

Study on the problem-oriented collaborative strategy mechanism for local construction of northeast countryside

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Abstract. Under the background of starting the new round of the revitalization of the northeast economy in China, there is a pressing need to set up new idea of the development of the innovative urban - rural integration. Regarding the form of the collaborative construction in the practice of rural construction in recent years as cutting point, through the internal order analysis, seeking problems, classification and analysis of the basic investigation data of typical villages in the countryside of the Northeast and oriented by the problems, the paper presents the applicable and feasible construction strategies suitable for the development of countryside step by step, so as to establish the collaborative mechanism of "up-down collaboration, internal-external coupling, extensive participation, rooting in rural areas and perpetual development", which aims at providing the rule, method and idea with universal significance for the overall revitalization of the northeast countryside.

1. Research background and research status at home and abroad

1.1 Research background

In recent years, the national strategy has paid close attention to the issue of "Northeast Revitalization" and "Rural Development". The uneven distribution of resource increases the urban and rural differences, together with the continuous decline in northeast economic development in recent years, rural development has been constrained. Northeast countryside is an important part of Chinese traditional culture and regional diversity. It has a relatively independent social organization and complete system. How to be based on the northeastern regionalism, activate the dilemma faced by the northeast countryside, study the rural activation mechanism with universal significance, characteristics and laws and achieve the goal of inheritance and development of northeast countryside has become an important topic to be focalized.

1.2 External research status

Foreign theoretical research on rural construction has been started early with mature practice models, such as American model of being driven by urbanization, Canadian model of government becoming the partner of farmers, Japanese model of being driven by intermediaries, German model of being driven by rural industrialization, Swedish model of being promoted by farmer cooperative organizations, Danish model of attaching importance to the development of highly efficient and



export-oriented agriculture and achieving remarkable results, Holland model of relying on scientific and technological innovation for the development of high quality and efficient agriculture and creating a miracle, Australian model of increasing labor productivity with the coexistence of extensive and intensive types, and South Korean model of being promoted by the government, etc. [1]

1.3 Domestic research status

In the process of rapid promotion of urbanization, the reality of the gradual marginalization and hollowing of rural areas as well as the rapid advancement of the beautiful rural construction around the country has put forward urgent requirements on the study of rural construction. But relevant research is still at the primary stage of fragmentation on the whole, and its main shortcomings include: most are policy propaganda and document interpretation, with less academic nature. For the corresponding research strategy regarding the rural problems, the feasibility and applicability need to be strengthened in both research and practice; staggered and mixed living of all the nations with each other creates rich and diverse cultural patterns in different areas. The research is not comprehensive, and the study and practice on historical evolution of the northeast national settlement and contemporary theories is not very deficient. The research perspectives and the subject position are relatively simple, and lack of analysis from the problem study-oriented perspective and multi-subjective perspective. [2]

2. Rural basic research, focusing on existing problems

2.1 Basic research on the investigation and analysis of rural information data in the northeast minority areas.

By combining with the basic research topic of rural human settlements of the Ministry of Housing and Urban-Rural Development and collaborating with such ten universities as Tongji University, etc. in China, deep investigation on the northeast countryside, questionnaire, interview, surveying and mapping and video shooting of Manchu, Korean, Mongolian and other ethnic settlement villages is conducted.

- (1) Interview with the stay-at-home villagers - questionnaire survey and photographing (family environment and interviewee).
- (2) Photos of interview with key figures (village party secretaries and village heads), public facilities and village environment.
- (3) Interview with migrant workers – enterprises with intensive employment.
- (4) Interview with leaders of employment enterprises.
- (5) Interview with the county-level leaders in charge of rural construction and interview with relevant functional departments.

By combining with the specialized teaching and social practice and internship, the training on investigation techniques and methods is made to ensure that the information on the questionnaire is accurate.

2.2 According to the typological method, the rural internal order is analyzed, and the existing focus problems are sought out and induced.

2.2.1 According to the investigation data, classification research is made, the internal order and main existing problems are sought out.

Regional attribute, national attribute, geographical attribute (plain and hill), economic attribute (developed and backward), social attribute, cultural attribute, historical attribute, spatial attribute, resource attribute, traffic attribute, population structure attribute, religious attribute, etc.

2.2.2 Analysis of the problem

- (1) Regional cultural aphasia

- (2) Environment and ecological degradation
- (3) Economic and industrial decline
- (4) Morphological convergence of space
- (5) Resource and population loss
- (6) Endogenous power insufficiency

3. Performance of problem-oriented study on the type, role and strategy of local collaborative construction

3.1 Types of collaborative construction

- (1) Taking the construction of national or local government as the leading factor and rural independent construction as a supplement, dominated by specific incidents, overall planning and construction is planned, made, managed and implemented.
- (2) Dominated by the volunteer group, rural reform movement focusing on social activities and rural education is developed.
- (3) Rural construction under the guidance of architects and relevant professional teams.
- (4) Public welfare construction activities are carried out by social organizations.
- (5) Rural construction model of "art going to the countryside" by artists and cultural scholars.
- (6) Example of non-governmental local rural construction initiated by villagers themselves. [3]

3.2 Role of collaborative construction

- (1) Rural construction is a complex and systematic project. Collaborative construction is a kind of involvement by all kinds of forces as well as all-round practice of rural culture, industrial development, environmental governance, rural economy and community management, etc.
- (2) Demonstration, construction guiding and promotion of follow-up development based on the principle of voluntary participation. In the process of construction, the cooperation power of all the collaborative agents is mobilized, limitations are agreed upon, responsibilities are emphasized, and access rules are prepared.
- (3) Collaborative construction has large differences with various ways of intervention and uneven action effect. It is a process of continuous debugging and ceaseless update. [4]

3.3 Strategy of collaborative construction

- (1) Place shaping of collaborative construction is the thinking foundation leading to organic order.
- (2) Wide and sufficient public participation is the fundamental power leading to organic order.
- (3) The design strategy with flexible control is the technical means leading to organic order.
- (4) The collaboration system of resource sharing is system guarantee leading to organic order.

4. Study on the collaborative mechanism of local construction

4.1 The system mechanism of "overall planning and authentic organization derivative"- top-bottom collaboration

Firstly, as for collaborative construction, it is necessary to set up the top-most system design from the most basic material design, self-organized construction of villagers from bottom to top and the overall planning of the government from top to bottom, so as to build the top-bottom collaboration mechanism.

4.2 The action mechanism of "urban external force driving and rural internal force excitation" - internal-external coupling

Urban external force driving: external thrust is formed from such resources as urban capital, science and technology policy, etc. -object

Internal order of the village: the activated internal power is continuously fermented. - subject

4.3 The operating mechanism "dominated by local construction and coordinated by organizations from various circles" - extensive participation

4.3.1 Local construction of the "construction camp"

- (1) Historical context inheritance of rural structure and style.
- (2) Protection and optimization of the vernacular architecture as well as application of green building technology.
- (3) Perfection of the continuous development process towards the direction of integrity and adjustability.
- (4) Vernacular integration of local materials, skills, local aesthetics and ecological technology.
- (5) Summary and sublimation of folk construction thoughts from the environment of context inheritance.

4.3.2 Coordination of resource integration design

- (1) Classification, transformation and coordination of different cultural conditions in rural settlements.
- (2) Adjustment and upgrade of the dominating and distinctive industries to promote industrial development.
- (3) Taking caring as the root, respecting users, and keeping dynamic balance of regional rural values.
- (4) Developing and integrating the landscape and ecological agriculture with identification and belongingness and traditional handicraft and culture industry, strengthening the use, and promoting the comprehensive upgrade of ecology, business format and pattern.
- (5) Breaking the narrow limits of regions and nations through the participation and driving of international cooperation agencies and volunteers to show international influence.

4.4 The education mechanism of "independent promotion by the villagers and local cultivation of county sages" - sustainable development

4.4.1 Independent promotion by the villagers

- (1) Promotion and autonomy of villagers' subjective consciousness.
- (2) Passing on the torch of learning by folk craftsmen.

4.4.2 Local education of county sages

- (1) Organizing students to participate in the practice of rural construction and reshaping the educational consciousness through "the cooperative construction society".
- (2) Providing a platform for intellectuals and scholars who are committed to rural construction.

4.5 The development mechanism of "modern science and technology promotion" and "natural ecology integration" – perpetual development

4.5.1 "Modern science and technology promotion"

- (1) Instruction of modern technology through the field
- (2) Construction of think tank and e-commerce based on "network media", establishment of villagers' community network participation platform

4.5.2 "Integration of natural ecology"

- (1) Principle of minimal intervention to the natural environment
- (2) Principle of harmonious coexistence of society, environment and ecology.

5. Rural construction experiment of "Collaborative Construction Society"

Rural cultural buildings in typical ethnic areas are chosen to carry out a series of collaborative work, such as repair, construction, establishment and operation of rural self-organization, etc. During the construction course, the first clue is rural reconstruction and update cases with flexible policy and

professional participation as supplement, and another clue is the practical activities of the rural construction society driven by the private organizations and enterprises keening on rural construction, both of which are taken as experiment means to study the experimental construction and activities developed in the northeast countryside, and inspect the applicability and sustainability of the rural catalysts theory. According to the experiment results, through the return visit on the use of the villagers and the questionnaire survey on satisfaction, comprehensive and dynamic evaluation of rural update projects are carried out. Based on the analysis and evaluation of the experimental data, this paper presents more optimized and reasonable activation mechanism of collaborative construction and self-operation in the villages in Liaoning. The practice way of the actual project here is different from the top-down urbanization construction ways resulting in the rural homogenization at the present stage, aiming at making the policy and capital level flexible, weakening the professional and technical intervention and protecting the gene inheritance in rural area.

The system relationship of up-down collaboration is established under the interaction between the government operating from top to bottom and villages operating from bottom to top; rural collaborative construction mechanism focusing on self-construction of villagers is formed reasonably aided by urban capital, technologies and other resources as the external driving force, through local construction practice from bottom to top, attraction of the participation of wide range of rural traditional craftsmen and villagers, enhancement of the villagers' self-recognition and self-confidence on the rural area, exploration of internal factors of rural settlements in the region, nationality, religion, customs, blood ties, culture, history, nature etc. and coupling with urban external force, aiming at improving the quality of human settlement environment and revitalizing the home village in an all-round way. [5]

In summary, refining a kind of mode and theoretical experience with strong innovation and operability will provide theoretical basis for the systematic study on rural construction. Improvement of the rural construction system through scientific means has certain theoretical significance. At the same time, the rural revival plays an important role in enriching the economic structure levels and industrial collaboration. Its innovative development mode will also have a positive interaction with the city. Meanwhile, the "collaborative construction society" way features low involving cost, high efficiency, strong linkage and high adaptability. "Construction Society" work can accumulate teaching experience, and improve the interaction, thus contributing to strengthening specialty construction, training local talents and guiding county sages to be local, with relatively strong practical significance.

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