Agricultural & Forestry Economics and Management (2025)
Clausius Scientific Press, Canada

DOI: 10.23977/agrfem.2025.080104
ISSN 2616-2202 Vol. 8 Num. 1

Research on the Path of Big Data Technology Enabling Rural Revitalization against the Background of Hainan Free Trade Port

Darun Yang[1,*], Jiong He[1], Zi Sun[1], Daqin Yang[2]

[1]College of Information Engineering, Hainan Vocational University of Science and Technology, Haikou, Hainan, 571126, China
[2]Longjie Town Tianqiao Primary School, Bijie, Guizhou, 520500, China
**Corresponding author*

Keywords: Big data technology; rural revital; data resource integration; financial technology; policy support

Abstract: This paper delves into the paths and strategies for big data technology to empower rural revitalization under the background of the Han Free Trade Port construction. Based on elaborating the current situation and challenges of big data technology empowering rural revitalization, the paper analyzes the new opportunities brought by Hainan Free Trade Port for big data technology, and proposes specific paths such as strengthening infrastructure construction, cultivating big data talents, integrating data resources, and innov application models. Through the cases of the People's Bank of China Hainan Branch's financial technology empowerment for rural revitalization, the development of the Hain Free Trade Port International Data Center, and the innovation of Hainan rubber purchase financial services, the actual application effects of big data technology in rural revitalization are. Finally, the paper puts forward strategic suggestions from aspects such as policy support, capital investment, publicity and promotion, and evaluation mechanisms, aiming to provide theoretical guidance practical references for big data technology to empower rural revitalization under the background of the Hainan Free Trade Port.

1. Introduction

With the announcement of relevant policy plans for the construction of Hainan Free Trade Port, Hainan has officially entered the era of free trade ports. The construction of the free trade port has brought unprecedented development opportunities to Hainan, while also providing a new platform and impetus for rural revitalization. As one of the core modern information technologies, big data technology plays a significant role in promoting rural revitalization. This paper aims to explore how big data technology can empower rural revitalization in the context of Hainan Free Trade Port and propose specific paths and strategies.

2. Current Status and Challenges of Big Data Technology Empowering Rural Revitalization

2.1 Current Status

Big data technology, through data collection, integration, and analysis, provides scientific predictions and decision-making guidance for existing resources, offering strong support for rural revitalization. In Hainan, big data technology has been applied in various fields such as agricultural planting, agricultural product sales, and rural finance.

In Hainan's agricultural planting process, big data technology has accelerated crop breeding, reduced costs, and shortened cycles. It has enabled precision agricultural operations, enhanced the level of intelligence in agricultural production, optimized production processes using image recognition and AI technology, promoted the integration and innovation of the agricultural industry chain, optimized resource allocation, and improved overall efficiency. It also supports the application of new technological scenarios such as blockchain anti-counterfeiting and traceability systems[1] in the agricultural sector, ensuring the quality and safety of agricultural products. These applications have not only improved agricultural production efficiency and output but also promoted the transformation, upgrading, and sustainable development of Hainan's agricultural industry[2], injecting new vitality into agricultural modernization.

In the sales of agricultural products in Hainan Province, big data technology has helped sellers predict market demand to a certain extent, formulate marketing strategies, and increase the popularity and sales of agricultural products. At the same time, big data technology has promoted the development of agricultural product e-commerce platforms, enabling precise recommendations and intelligent searches, enhancing the shopping experience for consumers. In terms of the supply chain, big data technology has optimized resource allocation, improved operational efficiency, and reduced costs. Big data technology is also used in pricing strategy formulation and risk management[3], helping sellers cope with market risks.

In rural finance in Hainan Province, big data technology has driven innovation in financial products and services, such as credit loans and specialized digital inclusive financial products, solving financing difficulties for farmers. Big data technology has optimized the credit approval process, improving approval efficiency and reducing operational costs. Additionally, it has contributed to the construction of rural credit systems, enhancing farmers' credit awareness. Big data technology enables financial institutions to more accurately grasp the needs of rural customers[4], providing personalized services, optimizing service channels and processes, and improving service quality and efficiency.

2.2 Challenges

Despite the enormous potential demonstrated by big data technology in rural revitalization, practical applications still face numerous challenges, including inadequate infrastructure, talent shortages, and fragmented data resources.

Insufficient network coverage and bandwidth limit data transmission speeds, affecting the effective application of big data technology. Rural areas lack unified data platforms and sufficient storage facilities, resulting in widespread data isolation and difficulties in integrating and utilizing data resources. Lagging information system development and institutional barriers to data sharing hinder data flow between departments, further exacerbating the waste of data resources.

The total number of big data professionals in Hainan is insufficient and unevenly distributed, with a particular scarcity in rural areas. This leads to a double bottleneck of knowledge and professional skills when rural regions attempt to leverage big data technology for revitalization. The quality of talent engaged in rural big data applications is relatively low, and their educational attainment is limited, making it difficult for them to understand and apply big data technology to drive rural revitalization.

Severe talent loss, with a large number of young laborers migrating to cities, exacerbates the talent shortage in rural areas. Moreover, the talent training mechanism in rural regions is not yet perfect, with relatively few trainings on big data technology applications, and limited opportunities for grassroots talent to improve.

Data resources are fragmented, with information systems of various departments and organizations operating independently and lacking unified standards and interfaces, leading to ineffective data sharing and interconnection, and creating data islands. Although departments such as agriculture, civil affairs, and health have their own data collection and processing systems, the lack of an integration mechanism makes it difficult to form a unified data system.

3. Paths for Big Data Technology to Empower Rural Revitalization in the Context of Hainan Free Trade Port

3.1 Strengthening Infrastructure Construction

3.1.1 Upgrading Digital Infrastructure

The Hainan Provincial Government should enhance network coverage and accelerate the expansion of rural broadband and mobile communication networks, particularly the extension of 5G and gigabit optical networks to rural areas, ensuring that network access capacity and speed in rural regions reach a high level.

The Hainan Provincial Government should establish a four-tier interconnected digital infrastructure, exploring the construction of a "province-city (county)-township-village" [5] four-tier interconnected digital infrastructure with communication networks as the foundation, data innovation as the driver, and data computing facilities as the core, to promote data interconnectivity and coordinated development within Hainan.

3.1.2 Strengthening the Application of Digital Technology in Agricultural Production

The Hainan Provincial Government should develop modern agricultural projects: leveraging technologies such as the Internet of Things, cloud computing, and big data to create demonstrative modern agricultural projects, and promoting the transformation of agricultural production towards digitization and intelligence.

The Hainan Provincial Government should drive the digital transformation of the entire agricultural industry chain: deepening the application of digital technologies [6] across the entire agricultural industry chain, including production, processing, circulation, sales, and other links, to enhance the overall efficiency and competitiveness of agriculture.

3.1.3 Improving Data Integration and Sharing Mechanisms

The Hainan Provincial Government should establish an agricultural data integration and sharing platform: by establishing and improving the integration and sharing mechanism for agricultural data resources, it should promote the wide application of data resources in various fields of agriculture and rural areas, providing data support for the modernization of agriculture and rural areas.

The Hainan Provincial Government should strengthen data security protection: in the process of data integration and sharing, it should enhance data security protection measures to ensure the safe and stable operation of critical agricultural information infrastructure.

3.1.4 Promoting the Digital Transformation of Rural Public Services

The Hainan Provincial Government should establish a rural digital integrated service platform: relying on existing platforms such as "Haiyi Ban" and "Haizheng Tong", it should build a rural digital integrated service platform to promote the deep integration of finance, social security, transportation, public utility services, and other services, achieving the modernization of rural public services.

3.1.5 Strengthening Talent Cultivation and Introduction

The Hainan Provincial Government should cultivate digital agriculture talents: increasing efforts to nurture practical talents who understand both agriculture and rural areas as well as digital technology, providing talent support for the construction of digital villages.

The Hainan Provincial Government should encourage "new farmers" to return home for entrepreneurship: through policy support, promotional training, and other measures, it should encourage "new farmers" [5] to return home for employment and entrepreneurship, promoting the sustainable development of digital village construction.

3.2 Cultivating Big Data Talent

Talent is the key to empowering rural revitalization with big data technology. Hainan Free Trade Port should intensify its efforts to cultivate and introduce big data talent, enhance the information literacy of the farmer population, and provide talent support for the application of big data technology.

3.2.1 Policy Support and Guidance

The Hainan Provincial Government and relevant departments have issued a series of policies, such as the "Several Policy Measures for Comprehensive Introduction[7], Cultivation, and Effective Utilization of Talent in Hainan Free Trade Port," clearly outlining the requirements for the cultivation, introduction, and use of talent in the digital economy field, including big data, providing policy support for big data talent cultivation.

The government has established special funds to support the cultivation, introduction, and research projects of big data talent, providing financial support for their development.

3.2.2 Education and Training System Development

Universities in Hainan actively adjust their professional offerings, adding big data-related majors, strengthening big data discipline construction, and cultivating high-quality talent with big data analysis and application capabilities.

Collaborating between the government and enterprises, big data vocational skills training is conducted to enhance the big data skills of incumbent personnel. At the same time, employees are encouraged to participate in continuing education to improve the overall quality of the big data talent pool.

3.2.3 Practical and Innovative Platform Construction

The Hainan Provincial Government should establish a big data platform: The provincial government, in collaboration with enterprises, should build a big data platform to provide practical opportunities for big data talents. By participating in the construction and operation of the big data platform, talents can accumulate practical experience and enhance their application abilities in big data technology.

The Hainan Provincial Government should promote industry-academia-research cooperation:

Encouraging cooperation among universities, research institutions, and enterprises in Hainan Province to jointly conduct research and application innovation in big data technology.

3.2.4 Talent Introduction and Incentives

Hainan Province has implemented multiple talent introduction programs, such as the Leading Talent and Team Introduction Project [7], to attract high-level big data talent from home and abroad to work and start businesses in Hainan.

The government and enterprises provide generous salary packages, research funding, and career development opportunities as incentives for big data talent, stimulating their innovation and creativity.

3.3 Integrating Data Resources

Data resources are the core of empowering rural revitalization with big data technology. Hainan Free Trade Port should strengthen the integration and management of rural data resources, improving data quality and value.

3.3.1 Establish Data Sharing Platforms

The Hainan Provincial Government should improve the functionality of the data sharing platform, providing convenient data query and display, in-depth data analysis and mining, as well as rigorous data security and privacy protection, to ensure the compliant use of data and the protection of farmers' privacy.

The Hainan Provincial Government should promote the application of the data sharing platform in Hainan's rural revitalization, such as guiding agricultural production, facilitating the sale of agricultural products, and optimizing rural governance, making data an important force driving rural revitalization.

3.3.2 Improving the Data Collection System

(1) Enhancing Infrastructure Construction

Enhance network coverage: we need to ensure the improvement of network infrastructure in rural areas of Hainan, including broadband and mobile communication networks, to provide stable and efficient network support for data collection.

(2) Establishing Unified Data Collection Standards

Relevant departments in Hainan Province should formulate data collection specifications: Clarify the requirements for the content, format, frequency, and other aspects of data collection to ensure the accuracy and consistency of data collection.

Relevant departments in Hainan Province should promote standardized collection methods: Through training, demonstrations, and other means, they should promote standardized data collection methods to improve the efficiency and quality of data collection.

(3) Strengthening Data Collection and Update Mechanisms

Establish a data collection responsibility system: Relevant departments in Hainan Province should clarify the responsible entities and individuals for data collection to ensure orderly progress in data collection work.

Regularly update data: Relevant departments in Hainan Province should establish a data update mechanism to ensure the timeliness and accuracy of data. The collected data should be regularly reviewed, corrected, and updated to maintain its most current state.

(4) Promoting Data Sharing and Collaboration

Establish a data sharing platform: Relevant departments in Hainan Province should build a unified

data sharing platform to enable data sharing and exchange among various departments and systems.

Enhance data collaborative processing: Relevant departments in Hainan Province should utilize data collaborative processing technologies to achieve data integration, analysis, and mining, providing more comprehensive and accurate data support for Hainan's rural revitalization.

3.3.3 Strengthening Data Security Management

(1) Establishing and Improving Data Security Management Systems

Formulate data security policies: Relevant departments in Hainan Province should clarify the ownership, usage rights, and management rights of data, and formulate data security protection policies to ensure the legal and compliant use of data.

(2) Enhancing Data Security Technical Protection

Adopt encryption technology: Relevant technical departments in Hainan Province should encrypt sensitive data to ensure its security during transmission and storage.

Deploy firewalls and intrusion detection systems: Relevant technical departments in Hainan Province should deploy firewalls and intrusion detection systems at key nodes for data collection, storage, and transmission to promptly detect and prevent data security risks.

Regularly conduct security vulnerability scanning and repairs: Relevant technical departments in Hainan Province should regularly perform security vulnerability scanning on the system to promptly identify and fix potential security vulnerabilities.

(3) Strengthening Data Access Control and Identity Authentication

Implement strict access control: Relevant technical departments in Hainan Province should enforce rigorous permission controls on data access based on the sensitivity of the data, ensuring that only authorized users can access the relevant data.

Adopt multi-factor authentication: Relevant technical departments in Hainan Province should utilize multiple authentication methods such as passwords and biometric features to enhance the accuracy and security of identity verification.

(4) Enhancing Data Backup and Recovery Capabilities

Establish a data backup mechanism: Relevant technical departments in Hainan Province should regularly back up important data to ensure timely recovery in case of data loss or damage.

Improve data recovery capabilities: Relevant technical departments in Hainan Province should adopt efficient data recovery technologies to ensure rapid data restoration in the event of data loss or damage, minimizing losses.

3.4 Innovative Application Models

3.4.1 Smart Agriculture

(1) Data-Driven Decision Making: In smart agriculture, the application of big data makes agricultural production more precise and efficient. By collecting and analyzing data on soil, climate, and crop growth, farmers can more scientifically formulate planting plans and management strategies, thereby increasing crop yields and quality.

(2) Application of Intelligent Equipment: Big data technology also promotes the application of intelligent equipment in agriculture. Through IoT, sensors, and other devices, the growth environment and status of crops can be monitored in real-time, and precise fertilization, irrigation, and other operations can be performed through intelligent equipment, thereby improving agricultural production efficiency.

(3) Industry Chain Optimization: The application of big data also helps optimize the agricultural industry chain. By collecting and analyzing data on agricultural product sales and logistics, market

demand and price trends can be more accurately predicted, guiding farmers to reasonably adjust planting structures and sales strategies, thereby improving the market competitiveness of agricultural products.

3.4.2 Rural E-commerce

(1) E-commerce Platform Construction: In rural e-commerce, the application of big data promotes the construction and optimization of e-commerce platforms. By collecting and analyzing consumer shopping habits and preferences, e-commerce platforms can more accurately recommend agricultural products, thereby increasing sales and customer satisfaction.

(2) Branding of Agricultural Products: The application of big data also contributes to the branding of agricultural products. By collecting and analyzing data on product quality, taste, nutritional content, and other aspects, distinctive agricultural product brands can be created, thereby increasing the added value and market competitiveness of agricultural products.

(3) Logistics Optimization: The application of big data also promotes the optimization of rural e-commerce logistics. By collecting and analyzing logistics data, more accurate predictions can be made regarding transportation time and cost, thereby optimizing logistics routes and delivery strategies, improving logistics efficiency and service quality.

3.4.3 Rural Finance

(1) Credit Assessment: In rural finance, the application of big data promotes the improvement of credit assessment systems. By collecting and analyzing farmers' credit records, operating conditions, and other data, their credit status can be more accurately assessed, providing loan decision support for financial institutions.

(2) Risk Management: The application of big data also contributes to risk management in rural finance. By collecting and analyzing loan data, repayment data, etc., potential risk points can be promptly identified, and corresponding measures can be taken for prevention and resolution.

(3) Financial Service Innovation: The application of big data also promotes innovation in rural financial services. By collecting and analyzing farmers' financial needs, consumption habits, and other data, more financial products and services tailored to farmers' needs can be developed, improving satisfaction and convenience in financial services.

4. Specific Cases of Big Data Technology Empowering Rural Revitalization in the Context of Hainan Free Trade Port

4.1 People's Bank of China Hainan Branch Empowering Rural Revitalization with Financial Technology

The People's Bank of China Hainan Branch has achieved remarkable results in empowering rural revitalization with financial technology. The bank, in conjunction with seven provincial departments including the Hainan Provincial Department of Agriculture and Rural Affairs, established a special working group for the Financial Technology Empowerment Rural Revitalization Demonstration Project and formulated the "Working Plan for the Hainan Financial Technology Empowerment Rural Revitalization Demonstration Project" [8], implementing a two-year demonstration project. Through the application of big data technology, the bank achieved innovation in the "Comprehensive Service Big Data Platform + Comprehensive Insurance Underwriting" model for rural industries, effectively establishing a comprehensive risk guarantee mechanism for rural industries.

4.2 Development of the Hainan Free Trade Port International Data Center

Hainan Free Trade Port issued the "Regulations on the Development of International Data Centers in Hainan Free Trade Port" [9], supporting domestic and foreign enterprises in conducting international data center business in the free trade port. The regulations clarify the concepts, application scenarios, specific paths for cross-border data flows, and requirements for network and data security of international data center business. By building international data centers, Hainan Free Trade Port provides a more convenient and efficient environment for the application of big data technology. Meanwhile, the regulations also encourage and support international data center business operators to voluntarily choose credible and secure domestic and foreign cloud services, computing chips, artificial intelligence large models, etc., to provide international data services, providing richer technical options for rural big data applications.

4.3 Innovative Financial Services for Hainan Rubber Purchases

In the context of Hainan Free Trade Port, the Agricultural Bank of China Hainan Branch innovatively promoted the "Blockchain-Based Hainan Rubber Purchase Financial Service" [10]. The project comprehensively utilizes blockchain, IoT, big data, and other technologies, creating a fully automated service environment from rubber weighing, quoting, trading, to settlement and price difference compensation. Through the application of big data technology, the project achieves the unity of "physical flow + information flow + capital flow," addressing pain points for all parties involved in sales, settlement, insurance compensation, and other links. The project benefits more than 90,000 rubber farmers in Hainan, significantly improving the efficiency and fairness of rubber purchases.

5. Section Four: Strategic Suggestions for Big Data Technology to Empower Rural Revitalization in the Context of Hainan Free Trade Port

5.1 Strengthening Policy Support

The Hainan Provincial Government should introduce a series of policies to support the application of big data technology in rural revitalization, clarifying the directions and priorities for the application of big data technology in agricultural production, agricultural product sales, rural management, and other aspects. Policies should encourage enterprises, universities, research institutions, and other stakeholders to actively participate in the research and application of big data technology, forming a joint force to promote rural revitalization.

The government should increase investment in the construction of big data infrastructure, including rural broadband networks and data centers, to provide a solid hardware foundation for the application of big data technology. At the same time, it should promote the integration and sharing of data resources, break down information silos, and improve the utilization efficiency of data resources.

The government should establish incentive mechanisms to reward and support enterprises and individuals that have achieved significant results in the application of big data technology, stimulating enthusiasm and creativity from all sectors of society. In addition, the government should strengthen the promotion and training of big data technology to enhance farmers' understanding and application capabilities of big data technology.

The government should formulate comprehensive data security and privacy protection policies [5] to safeguard the legitimate rights and interests of farmers and enterprises, providing legal safeguards for the widespread application of big data technology in rural revitalization.

5.2 Increasing Capital Investment

The government should set up special funds to support the application and promotion of big data technology in rural areas. These funds can be used for the construction and maintenance of big data infrastructure, such as rural networks and data centers, to ensure smooth data transmission and processing.

The government can guide social capital investment in big data technology projects through policies. For example, by providing preferential policies such as tax reductions and interest subsidies on loans, more enterprises can be attracted to participate in the application of big data technology in rural areas.

Innovation funds should be established to support the research and development of big data technology in rural areas. This will not only drive continuous technological progress but also provide more diversified application solutions for rural industries.

Transparency and efficiency in the use of funds should be ensured. A strict supervision mechanism should be established to ensure that funds are truly used in various aspects of empowering rural revitalization with big data technology, avoiding waste and misappropriation.

5.3 Strengthening Promotion and Advocacy

The government should organize a series of promotional activities, such as exhibitions on the application of big data technology and exhibitions of rural revitalization achievements, to allow farmers to intuitively understand the application results of big data technology in agricultural production, sales, management, and other aspects, stimulating their enthusiasm for learning and application.

Media resources such as television, radio, and the internet should be utilized to widely promote successful cases and advanced experiences of big data technology in rural revitalization, forming a demonstration effect and guiding more farmers and rural enterprises to actively apply big data technology.

The government should encourage universities, research institutions, and enterprises to conduct big data technology training to improve farmers' and rural enterprises' awareness and application capabilities of big data technology. At the same time, expert teams should be organized to go deep into rural areas to provide face-to-face guidance and consulting services to solve farmers' confusion and problems in practical applications.

The government should establish a feedback mechanism to timely collect feedback from farmers and rural enterprises on the application effects of big data technology, summarize experiences and lessons learned, and continuously improve promotion strategies to ensure that big data technology can truly empower rural revitalization.

5.4 Improving Evaluation Mechanisms

A regular evaluation system for the application of big data technology should be established to comprehensively evaluate project progress, application effects, and farmer satisfaction, ensuring that big data technology can truly benefit farmers and promote rural economic development.

The evaluation mechanism should focus on the authenticity and accuracy of data, adopting scientific methods and means for data collection and analysis to avoid data falsification and misleading, providing a reliable basis for policy formulation and project adjustment.

Evaluation results should be timely fed back and disclosed, allowing farmers and rural enterprises to understand the actual situation and effects of big data technology applications, enhancing their trust and participation in big data technology.

Based on evaluation results, the government should timely adjust policy directions and project plans, optimize resource allocation, and improve the efficiency of fund use to ensure that big data technology empowers rural revitalization with practical results.

6. Conclusion

The construction of Hainan Free Trade Port provides new opportunities and challenges for big data technology to empower rural revitalization. By strengthening infrastructure construction, cultivating big data talents, integrating data resources, and innovating application models, Hainan Free Trade Port can fully leverage the important role of big data technology in rural revitalization. At the same time, through strategic suggestions such as strengthening policy support, increasing capital investment, strengthening promotion and advocacy, and improving evaluation mechanisms, the development of big data technology empowering rural revitalization can be further promoted. In the future, with the continuous development and application of big data technology, Hainan Free Trade Port will achieve more significant results in rural revitalization endeavors.

Acknowledgments

This paper was supported by the Hainan University of Science and Technology School-level Scientific Research Funding Project + Path Research on Big Data Technology Empowering Rural Revitalization in the Context of Hainan Free Trade Port: HKKY2024-47.

References

[1] Zeng Jianzhong, Li Yinzhen, Liu Guidong. Research on the Mechanism and Spatial Effects of Digital Inclusive Finance Empowering the Prosperity of Rural Industries: An Empirical Test Based on County-Level Spatial Dynamic Panel Data. International Finance Research, 2023(04):39-49. DOI:10.16475/j.cnki.1006-1029.2023.04.003.

[2] The 2021 Annual Conference of China Society of Tropical Crops. "Digital Tropical Crops and Rural Industrial Revitalization Forum" was held in Chengmai, Hainan. World Tropical Agricultural Information, 2022(01):87.

[3] Li Hua, Yin Chenghong. Research on the Supply and Demand Status of Cross-border Cold Chain Logistics Talents in Hainan Free Trade Port. Logistics Engineering and Management, 2021, 43(12):149-152.

[4] Li Zhiling. Countermeasures and Thoughts on Promoting Hainan Free Trade Port Construction through Rural Talent Revitalization. Hainan Today, 2024(06):59-60.

[5] Li Yinzhen, Zeng Jianzhong. (2024). Empowering the High-quality Development of Hainan's Rural Industries with Digital Inclusive Finance. Phase results of the 2023 Hainan Provincial Social Science Planning Project (HNSK (YB)23-28) and the 2024 Hainan Provincial Natural Science Foundation Grant (624MS076).

[6] LiYuping, Wang Danyang, Deng Chunmei, et al. Practices and Explorations of Digital Technology in Promoting the Development of Hainan's Tropical Characteristic and High-efficiency Agriculture. Tropical Agricultural Sciences, 2024, 44(4):96-102.

[7] Hainan Provincial Party Committee Talent Development Bureau. (2024). Policies and Measures for Comprehensively Introducing, Cultivating, and Utilizing Talents in Hainan Free Trade Port. https://www.hainan.gov.cn/hainan/yhyshjrczc/202404.

[8] Li Li, Wang Hongjie, Xia Sihang. People's Bank of China Hainan Branch: Writing a New Chapter in High-quality Financial Development. Financial Times, 2024-11-26(012). DOI:10.28460/n.cnki.njrsb.2024.005530.

[9] Hainan Free Trade Port International Data Center Development Regulations. Hainan Daily, 2024-11-30(A08). DOI:10.28356/n.cnki.nhlrb.2024.007432.

[10] Chen Bin. Hainan Provides Rewards and Subsidies for Tropical Characteristic and High-efficiency Agricultural Projects. Hainan Daily, 2023-06-13(A06). DOI:10.28356/n.cnki.nhlrb.2023.003754.