

Integration of Agriculture, Rural Areas, and Farmers with Historical Culture: A Study on Developing New Quality Productive Forces in the Dalian Region

Shiji Liu, Ping Yan*

City Institute, Dalian University of Technology, Dalian, 116102, China

*Corresponding author: lunwentxzzh@163.com

Abstract: This paper aims to explore the interrelationships among new quality productive forces, the issues concerning agriculture, rural areas and farmers, and historical culture within the regional development of Dalian. By analyzing Dalian's regional characteristics, the current state of new quality productive forces development, the opportunities and challenges faced by the agricultural sector and rural communities, as well as its rich historical and cultural resources, this paper elaborates on how to integrate these elements to promote comprehensive development in Dalian, thereby providing theoretical foundations and practical references for regional development strategies.

Keywords: Agriculture, Rural Areas and Farmers; Historical Culture; Development; New Quality Productive Forces

Introduction

As a significant coastal city in Northeast China, Dalian occupies a unique position in regional development. The introduction of the concept of new quality productive forces has provided novel perspectives for Dalian's growth, while the issues concerning agriculture, rural areas and farmers consistently form the foundation for regional stability and development. Moreover, its rich historical and cultural heritage serves as a distinctive spiritual emblem for Dalian. How to organically integrate these aspects constitutes a crucial issue currently facing the regional development of Dalian.

1. Development of New Quality Productive Forces in Dalian

Dalian is situated at the southern tip of the Liaodong Peninsula and possesses excellent port resources, making it one of the significant shipping centers in Northeast Asia. It maintains extensive economic and trade exchanges with numerous domestic and international cities, serving as a crucial gateway for the opening-up of Northeast China. Dalian's industrial structure is primarily composed of manufacturing, services, and agriculture. Within manufacturing, shipbuilding and equipment manufacturing hold certain advantages; in the services sector, finance and tourism are developing rapidly; in agriculture, fisheries and fruit cultivation also account for a notable share nationally.

New Quality Productive Forces refer to an advanced form of productive forces where innovation plays a dominant role. This concept breaks away from traditional economic growth patterns and conventional development paths of productive forces. It is characterized by high technology, high efficiency, and high quality, aligning with the new development philosophy. Dalian boasts a solid foundation in the software and information technology services sector, with a concentration of numerous high-tech enterprises. For example, companies within the Dalian Software Park continuously innovate in areas such as software development and artificial intelligence applications. The Dalian municipal government strongly supports innovation and entrepreneurship, having implemented a series of preferential policies. Furthermore, collaboration between universities, research institutions, and enterprises is becoming increasingly close, driving the research, development, and commercialization of new technologies, such as innovative achievements in marine engineering.

2. Issues Concerning Agriculture, Rural Areas and Farmers in Dalian

2.1 Current State of Agricultural Development

Dalian boasts a well-developed fruit cultivation industry, where produce such as apples and cherries are known for their high quality. However, the industry still faces certain shortcomings in areas such as the promotion of modern planting techniques and the development of agricultural product brands.

According to data released by the Department of Agriculture and Rural Affairs of Liaoning Province in November 2023, the added value of Dalian's primary industry in the first three quarters reached 39.65 billion yuan, marking a year-on-year increase of 4.6%, which is higher than the national and provincial averages. The city's total output value of agriculture, forestry, animal husbandry, and fishery stood at 83.0 billion yuan, reflecting a 4.3% year-on-year growth. Within this total, the planting industry achieved an output value of 23.5 billion yuan, up by 4.2% year-on-year. The sown area for vegetables increased by 2.2%, with the output of vegetables and edible mushrooms reaching 1.345 million tons, a rise of 4.1%. The fruit output totaled 1.49 million tons, showing a growth of 5%.

Dalian has formulated the "Implementation Plan for Dalian to Implement the Construction of a Major Food Industry Province (2023-2025)" to advance the development of four major industrial chains: livestock and poultry, aquatic products, grain and oil, and fruits and vegetables. The city has newly cultivated 25 enterprises recognized as municipal-level or higher leading enterprises, bringing the total number of such agricultural leading enterprises to 203. The market competitiveness of agricultural products continues to strengthen, major agricultural projects are progressing steadily, and the per capita disposable income of rural residents maintains stable growth. In the first three quarters of 2023, the per capita disposable income of rural residents in Dalian reached 20,717 yuan, ranking first among the 14 cities in the province and representing a year-on-year increase of 6.9%.

The whole industry chain of crop cultivation has developed soundly, and the capacity for agricultural technological innovation has been enhanced. New achievements have been made in green agricultural development, with the qualified rate for agricultural product quality and safety consistently maintained above 98%. The integrated development of rural industries continues to deepen, with the establishment of the National Modern Agricultural Industrial Park in Wafangdian City, the National Modern Agricultural Industrial Park in Changhai County, and the Provincial Modern Agricultural Industrial Park in Jinpu New District, among others. The city now boasts six provincial-level or higher demonstration parks. The quality and economic returns of agricultural product brands continue to strengthen. Dalian Big Cherry was selected for the first batch of the National Agricultural Brand Quality Cultivation Program, ranking 34th on the list of the top 100 regional brands for geographical indication agricultural products with a brand value of 9.957 billion yuan. Meanwhile, "Dalian Nectarine" ranked 92nd on the same list with a brand value of 4.009 billion yuan.

The development of crop cultivation in Dalian has achieved remarkable results in multiple areas, including agricultural economic growth, agricultural product processing, market competitiveness, technological innovation, green development, rural industrial integration, and brand building. For future development, Dalian will continue to advance the high-quality growth of its crop cultivation sector, aiming to increase the output value across the entire industry chain and achieve the modernization of agriculture.

2.2 Rural Development

Dalian's rural areas have achieved certain results in infrastructure construction, with village road connectivity, widespread use of solar streetlights, and basic coverage of broadband and express delivery services. In 2024, the average operating revenue of village collectives reached 578,000 yuan, and all villages with weak collective economies have been eliminated. However, disparities persist compared to urban areas. Rural education and healthcare resources remain relatively scarce, and there is insufficient allocation of high-quality teachers and medical professionals to rural communities. These factors constrain the improvement of the rural population's quality and the further development of the rural economy.

By promoting industrial integration and implementing the seven major rural construction projects to address weaknesses, the cherry industry in Wafangdian and the sea cucumber industry in Pulandian have achieved scaled development through resource integration. Areas such as Jinpu New District and Zhuanghe are advancing the integration of facility agriculture with e-commerce. Concurrently, efforts

are underway to raise the rural tap water coverage rate toward 88%, gradually extend 5G networks, and continuously promote the standardized development of township health centers and village clinics. The aim is to narrow the urban-rural development gap through improved resource allocation to grassroots levels and targeted project support.

2.3 Farmers' Income and Livelihoods

Farmers' income primarily relies on agricultural production and migrant work, while gradually diversifying through pathways such as specialized industries and policy support. However, there remains room for improvement in the growth rate of income, and the rural consumption market has not yet been fully tapped. In 2024, the per capita disposable income of rural residents in Dalian reached 27,932 yuan, representing a year-on-year increase of 5.7%. The urban-rural income ratio has narrowed, and the income structure is transitioning from single dependence to diversified support. In terms of agricultural production, specialized industrial clusters, such as those for Big Cherry, sea cucumber, and broiler chickens, contribute 95% of the total agricultural output value. Through the "enterprise + cooperative + family farm" model, farmers are enabled to share in the value-added benefits of the industrial chain. For instance, national-level marine ranches alone have driven income growth for over ten thousand farming households. Migrant work remains an important supplement, but the capacity for local employment absorption continues to strengthen. Industries such as agricultural product processing and rural tourism create a significant number of local job opportunities annually.

Policy dividends have provided a solid foundation for income growth. Dalian has implemented a range of pro-agriculture and farmer-benefiting policies, including differentiated subsidies for corn and soybeans, farmland fertility protection, and subsidies for agricultural machinery purchases. In 2024, fiscal expenditures at all levels for agriculture, forestry, and water affairs reached 4.5 billion yuan, an increase of 13.5%, effectively reducing production and operational costs. However, income growth still faces challenges such as the relatively low added value of agricultural products and the instability of off-farm employment income.

In the realm of consumption, rural areas show a clear trend of consumption upgrading. The proportion of expenditure on food, tobacco, and alcohol has declined, while spending on clothing, daily necessities, and services has steadily increased. Nevertheless, influenced by factors such as income expectations and the underdevelopment of rural commercial infrastructure, consumption potential in areas like education, culture, entertainment, and healthcare has not been fully realized. In 2024, the consumer price index for rural residents was on par with that of urban residents, both registering a decrease of 0.2%.

Dalian is actively broadening income-generating channels through measures such as cultivating the "one village, one internet influencer" e-commerce model, advancing the construction of ten key rural tourism villages, and establishing new agricultural industrialization consortiums. With the extension of 5G networks, the popularization of rural e-commerce, and the strengthening of specialized brands, the momentum for farmers' income growth will continue to increase. The rural consumption market is expected to realize its potential through quality upgrading and optimized supply.

3. Dalian's Historical and Cultural Resources

3.1 Historical Sites

Dalian boasts a long and rich history, with traces of human activity in the region dating back over 6,000 years. In ancient times, Dalian served as a vital maritime link between Northeast China and the Central Plains. During the era of imperial administration, the area was under the jurisdiction of the Liaodong Commandery and had already developed relatively advanced fishing and agricultural industries. Over time, Dalian witnessed the rise and fall of multiple dynasties. Due to its strategically important location, it became a key site for military defense during the Ming and Qing dynasties. The Ming dynasty constructed numerous defensive installations, such as beacon towers, in the Dalian area to guard against seaborne invasions.

In modern times, Dalian's historical trajectory underwent significant changes. In the late 19th century, Dalian was forcibly leased by Tsarist Russia, which undertook large-scale urban construction in the city. Streets and buildings were planned in a European style, laying the foundation for the architectural character of parts of Dalian's urban area. For example, some European-style buildings

constructed during that period still stand in Dalian's streets and alleys today, serving as unique historical imprints of the city.

Following the Russo-Japanese War, Dalian came under Japanese occupation and experienced over 40 years of colonial rule. During this period, Dalian's economy was integrated into Japan's colonial system, while Japanese culture also exerted a certain impact and influence on the local culture of Dalian. However, the people of Dalian never ceased their resistance under colonial rule, with various anti-Japanese struggles emerging continuously, demonstrating their tenacious national spirit.

It was not until 1945 that Dalian was liberated from Japanese colonial rule. Subsequently, it gradually developed into an important industrial base and port city for New China, playing a significant role in the nation's construction.

3.2 Folk Culture

Dalian's historical and cultural tapestry is rich and vibrant, possessing distinctive regional characteristics.

Architectural culture constitutes a significant part of its historical heritage. For instance, the building complexes around Zhongshan Square blend various architectural styles, including European classicism and eclecticism. These structures are not only artistic achievements but also reflect the complex history of Dalian during the period of colonial rule by foreign powers in modern times. Each building has a story behind it; for example, some were once the premises of foreign banks or commercial institutions, bearing witness to the economic exchanges and cultural interactions of that era.

The folk culture possesses its own unique charm. Regarding traditional festivals, Dalian has its own characteristic ways of celebration. During the Spring Festival, for example, alongside customary practices like pasting Spring Festival couplets and setting off firecrackers, Dalian also boasts a distinctive paper-cutting art form. Dalian paper-cutting features a style that is both bold and delicate, with patterns often themed around marine life and pastoral scenes, reflecting the local people's love for life and reverence for nature.

Maritime culture is deeply ingrained. As a coastal city, its fishing culture has been passed down for generations. From ancient fishermen's sacrificial rituals to the unique craftsmanship of fishing gear production, these elements are imbued with rich maritime cultural significance. Fishermen traditionally worship the Sea Goddess, and the annual Sea Goddess Temple Fair is an important folk event in Dalian, where people pray for favorable weather and bountiful catches. This maritime culture is also evident in the culinary traditions; Dalian's seafood cuisine is world-renowned. Delicacies such as sea cucumber and abalone not only have unique cooking methods but are also accompanied by cultural stories related to marine fishing and aquaculture.

Industrial culture should not be overlooked. Following the establishment of New China, Dalian became a vital industrial base, with thriving industries like shipbuilding and chemicals. The craftsmanship spirit passed down in old factories, along with the hardworking entrepreneurial stories of the working class, all form part of Dalian's historical and cultural narrative. Some of these industrial relics have now been repurposed into industrial museums or creative parks, continuing to tell the story of Dalian's industrial development journey.

4. Strategies for Integrated Development

To leverage new quality productive forces to propel the development of agriculture, rural areas, and farmers, it is essential to utilize high and new technologies to transform traditional agriculture, relying on the construction of Dalian's smart agriculture demonstration zones. Concurrently, we must harness internet platforms to develop rural e-commerce, broaden sales channels for agricultural products, and increase farmers' income. By applying technologies such as the Internet of Things and big data, we can achieve intelligent management of agricultural production, enabling precise regulation of planting and breeding processes to effectively enhance the output and quality of agricultural products. Furthermore, developing new rural industries and business formats, and leveraging e-commerce platforms and the livestreaming economy to expand sales channels for agricultural products, will promote the branded success of specialty products like "Dalian Seafood" and "Wafangdian Big Cherry," tangibly increasing farmers' operational and property income.

To integrate historical and cultural resources into regional development, a deep exploration of Dalian's diverse historical heritage is required to build a cultural tourism industry. Developing characteristic cultural tourism routes centered on modern historical sites in Lushun and folk culture in Jinzhou, linking natural landscapes with cultural nodes, will enhance the cultural depth and attractiveness of Dalian's tourism. Simultaneously, developing the cultural and creative industries by incorporating elements such as maritime culture and colonial historical relics into product designs can yield distinctive works that combine practicality and commemorative value. This allows local culture to reach the public in dynamic and engaging forms.

To promote coordinated regional development, it is necessary to strengthen the linkage mechanism between Dalian's central urban areas and its county-level rural regions, facilitating the rational flow and optimal allocation of resources. Urban areas should leverage their advantages in industrial and talent agglomeration to provide rural areas with technical guidance, financial support, and professional talent. Rural areas, in turn, should capitalize on their ecological and agricultural foundations to supply urban areas with green, high-quality agricultural products and provide ecological wellness services. This will foster a positive pattern of urban-rural complementarity and synergistic development.

5. Conclusion

5.1 Significant Overall Development Achievements

Dalian demonstrates positive development momentum across multiple sectors, including agriculture, industry, and services. In the agricultural sector, both crop cultivation and fisheries have achieved remarkable results. Crop cultivation has seen growth in the output of various products, progressive advancement of the whole industry chain, and enhanced capacity for agricultural technological innovation. The fisheries sector has implemented a comprehensive whole-industry-chain approach, concurrently pursuing technological innovation and ecological conservation.

In the industrial field, Dalian possesses a robust manufacturing foundation. Traditional industries such as shipbuilding and equipment manufacturing are continuously undergoing upgrading and transformation, thereby increasing the technological content and added value of their products.

The service sector is thriving, particularly tourism and financial services. With its beautiful coastal scenery and pleasant climate, Dalian attracts a large number of domestic and international tourists. Tourism infrastructure is continuously improving, and tourism products are becoming increasingly diverse. Financial services also hold a significant position in Northeast China, providing strong support for local enterprises in financing, investment, and risk management.

Transportation infrastructure is becoming increasingly developed, with port handling capacity continuously expanding. As a major port in northern China, Dalian Port has seen steady growth in cargo throughput and an expanding network of shipping routes, establishing close trade links with numerous domestic and international ports. Simultaneously, internal urban road and rail transportation have become more convenient. The construction of rail transit has facilitated residents' travel and improved the city's overall operational efficiency.

Urban public service facilities, such as education and healthcare, are continuously improving. The city boasts rich educational resources, including several universities and high-quality primary and secondary schools, cultivating a large number of professionals who provide intellectual support for urban development. The standard of healthcare is constantly rising, with medical equipment in major hospitals being upgraded and medical technologies being continuously introduced and innovated, enabling them to meet the healthcare needs of local residents and patients from surrounding areas.

5.2 Challenges and Response Strategies

With urban development, Dalian faces challenges in environmental and resource conservation. In the development of its fisheries, issues exist concerning the protection of fishery resources and water pollution. In the process of industrial development, pressure to conserve energy and reduce emissions is also present. To address these issues, Dalian needs to further strengthen environmental supervision, intensify efforts to regulate polluting enterprises, and promote the adoption of green production technologies and clean energy. For the fisheries sector, it is essential to strictly implement fishing moratorium systems, enhance marine ecological monitoring, and promote eco-friendly aquaculture models.

Although Dalian holds certain advantages in traditional industries, industrial upgrading is imperative against the backdrop of increasingly fierce global economic competition. Traditional manufacturing needs to further transition towards intelligent and high-end production to enhance the core competitiveness of its industries. Agriculture must continue to strengthen the construction of the entire industry chain and increase the added value of agricultural products. The tourism sector needs to deeply explore cultural elements to create distinctive tourism products that attract more discerning tourists. This requires Dalian to increase investment in technological innovation, cultivate and attract high-end talent, and encourage enterprises to pursue technological and managerial innovation.

Within Northeast China and across the country, Dalian faces competitive pressure from other cities. To maintain its advantageous position, Dalian needs to fully leverage its marine resources, industrial foundation, and talent strengths while strengthening regional cooperation. For instance, under the strategic background of revitalizing Northeast China, Dalian can engage in coordinated industrial development with neighboring cities to form a complementary industrial landscape, jointly promoting regional economic growth.

Dalian's current development achievements are remarkable, yet it also confronts a series of challenges. By proactively addressing these challenges, Dalian has the potential to achieve sustainable economic, social, and environmental development, continuing to play a significant role in urban development within Northeast China and across the nation. The regional development of Dalian requires the organic integration of new quality productive forces, the issues concerning agriculture, rural areas and farmers, and historical culture. By developing new quality productive forces to promote the modern transformation of the agricultural sector and rural communities, and by infusing regional development with the essence of historical culture, Dalian can enhance its developmental depth. This approach will not only help address the current economic, social, and environmental challenges Dalian faces but will also propel the city to stand out in regional competition, achieving the goal of sustainable development. In future development, the government, enterprises, and all sectors of society should collaborate, continuously exploring and innovating to inject new vitality into Dalian's prosperity and growth.

Fund Projects

College Students' Innovation and Entrepreneurship Training Program: "Integration of Agriculture, Rural Areas, and Farmers with Historical Culture: A Study on Developing New Quality Productive Forces in the Dalian Region" (Project Number: D202412090006019710)

References

- [1] Li Wei, Sun Bo, Wang Zhibo. *New Quality Productive Forces Empowering High-Quality Development of Ice and Snow Sports Tourism: Era Value, Practical Dilemmas, and Implementation Pathways*. *Journal of Harbin Institute of Physical Education*, 2024, 42(3): 37-43.
- [2] Yang Yaling. *New Quality Productive Forces Empowering High-Quality Development*. *China Discipline Inspection and Supervision News*, 2024, (8): 1-4.
- [3] Wang Baishi, Wang Zonghua. *Luobei: An Eye-Catching and Encouraging Report Card of High-Speed, High-Quality Development*. *Heilongjiang Daily*, 2022, (6): 1-4.
- [4] Gao Junmin. *Pathways and Strategies for Rural Modernization under the "Belt and Road" Initiative*. *Agricultural Development and Equipment*, 2024, (9): 49-51.
- [5] Zhang Dan. *Focusing on Cutting-Edge Technologies to Actively Develop New Quality Productive Forces*. *New Economy Weekly*, 2024, (2-3): 24-30.