

Rural Resident Participation in Rural Human Settlement Environmental

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Abstract: This study aims to delve into the impact of rural resident participation on rural human settlement environmental governance, providing fresh theoretical insights and practical experiences for rural governance. Firstly, the paper analyzes the significance of rural resident participation in rural environmental governance, emphasizing the pivotal role of rural self-governance in community governance. Subsequently, the study examines the role of government policies and support, as well as the involvement of non-governmental organizations, in rural environmental governance. Government policies and support stimulate proactive participation by rural residents, while non-governmental organizations contribute specialized knowledge and resources to rural environmental projects. Collaboration between the government and non-governmental organizations is also identified as a key factor in enhancing governance efficiency. In the concluding section, the comprehensive effects of rural resident participation in rural human settlement environmental governance are summarized, including environmental quality improvement, increased community cohesion, and the promotion of sustainable development. Additionally, the study explores the potential and future directions of rural resident participation, underscoring the importance of policy formulation and further research. This research is expected to provide valuable insights for academia and policymakers, fostering the advancement and refinement of rural governance.

Keywords: Rural Resident Participation, Rural Environmental Governance, Government Policies, Non-Governmental Organizations, Sustainable Development.

1. Introduction

The quality of rural living environments serves as the cornerstone of rural revitalization and constitutes a vital component of China's unique modernization. Over the years, the Chinese government has placed significant emphasis on the improvement of rural living conditions, issuing a series of policy documents such as the "Guiding Opinions on Improving Rural Living Environments" in 2014 and the "Five-Year Action Plan for Enhancing Rural Living Environment Remediation" in 2021. These policies stress the imperative to significantly enhance rural living conditions by 2020 and 2025, with the goal of constructing beautiful and habitable rural areas. Nevertheless, despite substantial achievements in certain regions, the endeavor to improve rural living conditions still encounters numerous challenges. While governments usually assume a predominant role in rural living environment governance, the active participation of rural residents, as direct beneficiaries and crucial agents, is of paramount importance for the enhancement of rural living conditions.

This study aims to delve into the impact of rural resident involvement on the governance of rural living environments, offering novel theoretical perspectives and practical experiences for rural governance. From a theoretical standpoint, this research enriches the domain of rural governance by underscoring the pivotal role of rural resident participation, thereby facilitating the effective implementation of the rural revitalization strategy. In practical terms, this study contributes to the amelioration of rural living standards, the promotion of green, low-carbon circular development, the advancement of urban-rural integration, the mitigation of urban-rural disparities, and, ultimately, the facilitation of high-quality rural economic development. Consequently, this research not only holds the potential to

furnish fresh insights for the academic community but also serves as a guiding force for policymaking, propelling substantive progress in the governance of rural living environments.

2. Rural Living Environment and Governance Assessment

2.1. The Connotation of Rural Living Environment

The concept of rural living environments originated abroad, particularly in the field of urban planning. The 18th-century Industrial Revolution in the United Kingdom accelerated urbanization and led to the deterioration of urban ecological environments. In the mid-19th century, scholars began studying urban development, laying the foundation for modern urban planning. Ebenezer Howard from the UK proposed the idea that urban and rural areas should develop in conjunction. Patrick Geddes introduced the concept of regionalism, emphasizing that both urban and rural areas should be included in planning. In 1975, C. A. Doxiadis established "human settlement science," emphasizing that human settlement environments should be studied as a whole system. This concept led to the emergence of "human settlement studies" as a comprehensive global discipline, influencing the academic community in the 1970s. However, research on living environments in China started relatively late. During the period of the Republic of China, some scholars began to focus on rural settlement geography, but the formation of a true living environment discipline in China lagged behind foreign counterparts.

In recent years, with the acceleration of urbanization in China, issues related to living environments have become increasingly prominent. Wu Liangyong (2001) is regarded as the founder of the discipline of living environments in China,

advocating the development of environmental science for human settlements in China. The State Council emphasized sustainable development in the "China's 21st Century Agenda - White Paper on Population, Environment, and Development in the 21st Century" published in 1994. Scholars such as Liang Shuming (2006), Yu Bin (2007), and Wu Liangyong (1996) contributed theoretical perspectives and policy recommendations related to living environments in different fields. Despite the relatively mature theories on living environments abroad, research in China still needs further refinement. The theoretical framework for living environments in China should be adjusted appropriately according to the national conditions and the characteristics of urban-rural construction, establishing a theoretical system that is suitable for China's reality.

2.2. Governance of Rural Living Environments

Although the governance of rural living environments is receiving increasing attention, there are several critical issues and challenges in the actual governance process. On one hand, the governance process overly emphasizes infrastructure construction, neglecting the establishment of governance mechanisms and long-term maintenance. This has resulted in uneven progress in governance across different regions and an overall need for improvement in governance quality. On the other hand, technical management policies are not yet well-developed, lacking clear governance goals and forward-looking planning. As a result, governance lacks scientific guidance, and there is a shortage of mechanisms for assessment and supervision. Particularly, financial support faces difficulties as government funds are limited, and tax policies are complex, imposing certain pressures on governance.

The predicaments of rural living environments are not caused by a single factor but are the result of the comprehensive interaction of various factors. These include issues at the government level, such as government development ideologies, resource allocation, and environmental awareness. They also include issues at the rural resident level, such as weak environmental awareness and insufficient sense of agency. Moreover, underdeveloped economies in rural areas, inadequate government financial support, and slow progress in governance further exacerbate the challenges. In the process of rural governance, the participation level of villagers is relatively low, village planning is challenging, rural industries lag behind, and governance resources are insufficient. Simultaneously, the environmental protection awareness of rural residents is relatively weak, rural human resources are decreasing, and rural institutions exhibit certain rigidity.

Compared to successful experiences in rural living environment governance abroad, especially in countries like Japan and South Korea, there are valuable insights to be gained. These nations have provided clear support in terms of policies, formulated corresponding laws and financial policies, and encouraged rural residents to participate in sustainable agricultural development. Governments have proactively invested in supporting the development of local specialty products, establishing competitive local economic models. Additionally, these countries have improved rural living environments by stimulating the participation of rural residents through government-led governance and guiding active participation of social organizations and the public.

The governance of rural living environments faces multiple

problems and challenges, necessitating solutions for issues like incomplete governance mechanisms and insufficient rural resident participation. Particularly in economically underdeveloped areas, the limited availability of government financial support restricts the progress of governance. Therefore, in-depth research into these issues and challenges, along with the proposal of relevant policy recommendations, plays a pivotal role in the future governance of rural living environments.

2.3. Evaluation of Rural Living Environments

In recent years, with the implementation of the rural revitalization strategy, research on rural living environments has become increasingly important. A large body of literature has emerged in academia, offering diverse research perspectives and rich content. Currently, research on the evaluation of rural living environments has become the primary research method. Scholars from various disciplines, guided by theories of living environments, conduct research from the perspectives of constructing objective evaluation indicators and subjective evaluation of living environments. The evaluation encompasses several aspects:

Research on the construction of a quality system for living environments has shifted from the initial stages of urban development to more specific aspects. There is an emphasis on deepening and expanding the evaluation system. After introducing the concept of sustainable development, the United Nations in 1996 and 2004 respectively emphasized the integration of sustainability into rural living environments. Scholars like Wiley J (1998) began emphasizing the importance of circular economies and natural ecological environments in residents' living environments, moving away from a sole focus on economic benefits. Asami (2001) proposed the inclusion of sustainability in residential environmental indicators. Initially, living environment studies were primarily qualitative, but they gradually transitioned towards quantitative research. Quantitative indicators cover factors related to human activities such as economic and social development, including income levels (Mohit M A, 2010), housing conditions (Savchenko A, 2017), air quality (Mues A et al., 2014), and residential environment reputation, among others. The indicator system for living environments has gradually emphasized economic and social factors. The Economic Information Department of the UK attempted to categorize living environment evaluation indicators into five major categories. Currently, in China, the focus of living environment evaluation is mainly on the construction of rural living environment systems. Professor Wu Liangyong has proposed some indicator systems for the construction of rural living environments in China, which are used to evaluate the quality of rural living environments. Li Bohua et al. (2008) believe that rural living environments include human social environments, geographic environments, natural environments, and their interrelationships.

Furthermore, the evaluation of rural living environments can also be conducted from the subjective perspective of residents, including satisfaction, happiness, and other subjective evaluation methods. Scholars can construct surveys based on their own perception of rural living environments to assess them based on subjective factors. Some scholars evaluate rural quality of life from the perspectives of satisfaction and happiness. Some studies argue that the subject of rural living environments is people; therefore, the evaluation should prioritize villagers'

satisfaction. Primary data can be obtained through methods such as surveys, home visits to residents, and interviews with village officials. Most scholars use fuzzy comprehensive evaluation methods to assess satisfaction with rural living environments. Some researchers employ other methods for evaluation, such as subjective evaluations and hierarchical clustering.

3. Village Participation in Rural Governance

The effectiveness of rural environmental governance is closely tied to active participation by villagers, with a particular focus on villagers' self-governance. Xu Tingting (2019) argues that rural development must recognize and respect the central role of farmers, who should be the decision-makers and builders of the new rural areas. To achieve this, methods such as training new professional farmers, transforming rural labor into human resources, and utilizing "democratic management" have been proposed. Additionally, mechanisms like open village affairs and "one matter, one discussion" need to be established to promote grassroots democracy and safeguard the democratic rights of farmers. Li Yuanxun (2019) emphasizes that the healthy development of villagers' self-governance relies on legal guarantees, and the establishment and improvement of relevant legal systems have also promoted the positive development of villagers' self-governance. Farmer participation is the foundation of effective governance and revitalization in rural areas. Rural areas, as the basic units of national governance, have farmers as their core subjects. The goal is to promote the comprehensive development of farmers. As grassroots participants, farmers need to enhance their education and skills to increase their political literacy and political participation awareness, enabling deeper involvement.

3.1. Research on Farmer Participation Intentions

Scholars have found that individual cognition and social capital have a positive incentive effect on farmers' participation in rural environmental improvement (Zhao Yake, 2020). Chi Shangxin (2017) found that farmers' environmental concerns and trust in the government contribute to their willingness to pay for environmental protection. Liu Miaomiao (2019) conducted research in Anguo City and found that farmers' cultural qualifications and economic status have negative impacts on their participation in environmental improvement. Jia Yajuan et al. (2019) suggest that institutional trust plays a crucial intermediary role in influencing farmers' willingness to participate. Through quantitative analysis, Mao Xinmin et al. (2019) discovered that capital significantly affects participation willingness. Lei Xiaoyu (2021) pointed out that farmers' possession of social capital encourages them to actively participate in rural environmental improvement. Yan Tingwu et al. (2016) studied the impact of social capital on farmers' willingness to invest in and protect the environment.

Additionally, some researchers have focused on factors such as local attachment, perceived value, interest structure, and local culture. Wang Xuetong et al. (2021) found that the level of local attachment among farmers in Hubei Province is generally moderate but can significantly increase their willingness to participate by enhancing their attachment.

3.2. Measurement of Farmer Participation Behavior

Farmers' participation behavior is influenced by various factors. Li Wenhuan et al. (2019) pointed out that social norms indirectly have a positive impact on farmers' environmental governance behavior. Li Mengmeng (2021) mentioned that farmers' environmental awareness, attitudes towards livestock and poultry waste management, and their behavioral styles have important influences on livestock and poultry waste management. Wu Yingzhen (2020), based on the Theory of Planned Behavior, suggests that local culture has a significantly positive impact on environmental behavior intentions. Fang Kexin's (2021) research shows that farmers' economic strength, social relationships, and cultural qualifications have a certain impact on their participation in rural environmental activities. Zhao Lianjie et al. (2019) proposed that environmental fairness perception and institutional trust are key factors affecting farmers' behavior. Yan Tingwu et al. (2017) found that farmers can achieve the expected results of returning straw to the fields when pursuing profit maximization.

3.3. Research on the Relationship between Villagers' Participation Intentions and Behaviors

Villagers' participation intentions are influenced by villagers' behaviors. According to social cognitive theory and the Theory of Planned Behavior, Lv Xiao et al. (2020) found that whether farmers are willing to engage in large-scale farming reflects inconsistencies between their intentions and behaviors. Jiang Wei (2021) found differences between villagers' intentions and behaviors regarding their willingness to pay for rural environmental governance labor in the Tacheng region. Zhao Junwei et al. (2019), using a Logistic regression model, discovered significant differences between farmers' willingness and behavior in the treatment of pig farm waste. Based on the Theory of Planned Behavior, Li Aoqun et al. (2019) believed that there were significant differences between farmers' intentions and behavior regarding the recycling and utilization of agricultural waste. Dong Xia et al. (2020) empirically found that farmers' ecological compensation willingness influenced ecological compensation behavior and played an intermediary role. Cui Ningbo et al. (2020) found that capital endowments and policy tools had an impact on farmers' willingness and actions in returning maize straw to the fields. Wei Dong et al. (2019) believed that institutional trust not only influenced attitude and participation intentions but also played a mediating role in adjusting attitudes.

In summary, rural environmental governance requires consideration of multiple factors, including farmers' intentions, behaviors, and factors related to society, culture, policies, etc., in order to achieve effective governance and sustainable environmental improvement.

4. The Roles of Government and Non-Governmental Organizations (NGOs) in Villager Participation

In the process of villager participation in rural environmental governance, both the government and non-governmental organizations (NGOs) play significant roles. The synergistic cooperation between these two entities is

crucial for achieving successful governance outcomes. The government plays a guiding and supporting role in rural environmental governance. It formulates relevant policies, provides necessary legal and policy support to villagers, and encourages them to actively participate in governance activities. For example, the government can offer financial support for the implementation of environmental restoration projects or provide technical and training support to help villagers enhance their environmental protection and resource management capabilities. Additionally, the government can establish regulatory bodies to ensure the compliance and effectiveness of governance activities, while strengthening penalties for environmental violations to maintain sustainability. Non-governmental organizations play an essential role in rural environmental governance. They can provide expertise and technical assistance, assisting villagers in planning and implementing environmental protection projects. NGOs can also promote community mobilization, enhance environmental awareness among villagers, and help them better understand the complexity of environmental issues. Moreover, NGOs often have easier access to international resources and partners, providing international support and resources for rural environmental governance, thereby promoting the sustainable development of projects.

The close cooperation between the government and NGOs is a key factor in achieving successful rural environmental governance. They can jointly formulate and execute project plans, share resources and information, and collaboratively address environmental issues. This collaboration ensures that governance activities are more efficient and coordinated, fully leveraging the strengths of all parties involved. The government and NGOs can also jointly monitor and evaluate the progress of projects, adjusting strategies to meet evolving environmental needs.

5. Conclusion and Recommendations

This study has explored the importance of villager participation in rural environmental governance, emphasizing the pivotal role of villager participation in rural governance from both theoretical and practical perspectives. The study concludes that villager participation not only enhances the efficiency and effectiveness of environmental governance but also promotes community cohesion, drives sustainable rural development, and reduces urban-rural disparities. Therefore, governments and NGOs should strengthen their collaboration, formulate policies that support and encourage villager participation, provide training and resource support to ensure the success of rural environmental governance. Future research and practices should focus on how to enhance villager participation intentions and actions to continually improve rural environmental governance and promote high-quality rural development. This research is expected to provide valuable references for the academic community and policymakers, facilitating further improvements and development in rural governance. In future research and practices, the following recommendations are proposed to strengthen villager participation intentions and actions for rural environmental improvement:

Cultivate and guide villager participation intentions: Future projects and policies should place more emphasis on stimulating and increasing villager participation intentions. This can be achieved through awareness campaigns, reward mechanisms, and other methods to encourage active participation in environmental protection activities.

Enhance villagers' environmental literacy and skills: To enhance villager participation capabilities, training and educational programs should be implemented to improve their environmental knowledge and skills. This will help villagers better understand environmental issues and actively engage in governance activities.

Establish more inclusive and collaborative governance mechanisms: Governments and NGOs should work together to establish more open and collaborative governance mechanisms. This includes jointly formulating project plans, sharing resources and information, monitoring project progress, and other forms of cooperation.

In-depth research into contextual differences in various regions and communities: Future research should delve deeper into the specific contexts of different regions and communities to formulate more targeted policies and projects. The differences in various regions need more attention to meet the specific needs of different areas.

Utilize a variety of research methods: Research on villager participation should employ various research methods, including case studies, field surveys, and quantitative analyses, to comprehensively understand the dynamic processes of villager participation.

In summary, rural environmental governance is a complex and critical field that requires the joint efforts of the government, NGOs, and villagers to achieve environmental protection, community development, and sustainable development goals. By strengthening villager participation intentions, improving environmental literacy, and building collaborative mechanisms, environmental challenges can be better addressed, making a positive contribution to the future of rural environmental governance.

References

- [1] Chi Shangxin, Chen Cheng, and Xu Ying. (2017). Environmental Concern and Willingness to Pay for Environmental Protection: The Moderating Effect of Government Trust and the Dilemma of Environmental Governance. *Journal of China University of Geosciences (Social Sciences Edition)*, 17(5), 72-79. (in Chinese)
- [2] Chou Manli and Zhang Xin. (2020). Research on the Effectiveness of Farmers' Participation in Rural Governance from the Perspective of Rural Revitalization. *Journal of Hubei University of Economics (Humanities and Social Sciences Edition)*, 17(11), 7-10. (in Chinese)
- [3] Cui Ningbo and Jiang Xingrui. (2020). The Influence of Capital Endowment and Policy Tools on Farmers' Intention and Behavior of Returning Corn Stalks to the Field. *Corn Science*, 28(3), 180-185. (in Chinese)
- [4] Dong Xia, Wang Lin, Cao Long, Yang Zuobin, and Ma Jianfeng. (2020). Research on Farmers' Willingness and Behavior to Participate in Ecological Compensation: A Case Study of Sunan Yugur Autonomous County, Zhangye City, Gansu Province. *Arid Zone Resources and Environment*, 34(8), 74-79. (in Chinese)
- [5] Fang Kexin. (2021). Study on Tibetan Farmers' Participation Behavior in Rural Human Settlement Environmental Improvement and Its Influencing Factors. [Doctoral dissertation, Tibet Agricultural and Animal Husbandry College]. (in Chinese)
- [6] Jia Yajuan. (2021). Study on the Choice Preference of Farmers' Participation in Household Garbage Classification Governance Based on Social Capital and Environmental Concern. [Doctoral dissertation, Northwest A&F University]. (in Chinese)

- [7] Jiang Wei. (2021). Research on Farmers' Willingness and Behavior to Participate in Rural Human Settlement Environmental Governance in Tacheng Area of Xinjiang. [Doctoral dissertation, Shihezi University]. (in Chinese)
- [8] Lei Xiaoyu. (2021). The Impact of Social Capital on Farmers' Participation in Rural Human Settlement Environmental Governance. [Master's thesis, Xi'an University of Architecture and Technology]. (in Chinese)
- [9] Li Aoqun and Li Xueting. (2019). Farmers' Intention and Behavior of Recycling and Utilizing Agricultural Waste Based on the Theory of Planned Behavior: A Case Study of Crop Straw Recycling and Utilization. *Arid Zone Resources and Environment*, 33(12), 33-40. (in Chinese)
- [10] Li Bohua and Zeng Juxin. (2019). Research on Rural Human Settlement Environment Based on the Evolution of Rural Household Spatial Behavior. *Geography and Geo-Information Science*, 5, 88-92. (in Chinese)
- [11] Li Mengmeng. (2021). Research on Tibetan Farmers' Participation Behavior and Influencing Factors in Rural Livestock and Poultry Manure Governance. [Doctoral dissertation, Tibet Agricultural and Animal Husbandry College]. (in Chinese)
- [12] Li Wenhuan and Wang Guixia. (2019). The Impact of Social Norms on Farmers' Environmental Governance Behavior: A Case Study of Livestock and Poultry Manure Resource Utilization. *Arid Zone Resources and Environment*, 33(7), 10-15. (in Chinese)
- [13] Li Yuanxun. (2019). Research on Chinese Rural Villagers' Autonomy. [Doctoral dissertation, Central Party School of the Communist Party of China]. (in Chinese)
- [14] Liang Shuming. (2006). *The Theory of Rural Construction*. Shanghai: Shanghai Century Publishing Group. (in Chinese)
- [15] Liu Miaomiao. (2019). Research on Farmers' Participation Behavior and Influencing Factors in Environmental Governance. [Master's thesis, Hebei University of Economics and Business]. (in Chinese)
- [16] Lv Xiao, Zang Tao, and Zhang Quanjing. (2020). The Impact Mechanism and Differences of Farmers' Intention and Behavior in Large-Scale Farming: Empirical Evidence from 379 Farmer Surveys in Three Counties in Shandong. *Journal of Natural Resources*, 35(5), 1147-1159. (in Chinese)
- [17] Mao Xinmin, Huang Senwei, and Wang Yijia. (2019). The Influence of Social Capital on Farmers' Willingness to Participate in Environmental Governance: An Empirical Study on Fujian Rural Environmental Improvement Project. *Journal of Shijiazhuang Tiedao University (Social Science Edition)*, 13(1), 40-47. (in Chinese)
- [18] Wang Xueting, Zhang Junbiao, and Tong Qingmeng. (2020). Does Local Attachment Help Improve Farmers' Willingness to Participate in Rural Environmental Governance? An Analysis Based on Survey Data from Hubei Province. *China Population, Resources and Environment*, 30(4), 136-148. (in Chinese)
- [19] Wei Dong, Liu Hongyuan, and Sun Yuping. (2019). The Impact of Institutional Trust on Farmers' Intention to Participate in Environmental Governance Decision-Making. *Soft Science*, 33(7), 111-115. (in Chinese)
- [20] Wu Liangyong. (1996). Mahbub ul Haq's Academic Thoughts and Enlightenment on Human Settlements Science. *Urban Planning*, (1), 30-41+48. (in Chinese)
- [21] Wu Liangyong. (2001). *Introduction to Human Settlement Science*. Beijing: China Architecture & Building Press. (in Chinese)
- [22] Wu Yingzhen. (2020). Analysis of Factors Affecting Farmers' Environmental Behavioral Intention in Jinniu Town. [Master's thesis, Beijing Forestry University]. (in Chinese)
- [23] Xu Tingting. (2019). Research on the Current Situation and Countermeasures of Rural Environmental Protection in China. Jilin: Jilin People's Publishing House. (in Chinese)
- [24] Yan Tingwu, He Ke, and Zhang Junbiao. (2016). The Impact of Social Capital on Farmers' Investment Intention in Environmental Protection: An Empirical Study on the Resource Utilization of Agricultural Waste in Rural Areas of Hubei Province. *China Population, Resources and Environment*, 26(1), 158-164. (in Chinese)
- [25] Yan Tingwu, Zhang Tongchao, He Ke, et al. (2017). Research on Farmers' Decision-Making Behavior of Crop Straw Returning: An Empirical Study Based on Surveys in Seven Provinces including Anhui and Shandong. *Issues in Agricultural Economy*, 38(4), 39-48+110-111. (in Chinese)
- [26] Yu Bin. (2007). Research on the Evolution of Rural Residential Area Systems and Optimization of Human Settlement Environment in the Process of Urbanization. [Doctoral dissertation, Central China Normal University]. (in Chinese)
- [27] Zhao Junwei, Jiang Hao, Chen Yongfu, et al. (2019). Analysis of Influencing Factors on the Behavior of Large-Scale Pig Farming Manure Governance from the Perspective of Intention-Conversion-Behavior. *Journal of Natural Resources*, 34(8), 1708-1719. (in Chinese)
- [28] Zhao Yake. (2020). Research on Farmers' Participation Intention in Rural Human Settlement Environmental Governance in Henan Province. [Doctoral dissertation, Harbin Engineering University]. (in Chinese)
- [29] China Agenda 21 Management Center. (1994). *China Agenda 21: China 21st Century Population, Environment, and Development White Paper*. China Environmental Science Press. (in Chinese)
- [30] Asami Y. *Residential Environment: Methods and Theory for Evaluation*. [M]. University of To-kyo Press, 2001.
- [31] C.A. Doxiadis, Athropolopolis. *City for human development* [M]. Athens: Athens Publishing Center, 1975.
- [32] Mohit M A, Ibrahim M, Yong R R. Assessment of residential satisfaction in newly designed public low-cost housing in Kuala Lumpur, Malaysia[J]. *Habitat International*, 2010, 34(1):18-27.
- [33] Mues A, Manders A, Ulft B V, et al. Investigating Differences in Air Quality Between Urban and Rural Regions Under Current and Future Climate Conditions[J]. *Nato Security Through Science*, 2014:19-23.
- [34] Savchenko A, Borodina T. Rural Architectural and Planning Forms as a Source of Diversity for Urban Environment (Case Study of Moscow)[J]. *European Countryside*, 2017, 9(3).
- [35] Wiley J. *Rural sustainable development in America*[J]. *Regional Studies Association*, 1998, 32(2):199-207.