
Comprehensive Evaluation and Empirical Analysis of Digital Rural Construction in Zhejiang Province-Based on the Investigation of Songyang County, Lishui City

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Abstract – In this paper, Songyang County, Lishui City, Zhejiang Province as an example, the method of literature research, field research, questionnaire analysis, systematically evaluated the level of county digital rural construction. The study showed that Songyang County digital rural construction has made positive progress, digital infrastructure index, digital public service index reached 87.6, 85.4, digital governance and digital industry development index were 80.1, 78.2, digital rural development index was 82.7, ranking the forefront of the city. Songyang County in light of local conditions to explore the "enclave economy" "future village" and other model innovation practices, for the province's digital rural construction provides a useful reference. But there are also problems such as insufficient top design, urban and rural digital divide, lack of digital talents. Horizontal comparison found that Zhejiang Province digital rural construction showed obvious gradient distribution characteristics, Lishui as an underdeveloped mountainous area, started relatively late, but is catching up, catch up. The main experience of Zhejiang digital rural construction includes: high-level promotion, in light of local conditions, innovation leading, consolidate the foundation, demonstration leading. In the future, we should further overall planning, focus on demand, innovation mode, deepen reform, cultivate talents, promote the digital rural construction at a high level, provide more "Zhejiang model" for the whole country.

Keywords – Digital Rural, Comprehensive Evaluation, Comparative Analysis, Countermeasures and Suggestions, Lishui, Zhejiang.

I. INTRODUCTION

At present, the digital wave is profoundly reshaping the aspects of China's economic and social development. The modernization of agriculture and rural areas, as an important part of building a socialist modern country in an all-round way, is no exception affected by the digital technology revolution. The report to the 19th National Congress of the Communist Party of China clearly put forward the implementation of the rural revitalization strategy and stressed the need to accelerate the modernization of agriculture and rural areas. The No.1 Central document in 2019 further pointed out that it is necessary to accelerate the construction of digital villages and lead the drive for rural revitalization. Zhejiang Province, as a pioneer in the development of digital economy, has vigorously promoted the construction of "digital countryside" in recent years, and has achieved positive results and valuable experience. In this paper, Songyang County, Lishui City, Zhejiang Province, is selected as the research object, and the development status, characteristic practices and existing problems of the digital village construction in Songyang County are deeply analyzed by using field investigation and questionnaire analysis, and the basic picture, development law and valuable experience of the digital village construction in Zhejiang Province are revealed by horizontal comparison with other counties and urban areas in Lishui City and other areas in Zhejiang Province. On this basis, a scientific comprehensive evaluation index system of digital village is constructed, and the effectiveness of digital village construction in Songyang County is

comprehensively evaluated by using hierarchical analysis and other methods, and its advantages and shortcomings are analyzed, and policy suggestions for further improvement are put forward. This study has important theoretical value and practical significance for better understanding the development law of digital village construction in Zhejiang Province, scientifically judging the performance of digital village construction, and promoting agricultural and rural modernization and rural revitalization. At the same time, the comprehensive evaluation index system and evaluation method of digital countryside constructed in this study also have important reference value for guiding all localities to scientifically promote the construction of digital countryside and realize the evaluation, accountability and dynamic optimization of the effectiveness of digital countryside construction.

II. CONSTRUCTION OF COMPREHENSIVE EVALUATION INDEX SYSTEM OF DIGITAL RURAL CONSTRUCTION

2.1. Construction Principles of Evaluation Index System

Table 2.1. Principles for the construction of the evaluation indicator system.

Principles	Content
Scientific	The construction of the indicator system should follow objective laws, respect the inherent logic of digital rural development, achieve scientific indicator selection, reasonable classification, and strict logical consistency.
Systematic	The indicator system should comprehensively reflect various aspects of digital rural development, including economic, social, cultural, ecological, and other dimensions, ensuring completeness without redundancy, with each aspect being indispensable.
Operational	The indicator system should be appropriately simplified, preferably selecting indicators that are easy to quantify and obtain data for, avoiding overly complex and difficult-to-measure indicators to ensure operability in the evaluation process.
Dynamic	The indicator system should reflect the phased characteristics of digital rural development. Accordingly, evaluation indicators should be set based on different development stages and the characteristics of different types of regions, with adjustments made timely as needed.

2.2. Selection of Evaluation Indicators

Table 2.2. Evaluation Indicator Selection.

Level 1 Indicators	Level 2 Indicators	Level 3 Indicators
Digital Village Infrastructure	Network Infrastructure	4G/5G Network Coverage Rate, Fiber Broadband Penetration Rate, Rural Internet Penetration Rate
	Application Infrastructure	Digital Agriculture Application Platform, Smart Agriculture IoT Devices, Agricultural Product Quality and Safety Traceability System
Digital Village Industry Development	Digitalization of Agricultural Production	Scale of Agricultural IoT Applications, Level of Agricultural Production Automation, Proportion of Digital Agricultural Machinery Applications
	Digitalization of Agricultural Product	Proportion of Digitized Processing Workshops,

Level 1 Indicators	Level 2 Indicators	Level 3 Indicators
	Processing	Popularization Rate of Digitized Warehousing and Logistics Facilities
	Digitalization of Agricultural Product Marketing	E-commerce Transaction Volume, Online Retail Sales, Sales Volume from Livestreaming Shopping
Digital Rural Public Service	Digital Education	Quantity of Online Educational Resources, Remote Teaching Coverage Rate, Number of Online Learners
	Digital Healthcare	Remote Healthcare Coverage Rate, Electronic Health Record Adoption Rate, Volume of Online Medical Consultations
	Digital Culture	Digital Cultural Museum Coverage Rate, Participation Rate in Online Cultural Activities, Supply of Digital Cultural Products
Digital Rural Governance	Digital Governance	Online Processing Rate of Government Services, Online Service Coverage Rate, Level of Information Technology in Village Affairs Transparency
	Digital Management	Video Surveillance Coverage Rate, Adoption Rate of Digital Management Platforms, Rate of Online Problem Reporting and Resolution

2.3. Evaluation Methodology Selection

Table 2.3. Evaluation Method Selection.

Evaluation Methodology	Advantages	Disadvantages
Analytical Hierarchy Process(AHP)	It is capable of handling qualitative and quantitative indicators and is suitable for evaluating complex systems with multiple levels and objectives.	The subjectivity in assigning weights to indicators affects the objectivity of the evaluation results.
Entropy weighting method	Weights are assigned based on the degree of variation in indicator values, ensuring strong objectivity.	It fails to reflect the subjective understanding of indicator importance.
Composite Index Method	It is simple, practical, and easy to understand and apply.	Simple linear weighting of indicators leads to distortion of evaluation result information.
Data Envelopment Analysis (DEA)	Based on an input-output model, it can assess the relative efficiency of the evaluation object.	It requires high data quality and is not suitable for situations with a large number of indicators.

Considering the characteristics and data availability of digital rural construction evaluation, this study chooses the combination of analytic hierarchy process and entropy weight method to build a comprehensive evaluation model. Firstly, AHP is used to determine the subjective weight of each index, then entropy weight method is used to calculate the objective weight, then weighted average method is used to synthesize the weight of each index, and finally comprehensive index method is used to obtain the evaluation result of the construction level of digital countryside.

III. EMPIRICAL ANALYSIS OF DIGITAL VILLAGE CONSTRUCTION IN SONGYANG COUNTY

3.1.1. Overview of Natural Economy

Songyang County is located in the southwest of Zhejiang Province, in the hinterland of Lishui City, with a total area of 1406 square kilometers. The landform of the county is mainly low mountains and hills, the terrain is mainly mountainous, and the altitude is below 500 meters. It is a subtropical monsoon climate with four distinct seasons, abundant rainfall, warm and humid climate, which is very suitable for crop growth.

In recent years, the economic and social development of Songyang County is good, and the comprehensive strength is constantly improving. In 2021, the county achieved a gross regional product of 12.908 billion yuan, an increase of 5.4%; Total government revenue was 1.406 billion yuan, up 2.7%; The investment in fixed assets was 5.744 billion yuan, up by 12.1%; Total retail sales of consumer goods totaled 6.284 billion yuan, an increase of 10.6%. The third industrial structure ratio is 10.8:38.0:51.2, and the industrial structure is continuously optimized. The total output value of agriculture, forestry, animal husbandry and fishery will reach 2.032 billion yuan by 2021. The industrial economy grew steadily, with a total output value of 16.557 billion yuan. With the vigorous development of digital economy, online retail sales reached 5.186 billion yuan, ranking fourth in the province in terms of growth rate.

Table 3.1. Main Economic Indicators of Songyang County (2021).

Target	Numerical Value	Growth Rate
Gross Regional Product (GRP)	12.908 billion	5.4%
Total Fiscal Revenue	1.406 billion	2.7%
Fixed Asset Investment	5.744 billion	12.1%
Total Retail Sales of Consumer Goods	6.284 billion	10.6%
Total Output Value of Agriculture, Forestry, Animal Husbandry, and Fishery	2.032 billion	4.7%
Total Industrial Output Value of Industrial scale	16.557 billion	21.2%
Online Retail Sales	5.186 billion	58.0%

At present, Songyang County is in the stage of rapid development of new industrialization, information technology and urbanization, the fundamentals of economic development have been improving for a long time, the transformation of development momentum and the transformation of development mode have been accelerated, which has laid a good material and technological foundation for the construction of digital countryside in the county. In the future, Songyang should seize the opportunities for digital development, adhere to ecological county, industrial strong county, urban and rural integration development, accelerate the pace of digital transformation and high-quality development, and promote the construction of digital countryside to achieve greater results.

3.1.2. Foundation of Digital Countryside Construction

In recent years, Songyang County attaches great importance to the development of information technology, focusing on the goal of "building digital Songyang", vigorously implement digital empowerment projects, accelerate the pace of digitalization of agriculture, industry and governance, and make positive progress in the construction of digital villages, laying a solid foundation for the county's digital development and rural revitalization.

In terms of digital infrastructure construction, the county accelerated the coverage and upgrading of information infrastructure, achieved full coverage of optical fiber and 4G networks in administrative villages, built 319 5G base stations, and formed a new generation of high-speed, ubiquitous and integrated information infrastructure system. The province's first county-level big data center has been built, with a computing power of more than 3,000 trillion times. Rural infrastructure has been built and upgraded, and the construction of digital village pilot demonstration projects has been promoted.

In terms of the development of digital industry, Songyang vigorously cultivates and expands the digital economy, vigorously develops new business forms and new models such as e-commerce and digital cultural tourism, and builds characteristic industrial clusters such as "enclave economy" and "live streaming e-commerce". In 2021, online retail sales reached 5.186 billion yuan, with a growth rate of 58%, ranking fourth in the province and first in the city. We will actively introduce leading enterprises in the digital economy, accelerate the digital transformation of traditional industries, basically complete the industrial Internet platform system, and the value added of core industries in the digital economy will account for more than 15% of GDP.

In terms of digital rural governance, Songyang accelerated the construction of digital government and smart city, the proportion of government services "One Netcom office" reached 90%, and the county's comprehensive governance capacity was significantly improved. Information services that benefit farmers, such as "connecting every village" and "benefiting every household," were fully implemented, and government services were extended to rural areas. Build a digital rural comprehensive service platform integrating the functions of benefiting agriculture, agricultural technology, and culture, open the "village sound" broadcast, develop "cloud party building", and create a rural digital governance model with Songyang characteristics.

In general, Songyang County digital village construction has made positive progress in infrastructure, industrial development, rural governance and other aspects, but there is still a large gap compared with advanced areas, and the breadth and depth of digital village development needs to be further expanded. In the next step, Songyang should increase overall planning, strengthen factor guarantee, innovate the system and mechanism, speed up the shortcomings and weaknesses, promote the construction of digital countryside to a new level, and provide strong support for the comprehensive promotion of rural revitalization.

3.2. Data Source and Processing

The data used in this study are mainly from the statistical yearbook, statistical bulletin and survey data provided by Songyang County Statistics Bureau, as well as some administrative record data from government departments. The data of statistical yearbook and bulletin were mainly obtained by literature research. The survey data and administrative record data are obtained through field investigation and questionnaire survey. In order to ensure the authenticity and reliability of the data, the original data were reviewed, corrected and supplemented as necessary. In order to improve the quality of data, interpolation method is used to process individual missing data, and elimination method is used to eliminate outliers.

3.3. Comprehensive Evaluation Results and Analysis

In order to comprehensively evaluate the level of digital village construction in Songyang County, this paper constructs a comprehensive evaluation index system covering four dimensions, including digital infrastructure, digital industry development, digital public service and digital governance. Using analytic hierarchy process to

determine the weight of each index, combined with statistical data and questionnaire survey results, calculate the score of each single index and sub-index, on the basis of the weighted average method to obtain the digital rural construction comprehensive index.

3.3.1. Analysis of Evaluation Results of Each Index

From the sub-index, the digital infrastructure index of Songyang County is the highest, 87.6 points (percentage system, the same below), reflecting that Songyang County has vigorously implemented the construction of information infrastructure in recent years, the coverage rate of network facilities has been greatly improved, and the supply capacity of information infrastructure has been significantly enhanced, laying a solid foundation for the development of digital countryside. The digital public service index was 85.4 points, ranking second. Thanks to Songyang's efforts to develop digital public services such as "Internet + education" and "Internet + medical care", public service resources such as education, medical care and culture have accelerated to extend to rural areas, and farmers' sense of gain has continued to increase.

The digital governance index and digital industry development index are 80.1 and 78.2 points respectively, which are generally in the middle level. In recent years, Songyang has accelerated the construction of "smart agriculture" and "digital agriculture", and the digital and intelligent level of agricultural production has been continuously improved. We will vigorously develop "Internet plus" new industries and new models in rural areas, and accelerate the growth of new business forms such as rural e-commerce and leisure agriculture. However, compared with advanced areas, the scale and concentration of digital industry development needs to be further improved. In terms of digital governance, Songyang actively promotes "Internet + government services" and digital safety construction, vigorously builds a digital village management platform, and significantly improves its digital governance capacity, but the deep integration of digital technology and rural grass-roots governance needs to be further strengthened.

The evaluation results of each index can be seen in the following table:

Table 3.3. Evaluation results of digital rural development in Songyang County.

Level 1 Indicators	Level 2 Indicators	Individual Indicator Score	Sub-Index
Digital Infrastructure	Network Infrastructure	88.2	87.6
	Application Infrastructure	86.5	
Digital Industry Development	Digitalization of Agricultural Production	79.3	78.2
	Digitalization of Agricultural Product Processing	75.6	
	Digitalization of Agricultural Product Marketing	80.4	
Digital Public Services	Digital Education	86.2	85.4
	Digital Healthcare	83.8	
	Digital Culture	87.1	
Digital Governance	Digital Governance	82.3	80.1
	Digital Management	77.6	

3.3.2. Comprehensive Evaluation Results and Ranking

Based on the sub-index and calculated by weighted average method, the comprehensive index of digital rural construction in Songyang County is 82.7 points, ranking the third among the nine counties and cities in the city, ranking the forefront of the province. Among them, the construction of digital infrastructure and digital public services has achieved remarkable results and contributed greatly to the improvement of the comprehensive index, but the development of digital industry and digital governance are relatively lagging behind, which restricts the overall level of digital village construction.

By county type, Songyang County, as a large mountainous county with agriculture and rural areas, has a comprehensive index significantly higher than the provincial average and most plain agricultural counties, which reflects the first-mover advantage of digital rural construction in Songyang County and sets a good benchmark for similar regions in the province. However, compared with the strong industrial and commercial counties with strong economic strength, there is still a big gap, the future still needs to increase investment, deepen reform, on the basis of consolidating and improving the existing advantages, focus on seeking new breakthroughs in digital industry, digital governance and other aspects, and constantly improve the overall level and comprehensive benefits of digital rural construction.

The comparison of digital rural index between Songyang County and surrounding counties and cities is as follows:

Table 3.4. Digital countryside index comparison between Songyang County and Surrounding Counties and Cities.

Region	Digital Infrastructure	Digital Industry Development	Digital Public Services	Digital Governance	Composite Index	Rankings
Songyang County	87.6	78.2	85.4	80.1	82.7	3
A County	83.1	81.4	84.3	82.6	82.8	2
B County	79.8	76.5	81.6	79.2	79.2	5
C City	88.4	84.2	86.1	84.8	85.8	1
D County	82.5	77.1	82.9	80.6	80.7	4

3.4. Characteristic Methods of Digital Rural Construction

Based on the actual situation of the county, Songyang County actively explores the development path of digital countryside that conforms to the actual situation of Songyang County, and has formed a number of effective characteristic practices and innovative models:

First, we will innovate the development model of "enclave economy". Relying on Lishui Airport and other transportation hubs, with the help of the Internet platform, new business forms such as "enclave enterprises", "Enclave parks" and "Enclave services" have been created, and the integrated development of the first, second and third industries has been realized. Through the "enclave" model, Songyang's high-quality agricultural products such as bamboo, wood and tea have attached information wings and caught the express train of e-commerce, achieving seamless docking from the field to the consumer terminal, and expanding the new space for agricultural development.

Second, actively build a new model of "Party building on the cloud". We will strengthen the informationization-

-on of grass-roots party organizations in rural areas, develop grass-roots party building management information systems and mobile terminals, and build a study and education management system for Party members that combines online and offline. The "village sound" broadcast was launched throughout the county to convey the Party's voice. Innovative mobile branch "handheld office" model to promote grassroots party building work to improve quality and efficiency.

Third, accelerate the digital transformation of traditional villages to create a model of "future villages". We will adhere to planning guidance and put people first, carry out pilot projects for the digital transformation of traditional villages, build new infrastructure such as smart water, electricity, roads, tourism and medical services, develop new business forms such as digital cultural tourism and homestay economy, and use digital technologies to stimulate new vitality in the development of traditional villages. Among them, high-speed village was selected as the first batch of future village pilots in the country, creating a future village model with the deep integration of traditional villages and modern science and technology.

Fourth, we will vigorously implement the "digital benefits for the people" project. We will accelerate the extension of government services to rural areas, and provide one-stop services to all administrative villages. Relying on the service platform of Yinong, agricultural technology and culture, we will continuously enrich and improve the service functions for the convenience of the people, and realize "village access" and "household enjoyment". We will coordinate and integrate education, medical care, culture and other public service resources to provide farmers with more convenient and efficient public services.

3.5. Problems in the Construction of Digital Countryside

Songyang County has made positive progress in the construction of digital villages, but there are still many outstanding problems and weak links for the high-quality development goal compared with advanced areas inside and outside the province:

First, the top-level design needs to be further strengthened. Although the digital village construction plan has been formulated, it still lacks systematic and overall planning, and the scientific and operational planning needs to be improved. The synergy and compatibility between different plans are insufficient, and the effective connection with special plans such as land, industry and people's livelihood needs to be further strengthened.

Second, urban and rural digital development is unbalanced and inadequate. Affected by the economic base and location conditions, there is still an obvious digital divide in Songyang County. Digital infrastructure such as communication networks and application services in rural areas, especially in remote mountainous areas, is still weak, and the gap with urban areas is large. It is urgent to further increase investment to narrow the digital gap between urban and rural areas and between regions.

Third, the efficiency of digital factor allocation needs to be improved. The development and utilization of agricultural and rural big data resources is insufficient, the massive data owned by the government, enterprises and society has not been fully integrated and shared, the data value mining is not enough, and the market-oriented allocation mechanism of data elements has not been effectively established, which restricts the role of digital elements in empowering rural development.

Fourth, the grass-roots informatization talent shortage. The lack of digital management and application talents

in rural areas, the digital literacy of farmers is generally not high, and the information awareness and ability of grass-roots cadres need to be improved, which restricts the pace and application effectiveness of digital rural construction to a certain extent.

Fifth, relevant institutional obstacles need to be removed. Information sharing in agriculture-related departments is insufficient, policy convergence is not in place, and there is a lack of sound big data sharing and open mechanisms. In terms of investment, construction and operation of digital village projects, the relationship between the government and the market has not been straightened out, the transformation of government functions is not in place, and there is still a certain mismatch between policy supply and market demand.

These problems reflect the realistic challenges of unbalanced and inadequate development of Songyang digital countryside, and it is necessary to raise the strength of the whole county, strengthen overall planning, deepen reform and innovation, accelerate the repair of outstanding weaknesses, promote the construction of digital countryside to a new level, and plug in information wings for the comprehensive revitalization of rural areas.

IV. COMPARATIVE ANALYSIS AND EVALUATION METHOD SELECTION OF DIGITAL VILLAGE CONSTRUCTION IN ZHEJIANG PROVINCE

4.1. Overall Situation of Lishui Digital Village Construction

Lishui City, as an important position in the construction of digital countryside in Zhejiang Province, has fully implemented the digital empowerment rural revitalization action in recent years, coordinated the construction of rural digital infrastructure, vigorously developed new industries and new formats such as digital agriculture and rural e-commerce, innovated new models of rural governance based on digital technology, and promoted the formation of a number of fresh examples and typical experiences in the development of digital countryside. In 2021, the rural Internet penetration rate of Lishui City reached 62%, the city has built 8532 5G base stations, and the 4G coverage rate of natural villages reached 98.1%. The city's online retail sales of agricultural products reached 14.68 billion yuan, ranking first in the province. Longquan City was identified as the national digital rural pilot area, and Jinyun County was selected as the national digital rural industrial integration development demonstration county. By the end of 2022, the city has built five provincial-level digital agriculture demonstration counties and 37 digital agriculture demonstration zones. The deep integration of digital technology with agriculture and rural areas in mountainous areas has strongly driven the modernization of agriculture and rural areas and the comprehensive revitalization of rural areas.

Table 4.1. Main Indicators of Digital Rural Development in Lishui city.

Target	Numerical Value
Rural Internet penetration rate	62%
Number of 5G base stations (units)	8532
Natural village 4G coverage rate	98.1%
Online retail sales of agricultural products (billion yuan)	14.68
Digital Agriculture Demonstration County (nos.)	5

Target	Numerical Value
Digital Agriculture Demonstration Zones (nos.)	37

4.2. Construction of Digital Villages in Other Regions of Zhejiang Province

All parts of Zhejiang Province are actively exploring new paths for the development of digital villages, and the construction of digital villages is showing a good trend. In 2021, the Internet penetration rate in rural areas of the province will reach 68.5 percent, and 4G coverage in natural villages will reach more than 99 percent. The "gigabit optical network" extends to administrative villages and above, and gigabit broadband covers all towns and villages. Hangzhou, Ningbo, Shaoxing, Jinhua and other cities actively promote the digital integration of urban and rural development, accelerate the digital transformation of agriculture and rural e-commerce development, and a number of typical cases have emerged, such as Anji white tea "cloud" trading, Deqing smart agriculture, Zhuji digital tea Garden. Taizhou explored the "live broadcast + agricultural assistance" model, Wenzhou built the country's first city-level digital agriculture platform, and Cangnan built the province's first 5G fishery demonstration zone. Jiaxing promotes intelligent agricultural production and sales of agricultural products on the "cloud", and Huzhou has built a number of smart agricultural industrial parks. Zhoushan will accelerate the digital transformation of its Marine economy and build a national demonstration zone for Marine economic development. Quzhou has built a 5G smart tea garden and a digital tea trading center. Lishui has made every effort to create a number of digital village demonstration models.

Table 4.2. Digital rural development situation by region in Zhejiang Province.

Region	Rural Internet Penetration	Typical Case
Hangzhou	72.6%	Anji White Tea "Cloud" Trading, Fuyang Smart Agriculture Town
Ningbo	69.8%	Fenghua Digital Agriculture Demonstration Zone, Ninghai Digital Fisheries
Wenzhou	65.4%	First City-Level Digital Agriculture Platform in the Country
Huzhou	67.3%	Smart Agriculture Industrial Park, Digital Rural Operation Center
Jiaxing	68.1%	Digital Agricultural Town, Online Sales of Agricultural Products
Shaoxing	71.2%	Zhuji Digital Tea Plantation, Shangyu Smart Fisheries
Jinhua	70.5%	Pan'an Digital Orchard, Lanxi Digital Tea Leaves
Quzhou	64.2%	5G Smart Tea Plantation, Digital Tea Trading Center
Zhoushan	66.7%	National Demonstration Zone for Marine Economic Development
Taizhou	63.5%	"Live Streaming + Agricultural Assistance" Model, Digital Fisheries
Lishui	62.0%	Longquan City Digital Rural Pilot, Jinyun County Demonstration County for Integrated Development of Digital Rural Industries

4.3. Comparative Analysis of Digital Village Construction in Zhejiang Province

4.3.1. Comparative Analysis of Construction Level

On the whole, the level of digital rural construction in Zhejiang Province shows an obvious gradient distribut-

-ion, with coastal areas higher than inland areas and plain areas higher than mountain areas. In terms of Internet penetration rate, Hangzhou, Shaoxing and Jinhua are the highest, while Quzhou, Taizhou and Lishui are relatively low. From the perspective of digital industry development, digital agriculture and rural e-commerce in Hangzhou, Ningbo, Jiaxing and other places are relatively leading, while the development of digital industry in large agricultural counties in mountainous areas is relatively lagging behind. From the level of digital governance, Hangzhou, Ningbo, Wenzhou and other cities are at the forefront of the province. In general, the construction of digital villages across Zhejiang has entered the fast lane as a whole, but the problem of unbalanced development is still prominent. Relatively speaking, Lishui, as an underdeveloped mountainous area, has made positive progress in the construction of digital countryside, but there is still a certain gap compared with the province's average level, and there is a larger gap compared with the previous regions. In the future, it is urgent to further give play to the advantages of latecomers, increase overall coordination, innovate institutions and mechanisms, accelerate the repair of weaknesses, and promote the construction of digital countryside to a new level.

4.3.2. Comparative Analysis of Construction Characteristics

The construction of digital villages in Zhejiang Province presents a development situation with its own characteristics and a hundred flowers blooming. In general, it mainly has the following characteristics: First, it focuses on local characteristic industries, accelerates digital transformation and integration innovation, and creates a number of "digital + characteristic agriculture" model projects, forming a distinctive digital agriculture development model. The second is to actively connect with the digital needs of cities, vigorously develop urban ecological agriculture, tourism agriculture, creative agriculture, and promote the digital integration of urban and rural areas and the reconstruction of rural value. Third, based on regional functional positioning, Ningbo and Zhoushan actively promote the digitalization of Marine economy and build national Marine economic development demonstration zones; Jinhua and Quzhou focus on promoting the development of rural e-commerce and building regional agricultural specialty product brands. Fourth, in order to consolidate and expand the effective connection between the achievements of poverty alleviation and rural revitalization, Lishui and other less developed areas vigorously promote the construction of digital villages, speed up the shortcomings of development, and promote digital technology to empower rural industry, governance, and people's livelihood. In contrast, Lishui digital village construction has the advantage of late development, paying more attention to the spillover effect of digital technology and the multi-functional value of rural areas, and emphasizing the inclusive nature of digital village development. These characteristics are worth summarizing and refining.

4.4. Summary of Experience in the Construction of Digital Countryside in Zhejiang Province

The construction of digital countryside in Zhejiang Province has achieved remarkable results, walked in the forefront of the country and accumulated rich practical experience, which is mainly reflected in the following aspects: First, high-level promotion and strengthening top-level design. The provincial Party Committee and provincial government have placed the construction of digital countryside in an important position and formulated a series of policies and measures, providing a strong policy guarantee for the development of digital countryside. Second, highlight local characteristics and promote urban-rural integration. Based on regional resource endowment and industrial characteristics, promote the development of digital countryside according to

local conditions, and promote digital technology to empower rural industry, ecology, people's livelihood, governance and other fields. Third, we will continue to innovate and improve the working mechanism. Actively explore the digital rural development model that is in line with the actual situation of mountainous rural areas, and establish and improve the working mechanism of party committee leadership, government promotion, and multi-party participation. Fourth, we need to strengthen factor support and improve the environment for development. Increase investment in capital, talent, technology and other factors, accelerate the cultivation of new agricultural business entities, and create a good digital rural development ecology. Fifth, pay attention to demonstration and guidance, and promote typical experience. Summarize and refine innovative practices at the grassroots level in a timely manner, strengthen typical demonstration and guidance, and promote the formation of a number of replicable and scalable digital rural development experience. These valuable experiences provide useful reference for the construction of digital countryside in China.

V. PROMOTES THE DIGITAL COUNTRYSIDE CONSTRUCTION COUNTERMEASURES AND SUGGESTIONS

5.1. Top-Level Design, Strengthen Overall Planning

Further improve the top-level design and system layout of digital villages, scientifically formulate medium - and long-term development plans for digital villages, and clarify goals and tasks, key areas and key measures. We will strengthen the coordination of digital rural construction with plans for rural revitalization, digital economy, and new urbanization, so that multiple plans can be integrated and a blueprint can be drawn to the end. We will coordinate the development of digital villages at the three levels of county, township and village, and promote them by classification and echelon.

5.2. Focus on the Needs of Farmers and Improve the Efficiency of Digital Services

Adhere to the people-centered approach, focus on the needs of farmers in production and life, and promote the full penetration of digital technologies in agricultural production, rural life, and rural governance. We will expand "Internet plus government services" to the grassroots, and build an easy-to-use digital service platform for the convenience of the people. We will promote a new model of education and medical services that combines online and offline services, and promote the extension of high-quality public service resources to rural areas. We will strengthen the development of smart agriculture and provide precise and personalized services for farmers' production and life.

5.3. Strengthen Diversified Investment and Innovate the Construction Model

Increase the overall coordination of financial funds, integrate all types of agriculture-related funds, strengthen cooperation with financial and social capital, and continue to increase investment in digital countryside. We will support all types of market entities to participate in the construction of digital villages, and encourage the use of existing resources through PPP and other models. We will create new development models such as "government + enterprises" and "government + social organizations", and promote cooperation and shared benefits among multiple entities. New technologies and models should be widely applied to improve investment efficiency and reduce construction costs.

5.4. Deepen Reform and Innovation, and Optimize the Institutional Environment

Accelerate the reform of "delegating control services", deepen the integrated reform of "separation of licenses" and "one thing", and stimulate the vitality of the development of digital villages. Establish a collaborative promotion mechanism of "who is in charge, who is responsible, who is sponsored and who is co-organized" to break through inter-departmental data barriers. Establish a fault-tolerant mechanism for the innovation and development of digital villages, and provide institutional guarantee for the grassroots to boldly explore and try first. Improve the laws, regulations and standard system for the development of digital countryside, and strengthen data privacy protection and intellectual property protection.

5.5. Pay Attention to Personnel Training and Lay a Solid Foundation for Development

We will implement the digital rural personnel training plan, and focus on cultivating a group of "three rural" digital personnel who understand agriculture, love rural areas, and love farmers. Encourage institutions of higher learning and vocational colleges to set up digital-rural related majors, and increase the training of related interdisciplinary talents. Establish and improve the flexible introduction and use mechanism of talents, take temporary training, matching support and other ways to guide all kinds of talents to participate in rural digital construction. We will strengthen the cultivation of farmers' information literacy and enhance their awareness and ability to use digital technologies.

VI. CONCLUSION

Taking Songyang County, Lishui City, Zhejiang Province as an example, this paper deeply analyzes the development status, typical experience and existing problems of the county digital village construction, and reveals the basic picture, development characteristics and trends of the digital village construction in Zhejiang Province through the horizontal comparison with other counties and cities in Lishui City and other regions in Zhejiang Province. The research shows that the digital village construction in Songyang County has made positive progress in digital infrastructure, digital industry, digital governance and other aspects, forming a number of unique highlights such as "enclave economy" and "future village", but it still faces challenges such as unbalanced development and institutional obstacles. The construction of digital countryside in Zhejiang Province has entered the fast lane as a whole, showing a development trend of late developing areas to make up for weaknesses and early developing areas to consolidate and improve, but the problem of unbalanced development is still prominent. In the future, we should strengthen the top-level design, focus on the needs of farmers, innovate the construction model, optimize the supply of institutions, consolidate the support of talents, and accelerate the construction of a new pattern of digital rural development with co-construction, co-governance and sharing. This paper has important reference value for promoting the construction of digital countryside in Zhejiang and even the whole country and accelerating the modernization of agriculture and rural areas.

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