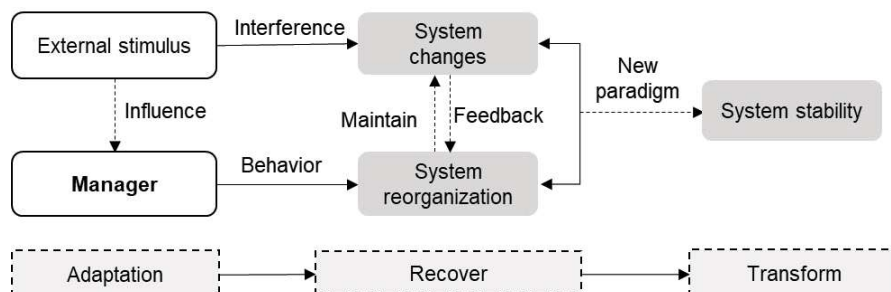
The COVID-19 outbreak made us realise that any localised public health event can spread rapidly across the globe with the movement of people and goods, with serious impacts on national economies, social security and individual health. Shanghai, China, as one of the most representative metropolises in China, has direct or indirect socio-economic links with the hinterland countryside, and the role of urban-rural relations is the strongest(Gu et al., 2019,p.102041).During COVID-19, in order to safeguard the lives of the city residents, the epidemic prevention system set up in Shanghai cut off to a greater extent the links with the neighbouring areas, including the rural areas that received the radiation from Shanghai, and their economies were affected in a comprehensive manner(Bartik et al.). In addition, due to the sensitivity and vulnerability of the tourism industry, its defences against such public crises were relatively weak and it was hit harder than other industries(Gssling et al., 2021,p.). The spatial isolation between Shanghai and the countryside has caused the rural tourism industry to be hit hard, and the B&B industry, which relies on tourism for its survival, has been hit by a cliff, with a large number of rural B&Bs going out of business or even closing down. However, some tourism-based villages survived the impact of COVID-19 and transformed into more resilience-based sustainable development strategies under the catalyst of COVID-19, which triggered more in-depth research and discussion on the rural tourism model and the mechanism of rural resilience(Wang et al., 2024,p.400-421).

Our study focuses on the rural areas in the hinterland of the Shanghai metropolis, and selects Guzhu Village, a tourist-oriented village that survived the epidemic and has the ability to recover, as a case study. We explore how the tourism industry in the rural areas of the Shanghai hinterland experienced and adapted to the economic shock caused by COVID-19, and in the process constructed a resilience mechanism for the rural socio-ecological system. Field surveys, questionnaires and semi-structured interviews are used to answer the question of the resilience construction mechanism and the role of the subject in Guzhu Village after the epidemic impact.

2 Literature Review

2.1 Rural Resilience In Socio-ecological System

Resilience is the ability to retain basic functions in a destructive state and to return to a state of equilibrium after the destruction. resilience undergoes the stage of 'engineering resilience - ecological resilience - evolutionary resilience'. "The recovery path of evolutionary resilience is derived from the evolutionary trajectory of socio-ecological systems (SEs), which are coupled systems of human social systems and natural ecosystems. It is generally believed that the evolutionary trajectory of socio-ecological system has two cycles and four stages(Holling, 1986,p.). Among them, the growth phase (R) and the conservation phase (K) constitute the first slow, cumulative cycle of positive looping, and the collapse and release phase (Ω) and the reorganisation phase (α) constitute the second unpredictable cycle(Gunderson and Holling, 2003,p.). In the study of socio-ecological system, adaptation, recovery and change are three attributes that characterise the evolutionary trajectory of socio-ecological system. Among them, adaptation can be understood as the behavioural activities of managers in human societies, whose decisions and behaviours consciously or unconsciously affect the resilience of the socio-ecological system, and change is the introduction of new components and ways of making a living based on restoration, which defines and creates a new stable state (Figures.1). Therefore, the essence of socio-ecological system resilience evolution resilience construction is the capacity building of the evolutionary process and circular mechanism of the socio-ecological system.



Figures.1 Building socio-ecological system resilience

Source: Author's own drawing

Rural areas are more vulnerable to shocks and have a weaker resilience than regional and urban areas because they lack the necessary financial and human resources to plan and respond to emergencies (Ge et al., 2022, p.14533). The concept of rural resilience emphasises that rural areas are adaptive, resilient and transformative, moving from decline to regeneration as they interact with their internal and external environments (Huang et al., 2018, p.47-55). Rural areas that interact more frequently with the market economy and have more social and environmental capital are generally considered to have stronger resilience. The village is a component of socio-ecological systems (SEs), in which humans, natural resources and the environment interact at multiple spatial and temporal scales, and the socio-ecological system plays an important role in providing material and non-material support for villagers' production and life (Cheng et al., 2022, p.645-661). Rural resilience played an important role in the COVID-19 shock, and despite the spatial isolation of rural areas in China as a result of the restrictive measures implemented during COVID-19, there are still parts of the countryside that have the governance system, social effectiveness, physical and technological infrastructure, and economic flexibility to organise the flow of local commodities to meet emergency needs (Hu and Zhang, 2022, p.). Most academic studies on the impact of COVID-19 on rural China view resilience as a cross-sectional state, and few studies have explored the process and trajectory of resilience in terms of its formative elements and constructive mechanisms, which require a certain amount of time to follow up. Compared with large-scale tracking surveys, micro-case studies of tourism villages can better illustrate the process and operational mechanisms of resilience. Therefore, it is necessary to study the resilience of the socio-ecological system in the villages that recovered quickly and operated normally after the impact of the epidemic, as to provide theoretical support for the construction of rural resilience in the post-COVID-19 era.

2.2 Social Capital In Rural Governance

Unlike traditional management, governance refers to the process by which public management organisations, whether official or non-governmental, coordinate and cooperate in defining norms and rules for the conduct of public affairs on the basis of common goals (Modelska and George, 1993, p.311-545). Traditional top-down rural governance is no longer suitable for the existing multifunctional rural environment, and flexible multi-participant collaborative models provide adaptive capacity to manage complex rural socio-ecological systems by increasing the economic capital of the system and strengthening industrial linkages. Adaptive governance provides better opportunities for decision-making structures, long-term social welfare and sustainable economic development (Rivera-Arriaga et al., 2021, p.105518). In China, the

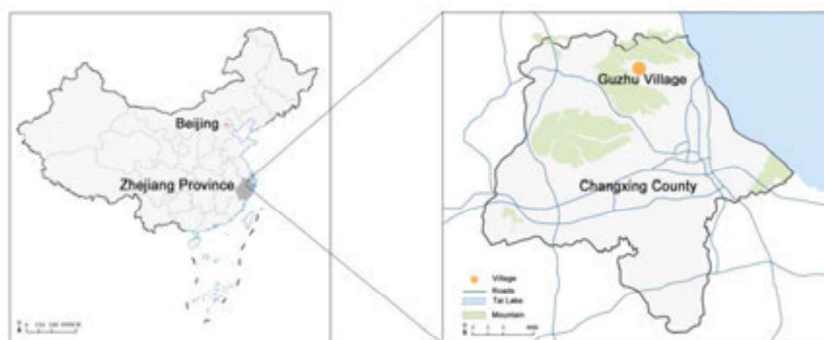
governance system is characterised by a combination of political centralisation and economic regional decentralisation. As rural revitalisation is regarded as a national policy, local governments with the intervention of state power have the right to directly lead, encourage farmers to organise themselves, and promote the participation of enterprises in projects. With the progress of modernisation and the extension of state power to the countryside, grassroots governance in Chinese villages has been transformed from folk clan power to a long-term political-administrative model of governance(Yin and Rui, 2023,p.8882), resulting in the formation of a particularly informal administrative body, the village committee. As local (grassroots) administrators, they can not only ensure the implementation of the work of the state in the countryside, but also promote the stability of the order of the socio-ecological system in the countryside(Ye et al., 2019,p.). In the process of transformational development of villages, village council administrators may have less authority and influence over their residents, but they play a key role in adversity in the face of risky shocks(Liu and Yang, 2019,p.5553).

Due to the characteristics of China's countryside, such as low population mobility and small regional scale, the formation of an acquaintance society is not conducive to the vertical decentralisation of state power for administrative organisations to solve rural governance problems(Hu, 2020,p.012077). Social capital, as an important type of informal system, serves as a lubricant between institutions and the public, and can reduce the transaction and implementation costs for the government to promote and implement policies and regulations(Evans, 1996,p.). At the same time, because villagers have the same identity perceptions, values and emotional perceptions, they interact with each other to participate in public events, and reciprocity or constraints are formed between participants and administrators in order to reduce costs and difficulties, which can improve rural environmental governance(Wang and Li, 2018,p.46-55). Positive and responsive attitudes in this process can effectively improve the relationship between participants and managers to better conduct public affairs and accumulate social capital in the process(Coles and Buckle, 2004,p.6-15). The role of social capital in the socio-economy is accentuated by the lag in the development of formal institutions in the countryside. Social trust provides a structural basis for the formation of social networks and the occurrence of social participation that provides mutual benefits, a process that is conducive to the implementation of public policies and the accumulation of social capital(Wang et al., 2021,p.11883), which provides social, economic, and human resources to withstand a variety of natural disasters, and is an important contributor to the construction of rural resilience(Vesely et al., 2017,p.93-110). The specificity of Chinese rural social capital provides different perspectives for the study of rural resilience, and has outstanding theoretical value and practical significance in enhancing the resilience of rural areas to cope with internal and external perturbations, and thus resolving the impacts and crises of the internal and external environments(Ge et al., 2022,p.14533). Previous studies have mainly focused on the direct causal relationship between rural social capital and resilience and how to use social capital to build resilience, but under the cycle of rural social system, the construction of rural resilience is actually a synergistic effect of multiple elements. Therefore, the interaction and synergistic paths of different elements in the process of building rural socio-ecological system resilience deserve further research and exploration.

2.3 Research Framework

Based on the above discussion, we propose an analytical framework for rural socio-ecological system resilience(Figures.2). In order to better adapt to the rural governance and social capital context, we add the participant dimension to the original manager dimension, and analyse them as the action subjects of rural governance and rural social capital respectively, to reveal the process of constructing RESILIENCE for the two dimensions of rural subjects under the micro

Shanghai is about 160 km, the straight line distance between Guzhu Village and the urban area of Hangzhou, the capital city of the province, is about 100 km, and the straight line distance between Guzhu Village and large and medium-sized cities, such as Nanjing, Suzhou, and Wuxi, is not more than 150 km. Guzhu Village has developed rapidly to form an industrial cluster by virtue of its characteristic industries and transport advantages, and in the process, the government has maintained benign interactions with the operation owners, owners and customers, and owners among owners. In the process, the government and business owners, owners and customers, as well as the owners maintain a positive interaction, showing a more ideal sustainable state of the village.



Figures.3 The geographical location of Guzhu Village

Source: Author's own drawing

3.2 Research Methods

Our research team conducted a field survey of Guzhu Village in 2023, mainly using field surveys, questionnaires, in-depth interviews, and other research methods, distributing research questionnaires to local villagers and tourists, and conducting semi-structured interviews with the main participants in the local farmhouse tourism industry. The research questionnaire was conducted from the dimensions of basic crowd information, family livelihood, spatial environment, rural governance, rural tourism pension, rural resilience, social perception and before and after the epidemic. Interviews were conducted from both groups of managers and participants. The interview process also observed the impact of rural planning on living, production and ecological space.

4 The Evolution Of Farmhouse Tourism Before And After The Epidemic

4.1 Pre-Epidemic: The Growth And The Conservation

Guzhu Village's initial leading industry was the textile industry, where villagers used unused farm buildings for weaving, which not only required 24/7 production, but also earned extremely low processing fees. With the small scale and low income, the farmers lacked the freedom of decision and choice. 1993, a retired Chinese medicine practitioner, Wu Ruian, established the first rehabilitation and convalescent centre for the elderly in Guzhu Village - the "Shenxing Rehabilitation and Nursing Home", which attracted a large number of elderly people from Shanghai to recuperate here. Due to the increase in traffic and the shortage of rooms, villagers in the neighbourhood began to rent out their own farmhouses for the elderly to use. The villagers

realised the business opportunities and in 2000, the first local villager-run farmhouse, Wang Ta Zhuang, was born. As the entry threshold for farmhouses is not high, and farmhouses are relatively easy to run compared to 24-hour looms, local residents have since followed suit, and the development of farmhouses has gradually become a trend.

After 2005, the number and size of Guzhu Village farmhouses grew dramatically. By 2014, the 325 B&Bs in Guzhu Village had received 2.5 million visitors in a year, 80 percent of whom came from Shanghai, making it a well-known "Shanghai Village". After 2015, after a period of growth in the number of dramatically increased, the market competition has become more intense, monotonous, crude farmhouse business model has gradually failed to meet market demand. As the farmhouse tourism industry enters a stable development stage, the production resources of the socio-ecological system are gradually locked, and the system matures with the inevitable rigidity, and the flexibility and resilience of the system will gradually decrease. Specific manifestations include product quality and economic service level failing to keep up, serious homogenisation, lack of public support services, and the need to improve the hygienic environment. Many farmhouse operators began to seek business philosophy innovation and quality enhancement, township government, village committees and other managers combined with the comprehensive improvement of the overall environment to carry out comprehensive renovation and upgrading of the farmhouse in the business environment and quality of service and other aspects of the overall transformation. They rely on farmhouse industry associations to establish and improve industry standards and boost the transformation and upgrading of farmhouses to boutique B&B.

'With regard to the rectification and upgrading of farmhouses, we have carried out the following work: strengthening the rectification of farmhouse food safety, fire safety and security safety. Concentrate on farmhouse environmental hygiene and improve public supporting facilities. Standardise the level of farmhouse services and improve the quality of farmhouse space. Establish farmhouse long-term management mechanism, etc. (Township government staff)'

4.2 Post-epidemic: The Release And Reorganisation

Guzhu Village farmhouse was at the bottleneck stage of industrial development from scale expansion to quality upgrading, and despite the manager's governance measures, little was achieved. Because renovation and upgrading meant a phased closure of the business, which greatly affected the owners' income, the emergence of COVID-19 turned things around. In fact, the impact of the epidemic on Guzhu Village was so great that in order to safeguard people's lives and property, the township government in which Guzhu Village is located activated a comprehensive emergency response plan as soon as the outbreak occurred, made the decision to shut down the entire industry immediately, and summoned all the village cadres, members of the industry association, and volunteers to take measures to prevent the epidemic.

During 2020-2022, in order to properly deal with the problem of migrant workers staying in the village during the epidemic and to improve the scenic quality and supporting facilities for rural tourism, the village committee's rural planning and spatial environment improvement introduced projects such as the Twelve Square of the Tang Dynasty and the Great Tang Nocturnal Street, and called on the stranded workers to form an engineering and construction team to push forward scenic area renovation (Figures. 4). The manager's governance measures address the problem of epidemic impact while providing new components for village change, laying a hardware foundation for resumption of work and production after the epidemic, further

enhancing the village's ability to resist external impacts, and establishing a long-term plan for the village's sustainable development.

'The next relevant planning, will continue in the village public space layout Lu Yu study, Huaxi Valley camp, the new visitor centre, style station, etc., and some tea culture supporting facilities for commercial business to do supporting space, including for some of the young people to Guzhu, the original market has been relatively complete, the subsequent supporting facilities are actually geared to the needs of other age groups. (Cultural Tourism Corporation staff)'



Figures.4 Guzhu Village Leisure Tourist Attractions

Source: On-site shooting and Internet

The construction and renovation of the rural scenic spot project has also led to the renovation and upgrading of 156 rural farmhouses and the construction of beautiful courtyards in three districts. The business owners did not stay in the vicious circle of homogeneous competition, and used the gap time of the epidemic to participate in the village collective skills training, for example, to carry out e-commerce operations, and to carry out the construction of beautiful courtyards and environmental improvement with the help of village committees and associations and organisations (Figures.5).



Figures.5 Skills training, beautiful courtyard construction, and farmhouse upgrades during the epidemic in Guzhu Village (from left to right)

Source: Information provided by the village committee

The cycle of the village socio-ecological system shifts from collapse to restructuring, and turning crisis into opportunity requires a great deal of preparation. In the case of Guzhu Village, the post-epidemic reorganisation was undoubtedly a success, thanks to the adaptive decisions and actions of managers and participants in the face of shocks, as well as to the participation of

the entire population through effective village planning, which prepared them for innovation and transformation in the face of uncertainty during a period of change.

5 Managers And Participants Of Rural Resilience Building

5.1 Adaptive Governance For Managers

5.1.1 The Main Body Of Governance Supports The Development Of The Industry

Although China has adopted a market-oriented development path, the allocation and supply of resources is manipulated by the government, and the Guzhu Village farmhouse tourism industry, although it has formed industrial clusters in which many operators and enterprises have joined, is essentially a village collective type of rural tourism. The village collective type of rural tourism mainly refers to the village to form the appropriate management organisation, the top-down implementation of unified marketing, management, training and supervision mode, the village tourism entities actively participate in it, abide by the rules and regulations of the village, enjoy the rights and interests therein. The support of the local government provided a favourable social environment for rural development, which played an effective macro-control role during the epidemic. The top-down vertical governance system in the implementation of the village collective rural tourism model can better discipline the behaviour of the villagers, integrate resources, and promote industrial transformation and upgrading. This governance model is also recognised by the villagers, with more than 75 percent of villagers believing that the "government" is the main body that supports the development of the tourism industry in Guzhu Village farmhouse.

'During the entire epidemic, the government does not allow crowds to gather, and do not allow mahjong, then we mobilise people to do volunteers, to skills competitions, to promote the construction of beautiful courtyard. At the same time, our government introduced support and encouragement policies, in fact, is to assist in equipping strategic materials, masks can not be bought, temperature guns can not be bought, disinfectant can not be purchased, whoever is doing a good job will be given priority to configure, to improve the overall owner's motivation. (Village Council staff)'

5.1.2 Association Organisation Drive The Implementation Of Decisions

Although the vertical governance body lays the policy foundation for rural industrial development, the implementation and practice of decision-making requires the collaboration and co-operation of many parties to ensure the positive cycle of the socio-ecological system, which is reflected in the existence of the farmhouse association organisation. As the members of the association are spontaneously selected by villagers, they have a foundation of social trust. They have established a social network with the villagers' owners and have a certain sense of identity and reverence. The association managers are willing to take the initiative to undertake the tasks assigned by the organisation, and the participants are also willing to respond positively. Although the association does not have administrative functions and management functions, but the village committee grants the association organisation certain power to maximise the interests of business owners, that is, to win the support of the masses, but also to carry out their work better. While the association promotes the implementation of decisions, it also seeks benefits for the participants, who are themselves farmhouse owners, understand the real needs of the participating groups at different stages, and have a certain degree of voice.

'For farmhouse scenic spot renovation and upgrading, many villagers are also reluctant at first. Then the village cadres, party members, association directors, villagers' representatives take the lead in the first demolition of the first change. For a part of the farmhouse owners who have ideas and concepts and urgently want to renovate and upgrade, we fully support them in terms of design, construction, funding, etc., to create samples, and driven by the samples, the villagers slowly began to renovate and upgrade on their own initiative (Association organisation staff)'

5.2 Social Capital Accumulation Of Participants

5.2.1 Family Business Promotes Social Trust And Reciprocity

The villagers of Guzhu Village are both managers and participants in the construction of the village's socio-ecological system resilience, and more often than not, they play a role in the system and accumulate social capital as participants. In addition, there are also hotel chains and fleet operators, who together with the majority of villagers constitute the group of participants. The family business model created by the participants, mainly farmhouse owners, lays the foundation for the creation of social trust and plays a crucial role in business transactions and daily life. Although this business model is small in scale, low in management, and weak in branding and competitive market influence, the bound social trust has not hindered innovation and adaptation, but on the contrary, has higher risk resistance and lower operating costs, and the flexible business model improves the resilience of system.

Farmhouse owners are getting younger, with an average age of 39.4, and are able to keep up with the times and develop diversified industrial businesses. Although most of the villagers are engaged in commercial services, they still choose to take care of their farmland privately and hire their relatives to do farming, accounting for 79.8 percent, which makes the villagers' incomes more diversified and affluent, and enables them to have enough economic basis to resist external shocks. This kind of family business model is restricted by the geographical location of the village, and is generally composed of villagers from the same village, who rely on the formation of an "acquaintance society" to attract new customers, which prevents the formation of "low-price competition" to a certain extent. The case of Guzhu Village proves the virtuous cycle of the family business model, and also serves as the basis of resilience building to ensure the stable operation of the system.

'In the operation process will also encounter some bottlenecks, for example, now more and more farmhouse well, competition is also more and more. But we are not afraid of competition, because we correspond to different consumer groups in different places, good relations between peers. Sometimes there are things in the family can not receive, other families have a lot of farmhouse ah, can be recommended to other people's homes. (Rural farmhouse operators)'

5.2.2 'affectionate' relationships strengthen social networks

The patron-client relationship in general business transactions is an interaction based on the goods being traded, where both parties clarify their respective responsibilities and rights, and establish a good relationship of trust and co-operation in order to achieve common business goals. However, in Guzhu Village, after many years of receiving tourists, there is a high degree of integration between urban and rural civilisations, and a high degree of trust has been built up between the owners and the tourists, which goes beyond the relationship between the host and the hosted, and the social network formed as a result of this relationship is more close and intimate. This 'affectionate' relationship is also an important motivation for the transformation

of Guzhu Village into a B&B. On the one hand, the owners will listen to the suggestions of tourists to optimise their products and services, and on the other hand, the accumulation of social capital will increase economic efficiency.

'Having run a B&B for many years, I have kept in mind the points of need of our guests and have made it a point to refer to most of our regular customers. Also, because of this kinship, because of this trust, customers will lend us their savings interest-free to help us with remodelling and upgrading or investing in potential projects in the village. As far as I know, more than 60 percent of the operators in the whole B&B industry get part of their renovation funds from tourists. (Village boutique B&B operators)'

6 Conclusion

China's rural transformation has a different background from that of Western countries, and through the case of Guzhu Village, we can see the evolutionary trajectory and cyclical process of rural socio-ecological system resilience, which forms a better inspiration and paradigm for the construction of resilience in rural areas. Through the incident of COVID-19, our research has deeply explored the construction process and operation mechanism of rural socio-ecological system resilience, and formed the following conclusions.

First, farmhouse tourism provided new possibilities for economic activities in Guzhu Village, triggering an explosive growth of farmhouses. However, the outbreak of COVID-19 revealed the vulnerability of village tourism, and the stagnation of the industrial economy accelerated the collapse of the village socio-ecological system, which in turn catalysed the transformation and upgrading of the village. Second, managers effectively enhance rural resilience. adaptive governance by managers vertically integrates resources from different levels of government to support the operation of the rural socio-ecological system. Horizontal collaborative governance promotes the implementation of decision-making and assists clusters in adapting to external shocks and promoting system change. In addition, participants guarantee system stability. The family business model derived from the villagers as participants is the economic foundation of the farmhouse tourism industry, and the basis for the construction of socio-ecological system resilience, and the "affectionate" patron-client relationship constructs a two-way multi-node social network connection, realising social capital. The "affectionate" patron-client relationship constructs a two-way multi-nodal social network connection, realises the transformation of social capital into economic capital, and enables the system to have a stronger adaptive capacity.

Our case study reveals the construction process and mechanism of rural socio-ecological system resilience under the COVID-19 shock, but inevitably there are certain limitations, as there are many types of villages in China, and villages in the hinterland of the metropolis respond to the shock of public events such as epidemics in different ways, and the mechanism of their resilience needs to be revealed by more extensive research. In future research, we will explore the resilience patterns of villages in other regions.

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