

Developing agricultural economy in the northwest communities of Ho Chi Minh city in the context of urbanization

Tong Thi Hanh

¹Saigon University, Vietnam

Email: tthanh@sgu.edu.vn

Received: 16/10/2025

Revised: 19/12/2025

Accepted: 1/02/2026

Published: 24/03/2026

ABSTRACT

During the rapid urbanization of Ho Chi Minh City (HCMC), suburban communes are facing significant pressure regarding land-use conversion, production restructuring, and ensuring livelihoods for rural residents. Seven communes in the northwest of HCMC (including Cu Chi, Tan An Hoi, Thai My, An Nhon Tay, Nhuan Duc, Phu Hoa Dong, and Binh My), formerly part of Cu Chi district (hereinafter referred to as the northwestern communes of HCMC), possess the largest agricultural land area in the city and play a crucial role in the strategy for developing urban agriculture, high-tech agriculture, and sustainable agriculture. Research into agricultural economic development in these communes is of significant theoretical and practical importance in the current context. Compared with domestic studies, the results of this paper add empirical evidence at the commune level, clarifying the impact of urbanization on agricultural economics in a specific area of Ho Chi Minh City. This contributes to completing the overall picture of urban agriculture in Vietnam. The research results show that the development of agricultural economics in the northwestern communes of Ho Chi Minh City needs to be considered in the overall context of urbanization and restructuring of the city's agricultural sector. Based on this, the paper proposes several directions and solutions to improve the efficiency, sustainability, and adaptability of local agricultural economics in the coming period.

Keywords: Agricultural economics; Urban agriculture; Agricultural restructuring; Sustainable agriculture; Northwest Ho Chi Minh City..

INTRODUCTION:

1.1. Theoretical basis

Agriculture has long been considered the foundation of socio-economic development in many countries, especially developing countries. Not only does it ensure food security, but it also creates jobs, generates income, and contributes to social stability in rural areas (Schultz, 1967). In the context of globalization and climate change, the role of agriculture is increasingly expanding towards multi-functional roles, including environmental protection, ecosystem maintenance, and sustainable development (FAO, 2023).

International studies have shown that agriculture is closely linked to economic growth and poverty reduction, especially in developing countries (World Bank, 2008). However, the traditional agricultural development model based on expanding land area and exploiting resources is revealing many limitations such as land degradation, environmental pollution, and low economic efficiency. Therefore, the current general trend is to restructure agriculture towards increasing added value, applying science and technology, and sustainable development (OECD, 2021).

In Vietnam, the Party and State have issued many important guidelines and policies to promote the restructuring of the agricultural sector. Decision No. 255/QĐ-TTg (2021) clearly defines the goal of developing agriculture towards modernization,

sustainability, and improved productivity, quality, and added value. Accordingly, agriculture is not only seen as a purely production sector but also as an important part of the strategy for rural economic development and ensuring social security.

For Ho Chi Minh City - a special urban area - agriculture holds a unique position and role. Rapid urbanization has reduced agricultural land area, but at the same time, it has created a demand for the development of urban agriculture, high-tech agriculture, and ecological agriculture to meet the need for safe food in the city and protect the environment (Nguyen Thanh Trong & Nguyen Thi Dong, 2020). Among the city's areas, the Northwest region has the largest agricultural land area, playing a key role as a major agricultural production zone.

Domestic studies on agricultural economics in Ho Chi Minh City and the former Cu Chi district mainly focus on rural development, agricultural tourism, and urban agricultural development orientation (Dong Phu Hao & Ngo Thanh Loan, 2023). However, most of these studies are descriptive and have not fully analyzed the impact of urbanization on the structure, efficiency, and sustainability of agricultural economics at the district level.

Stemming from that research gap, this paper focuses on analyzing the current state of agricultural economic development in the northwestern communes of Ho Chi Minh City (formerly Cu Chi District) during the period 2014-2024, evaluating the achievements, limitations, and causes, and proposing appropriate development directions

and solutions in the context of urbanization and the current restructuring of the agricultural sector. The research results show that during the period 2014-2024, the agricultural economy of Cu Chi District (formerly) shifted towards gradually reducing the role of traditional food crops and increasing high-tech, ecological, and urban agricultural models. However, agricultural production remains largely small-scale, primarily household-based; the level of value chain linkages is limited, and the application of science and technology is uneven among different household groups and regions.

1.2. Research Methodology

This article employs qualitative research methods such as scientific abstraction, synthesis and analysis, historical-logical methods, and statistics to describe the agricultural economy of the northwestern communes of Ho Chi Minh City. Simultaneously, the author surveyed 300 typical farming households, cooperatives, and agricultural production groups in the area regarding issues related to agricultural development and its impact on farming livelihoods. Descriptive statistics were then used to process and analyze the survey data to reflect the production situation, income, crop and livestock structure, and economic efficiency. By employing these research methods, the author has generalized and constructed an overall picture of the local agricultural economic development process. This study investigates and clarifies the fundamental issues of agricultural economics and the necessity of agricultural economic development in the northwestern communes of Ho Chi Minh City. Based on this, it proposes solutions to guide local agricultural development in the coming years. The research results provide learning materials and resources for students, teachers, and researchers on issues related to agricultural economic development. Simultaneously, it provides scientific arguments and evidence for state and local authorities, organizations, and individuals to refer to, serving as a basis for leadership, guidance, and organization of agricultural economic development in Ho Chi Minh City today.

2. OVERVIEW OF THE RESEARCH SITUATION

2.1. International research on agricultural economic development in the context of urbanization

In modern development economics studies, agriculture is viewed not only as a food source but also as a crucial pillar of sustainable development, poverty reduction, and social stability, especially in developing countries (Schultz, 1967). According to the World Bank (2008), agricultural growth has a strong spillover effect on rural incomes and contributes to narrowing the development gap between regions.

However, rapid urbanization has fundamentally changed the spatial and methods of agricultural production. The OECD (2021) suggests that agriculture in suburban areas is gradually shifting towards urban agriculture, a multifunctional agricultural model that serves both production and environmental protection, providing ecological services to urban areas. In this context, maintaining traditional agriculture based on large areas and manual labor is becoming increasingly inefficient.

FAO (2023) emphasizes that current agricultural systems are incurring many “hidden costs” related to the environment, health, and society, especially in rapidly urbanizing areas. Therefore, the trend in agricultural economic development worldwide is shifting strongly towards sustainable agriculture, ecological agriculture, and high-tech agriculture models, aiming to optimize resource utilization and reduce negative impacts on the environment.

Furthermore, studies by the World Bank (2020) show that value chain linkages are a key factor determining the efficiency and sustainability of the agricultural economy. Organizing production in a value chain helps farmers reduce market risks, increase added value, and improve access to technology. However, in suburban areas, the formation of agricultural value chains often faces many obstacles due to small-scale production, fragmented land ownership, and pressure to change land use purposes.

In general, international studies agree that agricultural economic development in the context of urbanization needs to be based on three main pillars: (i) restructuring production towards high value; (ii) applying science and technology and innovating production organization; and (iii) ensuring harmony between economic, social and environmental development.

2.2. Domestic research on agricultural economics and urban agriculture

In Vietnam, the issue of agricultural economic development has received attention from many researchers and policymakers in the context of industrialization and modernization. Domestic studies consistently affirm that agriculture remains crucial to the economy, particularly for the livelihoods of rural people and ensuring national food security. In recent years, the focus of research has shifted to restructuring the agricultural sector towards increasing added value and sustainable development. Decision No. 255/QĐ-TTg (2021) clearly defines the requirement to shift from an extensive to an intensive growth model, promoting the application of high technology and the development of ecological agriculture.

For the Ho Chi Minh City area, many studies have approached agriculture from the perspective of urban agriculture. Nguyen Thanh Trong and Nguyen Thi Dong (2020) argue that urban agriculture in Ho Chi Minh City not only plays a role in food supply but also contributes to environmental protection, creating ecological landscapes and improving the quality of life for urban residents. The authors also emphasize the role of local policies in guiding and supporting the transformation of agricultural production models.

Several recent studies have focused on specific models such as agricultural tourism, high-tech agriculture, and ecological agriculture in suburban districts. Dong Phu Hao and Ngo Thanh Loan (2023) pointed out that the development of agricultural tourism in Cu Chi district has great potential, but still faces many limitations in planning, linkages, and the production organization capacity of farmers.

Although numerous studies have addressed agriculture and agricultural economics in Ho Chi Minh City, most of these studies focus on the city level or analyze specific programs and projects. Studies evaluating the overall development of agricultural economics in the Northwest of Ho Chi Minh City in relation to urbanization are still quite limited. A review of both domestic and international studies reveals several key research gaps. Firstly, international studies primarily focus on general theoretical frameworks and experiences, failing to fully reflect the specific characteristics of suburban areas in developing countries. Secondly, domestic studies on urban agriculture in Ho Chi Minh City lack analyses of suburban communes, which are most directly and significantly impacted by urbanization. Thirdly, many studies only describe the current situation or propose general directions, without in-depth analysis of factors affecting the efficiency and sustainability of agricultural economics in the context of spatial and structural economic transformation.

Stemming from these gaps, this paper focuses on analyzing the current state of agricultural economic development in the northwestern communes of Ho Chi Minh City during the period 2014-2024, clarifying the achievements, limitations, and causes in the context of urbanization. Based on this, the paper proposes orientations and solutions for agricultural economic development that are suitable to the specific characteristics of the northwestern communes of Ho Chi Minh City and the overall development strategy of Ho Chi Minh City.

3. RESEARCH RESULTS

3.1. Current status of agricultural economic development in the northwestern communes of Ho Chi Minh City

The former Cu Chi District, now comprising the communes of Cu Chi, Tan An Hoi, Thai My, An Nhon Tay, Nhuan Duc, Phu Hoa Dong, and Binh My, is located in the northwest of Ho Chi Minh City. It has a natural area of approximately 435 km², with agricultural land accounting for a large proportion. This provides favorable

conditions for the development of crop cultivation, livestock farming, and diverse agricultural models. During the period 2014-2024, the agricultural economy in this area underwent significant changes in both production structure and organizational methods.

A survey of 300 farming households in the former Cu Chi district revealed that the majority of agricultural production households are small and medium-sized, with scattered cultivated land. This makes mechanization, the application of high technology, and the organization of production along the value chain difficult. Although people's awareness of the role of science and technology in agricultural production is increasing, their ability to invest in and access technology remains limited due to a lack of capital and information. A significant proportion of farming households have not yet joined cooperatives or other forms of production linkages, leading to difficulties in product consumption and access to stable markets. This result is consistent with the World Bank's (2020) assessment that value chain linkages and large-scale production organization are key factors in improving the efficiency and sustainability of agriculture in the context of integration.

Statistics show that the area of rice cultivation in this region is gradually decreasing, giving way to crops with higher economic value such as safe vegetables, fruit trees, and ornamental flowers. This trend is consistent with Ho Chi Minh City's general orientation on developing urban agriculture and high-tech agriculture (Ministry of Agriculture and Rural Development, 2021). In addition, concentrated livestock farming and aquaculture are also being gradually planned to minimize environmental pollution and improve economic efficiency. However, the agricultural restructuring process in the Northwest of Ho Chi Minh City is still uneven across communes. Some areas with good market access and infrastructure have quickly adopted high-tech agricultural models, while many others maintain traditional production methods with low productivity and efficiency.

Table 1. Agricultural land use structure in Cu Chi district, 2014-2024

Agricultural land	2014 (%)	2019 (%)	2024 (%)
Rice paddy land	38.5	31.2	24.6
Land for growing safe vegetables	14.8	18.6	23.4
Fruit tree land	11.2	14.5	17.8
Land for concentrated livestock farming	9.5	12.3	15.1
High-tech agricultural land	3.1	6.8	11.5

Source: Compiled from reports on the agricultural sector of Cu Chi district and processed by the author.

Table 1 shows that the agricultural land use structure in the northwestern communes of Ho Chi Minh City during the period 2014-2024 has undergone a significant shift in line with urbanization and agricultural restructuring. The

proportion of rice cultivation land decreased sharply from 38.5% in 2014 to 24.6% in 2024, reflecting a trend of shrinking production types with low added value and inefficient land use. Conversely, the area dedicated to safe vegetables, fruit trees, and especially high-tech agriculture has increased significantly. The rapid increase in high-

tech agricultural land, from 3.1% to 11.5%, shows that the orientation towards modern agricultural development in Cu Chi district is gradually being realized. However, this shift also poses challenges in planning, investment, and technical support to ensure efficient and sustainable land use in the long term.

Table 2. Main crop and livestock structure in Cu Chi District

Production team	Percentage (%)
Paddy	22.4
Safe vegetables	26.7
Fruit trees	18.9
Pig and dairy farming	21.3
High-tech agriculture	10.7

Source: Compilation of survey results and secondary data

The data in Table 2 clearly reflects the characteristics and development orientation of agricultural production in the northwestern communes of Ho Chi Minh City. Production groups such as safe vegetables, fruit trees, and livestock farming account for a large proportion, showing that local agriculture is gradually shifting from the goal of ensuring output to the goal of increasing economic value and meeting the needs of the urban market. Dairy and pig farming play an important role in creating stable income for farming households, while high-tech agriculture, although still relatively small, is identified as a strategic development direction for the future. This structure

reflects the adaptation of agriculture in the northwestern communes of Ho Chi Minh City to the requirements of urban agriculture and high-value agriculture development in Ho Chi Minh City. The crops grown here all play an important role in economic development and ensuring livelihoods in the area. Rice is a crop that contributes to ensuring food security, safe vegetables have export value and supply urban areas, and high-value fruit crops need to be developed. The region is also investing in the development of high-tech agricultural products, which is a suitable development direction for the coming years.

Table 3. Characteristics of the farmer household survey sample (n = 300)

Criteria	Classify	Percentage (%)
Land area	< 0.5 ha	41.3
	0.5 - 1 ha	37.8
	> 1 hectare	20.9
Production method	Individual	63.5
	Join the cooperative	36.5
Application of technology	Short	44.2
	Medium	38.6
	High	17.2

Source: Results of the author's survey.

Table 3 presents the basic characteristics of the survey sample of 300 farming households in the northwestern communes of Ho Chi Minh City. The results show that the majority of households have small to medium-sized production land, with the group of households with an area of less than 1 hectare accounting for nearly 80% of the total sample. This clearly reflects the fragmentation of

agricultural production in the locality, making mechanization and the application of large-scale production models difficult. In addition, the percentage of households participating in cooperatives is still quite low, indicating that production linkages have not yet become a widespread trend. The level of technology application in production is also not high, with only 17.2% of households rated as high, highlighting the urgent need for support policies and training to promote the transition to modern agriculture.

Table 4. Farmers' perceptions of high-tech agriculture

Review content	Agree (%)
CNC helps increase productivity.	78.6
CNC helps stabilize the output.	52.4
CNC requires significant capital investment.	81.9
CNC needs government support.	74.1

Source: Results of the author's survey

The results in Table 4 show that farmers in the northwestern communes of Ho Chi Minh City have a relatively positive perception of high-tech agriculture. The majority of respondents believe that applying high technology helps increase productivity and improve production efficiency. However, the percentage agreeing that high-tech agriculture helps stabilize output is only average, reflecting a lack of confidence among farmers in

the product market. Notably, the majority of households believe that high-tech agriculture requires significant investment and government support. This highlights the gap between awareness and practical implementation capabilities, and emphasizes the crucial role of support policies in promoting the development of high-tech agriculture in the locality.

Table 5. Main difficulties in agricultural economic development

Disadvantaged group	Percentage of households affected (%)
Lack of investment capital	69.3
Unstable output	61.7
Lack of production linkages	58.4
Lack of market information	46.9
Pressure to convert land	42.1

Source: Results of the author's survey.

Table 5 summarizes the main difficulties faced by farmers in the northwestern communes of Ho Chi Minh City in developing their agricultural economy. Lack of investment capital and unstable output are the two most prominent difficulties, reflecting limitations in farmers' access to resources and markets. In addition, the lack of production linkages and market information increases risks in agricultural production. The pressure to change

land use due to urbanization further complicates the maintenance of agricultural production. These results indicate that the development of the agricultural economy in the northwestern communes of Ho Chi Minh City requires support from comprehensive and long-term policies.

Table 6. Comprehensive assessment of agricultural economic development in Cu Chi district

Criteria	Evaluate
Structural transformation	81,3%
Economic efficiency	62,7%
Value chain linkage	39,9%
CNC applications	50,6%
Sustainability	44,3%

Source: Results of the author's survey.

Table 6 provides an overview of the agricultural economic development situation in Cu Chi District. Although the agricultural restructuring process is considered positive, economic efficiency and the level of value chain linkage

remain at a medium to low level. The application of high technology is not uniform among household groups and areas, leading to low sustainability of the agricultural economy. This comprehensive assessment serves as an

important basis for further analysis in the discussion section and for proposing appropriate policy implications.

3.3. Assessment of agricultural economic development in the northwestern communes of Ho Chi Minh City

Overall, the agricultural economy of the northwestern communes of Ho Chi Minh City has achieved certain successes in the process of structural transformation and technology application. Agriculture not only contributes to local economic growth but also plays an important role in ensuring the supply of agricultural products for Ho Chi Minh City. However, limitations such as fragmented production, weak linkages, the impact of urbanization on agricultural land, and environmental pressure remain major challenges. The main reasons stem from limitations in capital, the management skills of farming households, and the lack of uniformity in policies supporting agricultural development.

The research results show that the trend of shifting the agricultural economic structure in the northwestern communes of Ho Chi Minh City is consistent with the findings in international studies on suburban and urban agriculture (OECD, 2021; FAO, 2023). The gradual reduction in the area of traditional food crops and the increase in high-value agricultural models reflect the adaptation of local agriculture to urbanization and market pressures. Compared to studies by the World Bank (2020), the results in the northwestern communes of Ho Chi Minh City show that value chain linkages remain a major weakness of the local agricultural economy. Although farmers' awareness of high-tech agriculture has improved, the lack of effective production organization forms limits market access and value-added enhancement.

4. CONCLUSION

REFERENCES

1. FAO. (2023). *The State of Food and Agriculture 2023: Revealing the hidden costs of agrifood systems*. Rome: FAO. <https://doi.org/10.4060/cc7724en>
2. World Bank. (2008). *World Development Report 2008: Agriculture for development*. Washington, DC: World Bank.
3. World Bank. (2020). *Transforming agriculture for inclusive growth*. Washington, DC: World Bank. <https://doi.org/10.1596/978-1-4648-1525-7>
4. OECD. (2021). *Making cities work for all*. Paris: OECD Publishing. <https://doi.org/10.1787/effde7b0-en>
5. Schultz, TW (1967). *The economic organization of agriculture*. New York: McGraw-Hill.
6. Ministry of Agriculture and Rural Development. (2021). Decision No. 255/QĐ-TTg on the plan for restructuring the agricultural sector in the period 2021-2025. Hanoi.
7. Nguyen Thanh Trong, & Nguyen Thi Dong. (2020). New rural development in Cu Chi district suitable to the characteristics of rural areas of Ho Chi Minh City. *Journal of Science*, 12(3), 45-55.
8. Dong Phu Hao, & Ngo Thanh Loan. (2023). Agricultural tourism development in Cu Chi District, Ho Chi Minh City. *Journal of Economic Development*, 34(2), 67-78.

Research results show that agricultural economic development in the northwestern communes of Ho Chi Minh City is a complex process, simultaneously affected by urbanization, development policies, and local socio-economic conditions. During the period 2014-2024, the northwestern communes of Ho Chi Minh City achieved positive results in shifting their agricultural structure towards modernization and sustainability, but many limitations still need to be overcome.

From the research results, several important policy implications can be drawn. Firstly, local authorities need to continue improving agricultural development planning in conjunction with urban planning, ensuring a reasonable and stable supply of agricultural land for efficient production models. Secondly, it is necessary to strengthen support for farmers in accessing capital, science and technology, and market information, especially for high-tech and ecological agricultural models. Enhancing the role of cooperatives and production linkages is a key solution to overcome fragmented production and improve economic efficiency. Thirdly, agricultural economic development policies in the northwestern communes of Ho Chi Minh City need to be linked to sustainable development goals, focusing on environmental protection and adaptation to climate change, in line with the overall direction of Ho Chi Minh City and the whole country. It is necessary to continue improving mechanisms to support farmers in accessing capital, science and technology, and consumer markets, while enhancing the role of cooperatives in linking production and product consumption. In addition, greater emphasis should be placed on integrating agricultural development with urban planning and environmental protection to ensure long-term sustainability.