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## UPDATING THE APPROACHES TO FARMS' DEVELOPMENT IN VIETNAM: INSTITUTIONAL ASPECT

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**Abstract.** Over the past 30 years of serious economic reform, structural changes in agriculture in the Republic of Vietnam have led to a decline in the number of small farms. The main purpose of this article is to reveal the features of their institutionalization by means of an overview of the main stages in farms' operation. The results show that the structure of farms in the agricultural system of Vietnam developed under the influence of the negative trends of the 1990s, when economic conditions and policies were adequately adjusted due to self-organized production and commercial measures in the 2000s. However, even today there are problems that hinder their development, such as underdevelopment of the banking system, presence of institutional narrow spaces, technical and technological limitations, low potential of labor resources, and complicated access to sources of financing and land. The discrepancy between the structure of farms and the requirements for the development of the agro-industrial complex in the face of new challenges and risks creates obstacles and complicates the process of making effective decisions on innovation. Thus, the most important directions for the future development of farming are connected with increasing production and developing effective business support measures (including capital, labor, technology, information and market) in order to increase competitiveness and create an institutional environment for innovative agricultural development in Vietnam.

**Key words:** Republic of Vietnam, economic structure, comparative advantages, farming, risks, innovations, institutionalization, government support.

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## АКТУАЛИЗАЦИЯ ПОДХОДОВ К РАЗВИТИЮ ФЕРМЕРСКИХ ХОЗЯЙСТВ ВО ВЬЕТНАМЕ: ИНСТИТУЦИОНАЛЬНЫЙ АСПЕКТ

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**Аннотация.** За последние 30 лет масштабной экономической реформы структурные изменения в сельском хозяйстве Республики Вьетнам привели к снижению численности мелких фермерских хозяйств. Основная цель этой статьи – через обзор основных этапов функционирования фермерских хозяйств раскрыть особенности их институ-

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ционализации. Результаты показывают, что структура фермерских хозяйств в сельскохозяйственной системе Вьетнама развивалась под воздействием негативных тенденций 1990-х гг., в то время как экономические условия и политика были адекватно скорректированы благодаря самоорганизации производственных и коммерческих процессов в 2000-х годах. Однако и сегодня сохраняются проблемы, сдерживающие их развитие, такие как неразвитость банковской системы, наличие институционально «узких мест», технико-технологические ограничения, низкий потенциал трудовых ресурсов, трудный доступ к источникам финансирования и земле. Несоответствие структуры ферм требованиям развития агропромышленного комплекса в условиях новых вызовов и рисков создает препятствия и усложняет процесс принятия эффективных решений по инновациям. Таким образом, наиболее важные направления для будущего развития фермерских хозяйств связаны с увеличением производства и разработкой эффективных мер поддержки бизнеса (включая капитал, рабочую силу, технологии, информацию и рынок) в целях повышения конкурентоспособности и создания институциональной среды для инновационного развития сельского хозяйства во Вьетнаме.

**Ключевые слова:** Республика Вьетнам, структура экономики, сравнительные преимущества, фермерское хозяйство, риски, инновации, институционализация, государственная поддержка.

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## Introduction

Previous research found that the farm economy played a critical role in the overall socioeconomic growth and well-being of the Vietnamese people [Nguyen, 2000; Pham, 2006; Dinh, 2010; Duong, 2016; Nguyen, Mitrofanova, 2021a; 2021b]. However, continuous structural changes in agriculture (due to both internal and external factors) have caused uncertainties to its future.

Due to this reality, two major missions for the global and domestic agricultural industry are ensuring the long-term operation of farm and forecasting its future trends. The purpose of this study is to evaluate the characteristics of major stages in farm institutionalization and analyze their evolution in the Vietnamese agricultural system.

## Literature review

A solid scientific foundation for a comprehensive evaluation of the farm institutionalization operation and its development mechanism has yet to be fully developed in the economic research. The general methodological basis of studying the essence, genesis, structural and functional component of the economic mechanism were applied in the works of P.G. Bunich [Bunich, 1980]; L.I. Abalkin [Abalkin, 1978; 1982]; O.V. Inshakov [Inshakov, 1995].

Aspects of institutional mechanism development (as a subset of economic mechanism) for the agro-industrial complex, including the farm formation and development as a small economic institution, were studied by Russian scientists such as T.S. Lebedeva [Lebedeva, 2018]; T.I. Sharovatova, R.G. Radjabov, Zh.N. Moiseenko [Sharovatatova, Radjabov,

Moiseenko, 2018]; R.K. Eredzhepova [Eredzhepova, 2019]; O.Yu. Voronkova, V.V. Sorokina, S.V. Baburin [Voronkova, Sorokina, Baburin, 2019] and others. However, the research problem of farm institutionalization in Vietnam today is still out of economic scientific research theory and methodology.

The research of Western scientists such as M.P. Todaro [Todaro, 1969]; H.T. Oshima [Oshima, 1989]; and S.S. Park [Park, 1977] on the agricultural organization and production in each stage has had a significant impact on the development history of agricultural production. As a result, authors following the Russian school of “organization-production” devised a methodological structure to evaluate the evolution of agriculture in the context of domestic economic history D.P. Frolov, A.V. Lavrentieva [Frolov, Lavrentieva, 2015]; I.S. Ivanenko, N.A. Yakovenko [Ivanenko, Yakovenko, 2017]; L.N. Ivanova, T.E. Kuznetsova [Ivanova, Kuznetsova, 2018]. However, the aforementioned writers' perspectives on the assessment of structural transformation in the agricultural sector of the economy might be unclear and inconsistent at times.

In conditions of uncertainty, the functioning of the economic entities of the agro-industrial complex undergoes a qualitative transformation (caused by internal and external circumstances). To discover its details, it is necessary to determine the content of the institutional structure of the agro-industrial complex, as studied by D.P. Frolov and A.V. Lavrentieva [Frolov, Lavrentieva, 2015]. As a result, the evolutionary interaction of social division and labor cooperation in the functioning of economic mechanism plays the role in defining the institutional structure essence of the agro-industrial complex as a factor of agricultural

production is associated with the endogenous and universal nature of the institution.

In his research works, O.V. Inshakova defined the application of a process approach to the management mechanism that allows to justify the cyclical essence of its actions in order to determine the possibility of “regular adjustment of economic subjects on a basis of the achieved goals, internal conflicts and changes in the external environment” [Inshakov, 1995: 25]. According to the research by L.V. Popova and others [Popova et al., 2016], the existence of a small economic institution’s life cycle may be explained by considering the its development as the outcome of the interaction of institutional structures at various stages of development.

It is undeniable that most of the current scientific research on farm life cycle is still in the discovery phase. At the micro level, farms have a life cycle similar to the farmer, which is heavily reliant on the farm’s productive function. The age, education, and experience of the chief operator are all important factors in the farm life cycle in the development stage [Gale, 1994]. Research of A.G. Burda [Burda, 2014] aimed to demonstrate methods for mathematical modeling of optimum parameters and investigate the farm reproduction in the context of life cycle and production of family. At the macro level, there is no scientific foundation for presenting a process associated to farms may or may not continue to exist in a country’s agricultural system. In light of this relationship, it is reasonable to implement a meta-analysis of various accesses to mechanism of developing the farm economy in Vietnam.

### **Material and method**

The methodology and application value meaning of the aforementioned authors’ work is improving the mechanism of farm economy development in Vietnam. The propositions are decided by: 1) the characteristics of its operating environment (market, institution); 2) the determination of its development orbit on the basis of life cycle notion of economic structures. Thus, life cycle analysis and major farm institutionalization rules predetermine the dynamic and uneven growth of institutional structure of agro-industrial complex. A combination of complementary scientific methodologies is used to solve specific challenges (problem – time, comparison – history, system – monograph). Through the characteristics of farm development stages, these methods were proved to be effective. Quantitative data was processed by using statistical procedures.

### **Results and discussion**

According to the scientific views in the economic research to the concept of “mechanism”, there are of three stages of development along with their characteristics as follows: first, structural change (from 1940 to early 1970s); second, the emergence of new functions (from early 1970s to late 1980s); and third, the increasing complexity of the mechanism (mid-1990s to present), which allows us to find out the key relationship between the farm economy, economy and institutions.

On one hand, the essence of the operational mechanism for farm development is the system of regulation, administration of economic and state institutions for farm development. On the other hand, it is related to the economic activity of the subjects who orient the farm to a certain mode of production for reflecting its nature. The basic rule of this mechanism’s creation is to bring together the interests of owners, individual laborers, production units and the whole economic system.

Economists also demonstrated that any economic structure evolves in a cycle, passing through many phases before giving way to other ones. From the stages of formation, growth, maturity and decline or re-development, the cyclical development of the economic structure is a natural and sequential process.

On a basis of the economic structure’s life cycle, we can look into the economic and organizational challenges of the farm structure more systematically, define its current situation more specifically, forecast the upcoming development and potential crises. The period of development in particular and the life cycle in general is different on the basis of factors and conditions that make up a certain internal/external environment as well as the corresponding strategy for their activities. When changing the stages of the life cycle or going from one cycle to another, economic subjects’ interests and economic conduct adjust (implying a change in the type of economy).

The classification of historical periods of agricultural economic growth in Vietnam in the time frame studied is the foundation of the farm structure development research by life cycle:

– the first stage occurred in the 1990s due to the buildup of systemic malfunctions and institutional inconsistencies throughout the agricultural transition in the context of market economy formation and enforcement;

– the second stage appeared at the beginning of the 2000s; the development path of the socialist-oriented market economy is affirmed; thanks to the

policy of the competent State and the financial support of agricultural businesses, the country has normalized the agricultural situation;

– the third stage is active growth, which continues into our day via specialization and integration of agro-industrial, economic, and social infrastructure.

Analyzing the evolution of the agricultural economy in Vietnam from the perspective of the life cycle of economic structure may be divided into three stages: formation (1989–1999); growth (2000–2010); and maturity (2011– present) (Fig. 1).

A subset of factors influence the shifting of the life cycle stages (production scale, technical facilities, institutional framework, productivity, goals and motivations of owner) and on – going activities. At each step of the farm's life cycle, the programs of state assistance must be adjusted to the transition mechanism and the accompanying set of activities. Details of the research problem are listed below:

*Formation stage (1989–1999).* Before 1980, agriculture in Vietnam's northern regions was dominated by two types of production: state-owned farms and cooperatives. These two models are based on community ownership and whole-person ownership, with management methods based on centralized mechanisms and direct planning. As a result, farmers' production motivation is lost, production dynamism is constrained and the rural economy's development is hampered. Farmers have very little autonomy and the function of managing home production is restricted to a relatively small amount of land (occupying about 5% of total land area) for supplying their families.

The Vietnamese government chose to overcome the impasse in the late 1980s by scrapping the food procurement system and establishing a multi-

sector economy based on the market mechanism with state orientation [Directive No. 100/CT-TW ... , 1981]. In which, the agricultural sector has undergone significant changes in terms of economic mechanisms, such as:

1. Recognizing households as independent economic subjects that should be encouraged to develop.

2. Institutionalizing the transfer of land to farmers as direct producers; on that basis, the state issued a system of policies to facilitate the formation and development of farms.

3. Resolution No. 10 – NQ/TW of the Sixth Politburo on reforming agricultural economic management clearly defined “The State recognizes the long-term existence and positive effects of individual and private economy in the market economy, acknowledges legal status and protects inheritance rights; creates favorable conditions and environment for these sectors to develop agriculture, forestry and fishery” [Resolution No. 10/NQ-TW, 1988].

4. Resolution No. 05 – NQ/TW of the Seventh Politburo [Resolution No. 05/NQ/TW, 1993] and the Land Law [Law No. 13/2003/QH11, 1993] focused on developing the individual and private economy in agriculture, forestry and aquaculture. It encourages all economic sectors to invest in building material and technical facilities in order to produce new varieties with high efficiency, to develop production and business on an appropriate scale.

5. Resolution No. 04-NQ/TW of the Eighth Politburo [Resolution No. 04-NQ/TW, 1997] affirmed that farm economy with different forms of ownership (state ownership, collective ownership, private ownership) is mainly essential for farming and raising livestock.

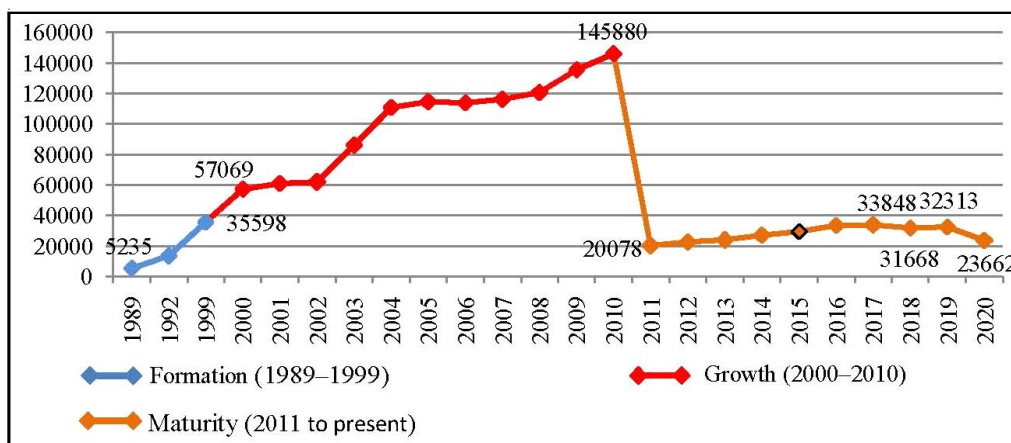


Fig. 1. Life cycle stages of farm economy in Vietnam

Note. Source: [Socio-Economic Statistical Data ... , 2022].

As a result, Vietnam’s farm economy can develop into many various forms (private, joint stock, joint venture), but the family farm is the most suited and popular. As management and production cannot be separated in agricultural production, farm owners must be managers, direct workers and merchants. Farm owners must possess agricultural knowledge, expertise and management capabilities.

The permanent characteristics of agricultural activities, which has evolved through generations to secure the family’s economic security and the economic base’s long-term stability, acts as a protective barrier against incursion and unwelcome outside meddling. This offers a level of autonomy and independence that allows the family farm to adapt effectively to environmental changes and select economic strategies that best serve the family’s interests in this context.

According to the General Statistics Office’s statistics, there were 5,235 farms in total in 1989, however, there were 13,246 farms with a 2.53 time increase by 1992. In 1999, the total number of farms in the country was 35,598, increasing 6.8% from 1989. From 1989 to 1992, land area in agricultural production expanded 2.54 times, from 22,946 hectares to 58,282 hectares, to 396,282 hectares in 1999, 6.81 times greater than 1992 and 17.29 times higher than 1989. If counted from its establishment in 1989, the total investment capital of farms is 513,677 million VND in 1999, as compared with the figure of 18,030,000 million VND in 1999, it was 35.1 times greater. This reflects the progressive growth in investment in intensive farming, which utilizes scientific and technological developments to industrialize and modernize farms in recent years. In the period of 1997–1999, the average total product value of farms was about 9,575 billion VND each year, accounting for 7.89% of the overall value of agricultural products. In particular, the percentage of agricultural goods and farm commodities was

78.6% in 1992, but it surged to 86.74% in 1999 [Socio-Economic Statistical Data ... , 2022].

*Growth period (2000–2010).* The farm economy continues to expand and play an increasingly significant role in agriculture, forestry, and aquaculture output after the Government’s Resolution 03/2000/NQ-CP on the farm economy. This is a significant step in moving Vietnam’s agriculture to the next level: rapidly developing the farm economy in order to gradually modernize agricultural output and improve living conditions and keep jobs stable for farmers. When a farm has a land area (more than 2 hectares) and an average yearly output of products and services (from VND 40 million or above) [Decree No. 03/2000/NQ-CP, 2000], it is established and granted a certificate (Table).

In this stage, the agricultural production movement was still heading towards more industrialized and sustainable development. As a result, the agricultural industry in Vietnam has expanded significantly. In 2010, there were 145,880 farms with an increase of 88,811 farms (155.6%), compared to 32,150 farms (28.3%) in 2006. The Table shows that the number of farms in Vietnam is evenly spread across the country’s territory. The Mekong River Delta, the Red River Delta, the North Central Coast and the Central Coast are places with enough of area and water to grow agricultural, husbandry, and aquaculture operations. a typical amount of farms. There are 114,895 farms in these three regions, accounting for 78.7% of all farms. The Mekong Delta, in particular, contains 69,830 farms, accounting for approximately half of the country’s total number of farms. Each geographical location has clearly utilized its natural advantages and encouraged economic sectors to engage in creating various modes of production.

The total area of agricultural land used by farms is 663.5 million hectares, increasing 290.3 million

*Table*

**Number of farms by region in Vietnam 2000–2010**

Regions	2000	2002	2004	2006	2008	2010
Whole country	57,069	61,787	110,832	113,730	120,699	145,880
Red River Delta	1,646	1,939	8,131	13,863	17,318	23,574
North Midland and Mountainous	3,075	3,373	5,384	5,226	4,423	6,108
North Central and South Central Coast	7,206	6,159	12,818	13,564	18,202	21,491
Central Highlands	3,589	6,223	9,450	8,785	9,481	8,932
South East	9,586	12,126	18,921	16,425	13792	15,945
Mekong River Delta	31,967	31,967	56,128	54,425	57483	69,830

*Note.* Source: [Socio-Economic Statistical Data ... , 2022]. The number of farms is calculated according to the farm criteria specified in the Circular No. 74/2003/TT-BNN dated July 4, 2003 of the Ministry of Agriculture and Rural Development.

hectares from 2001 (1 farm uses 5.8 hectares on average). In 2006, total farm output and commercial revenue were VND 19,826 billion, increasing 3.6 times from 2001, with an average of VND 174.9 million per farm, increasing 1.9 times from 2001 [Socio-Economic Statistical Data ... , 2022].

As only a small rate of farmers can be adapted to agribusiness, the major task for Vietnam in this period is to modernize agriculture while alleviating poverty in rural regions [Taylor, 2007: 10-11]. Small producers may struggle to compete with modern and large-scale production farms because they will be unable to compete for available market resources [Ogle, Phuc, 1997] and may lack the necessary skills for the high-level managerial positions necessary in modern agriculture [Preston, 1995]. Many farmers will lose fertile land when land is acquired for modern agriculture. However, industries and services have not yet acquired all of the agricultural workers, this will result in a drop in job prospects in the countryside, easily turning the problem of rural unemployment into an urban unemployment crisis.

*Maturity stage (from 2011 to present).* The benefits of the market economy have been shown and it has expanded to many countries throughout the world. It provides the incentive for the growth and cooperation, initially in economic terms, then in other areas such as politics, culture and so on. In 1995, Vietnam joined the Association of Southeast Asian Nations and normalized relations with the United States; in 2006, it joined the World Trade Organization; in 2008, it took advantage of the economic partnership agreement between Vietnam and Japan; in 2018, it signed the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and in 2019, it attained free trade agreements with the EU [Rural Census Report, 2016]. The trend of international integration and globalization requires Vietnamese agriculture to accept competitive barriers and comply with market standards in all three economic, social and environmental fields. This is the stage of expanding the production scale and economic foundation of the farm, gradually forming new production organizations and linkages, increasing the potential for economic integration and sustainable development. This brought many opportunities and challenges for the development of farms during this period.

The accumulation of experience and production factors in the farm economy is the result of the previous stages of development. In particular, the process of land consolidation and exchange of plots has limited the fragmentation and dispersion of the farm economy. The area that has been accumulated

and exchanged for plots is 693.7 thousand hectares, accounting for 6% of the total area of agricultural production land; the average area of a land plot has increased from 1,619.7m<sup>2</sup> in 2011 to 1,843.1 m<sup>2</sup> in 2016. Statistical results show that farms have had a tendency to increase in size and gradually decrease in number since 2010. Large-scale farms grew at a rapid pace in 2017 with 33,848 farms, an increase of 69.5% compared to 2011. Due to the strong impact of climate change and African swine fever, the number of farms in 2018 decreased by 7% compared to 2017, but the effectiveness of the Government's timely support policies increased the number of farms in 2019 (with 32,313 farms, an increase of 37.9% compared to 2011).

There are differences in the old criteria and new criteria of farms. According to the old criteria of Circular No. 27/2011/TT-BNNPTNT dated April 13, 2011 of the Ministry of Agriculture and Rural Development, the criteria and procedures for granting farm economy certificate stipulates that the farm must meet one of two criteria: product output per year is 500 million VND or the farm's production scale is large (from 3–5 hectares/farm). Whereas, according to the new criteria of Circular No. 02/2020/TT-BNNPTNT is the low area (1 hectare or more/farm) or the high production value (from 1–2 billion VND/year). This is the main reason for the sharp decrease in the number of farms in Vietnam during this period (in 2020, it decreased to 23,662). Thus, the exiting of small-scale farms from agriculture is considered to be an integral part of structural change. It can be seen that growth of some entities (large-scale farms) is conditional on the disappearance of others (small-scale farms), which will release land resources that remain in a state of relative shortage [Breustedt, Glauben, 2007].

In 2019, the whole country had 8,420 crop farms, accounting for 26.06% of the total number of farms in the country; 20,310 livestock farms, accounting for 62.85%; 2,328 aquaculture farms, accounting for 7.2% and 1,255 other farms, accounting for 3.89%.

The modes of production in farms have decreased in the rate of plant farms and aquacultural farms and increased in the rate of livestock farm. Plant farms decreased from 43.01% in 2011 to 26.06% in 2019, but aquacultural farms decreased from 22.11% to 7.2% while livestock farms increased from 31.21% to 62.85% during the same time (see fig. 2). As a result, the mode of farm has changed dramatically on a national scale, with fewer aquacultural farms and more livestock farms. The growth in the number of livestock farms is in line

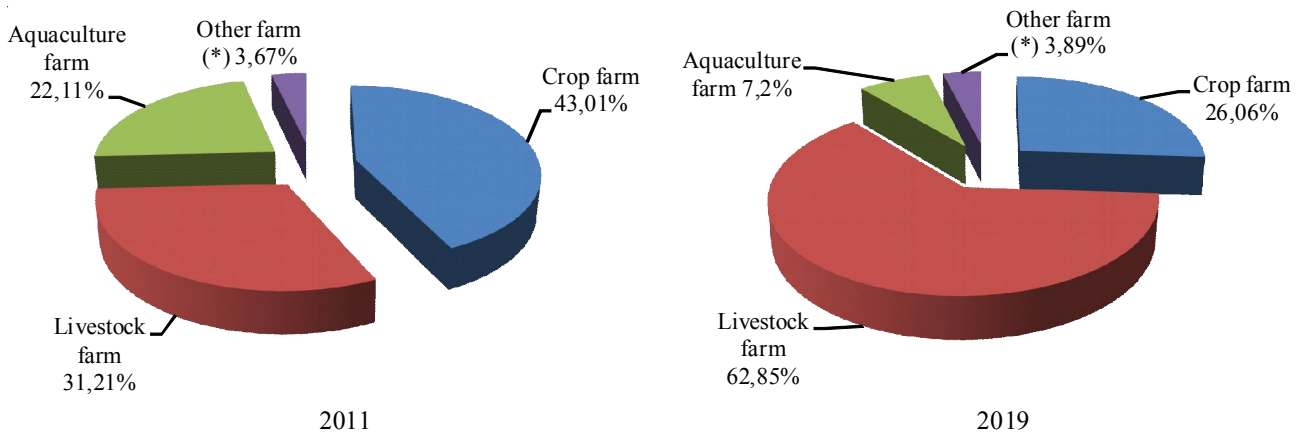


Fig. 2. Farm structure by production sector

Note. Source: [Socio-Economic Statistical Data ... , 2022]. \* Including: Forestry farm and combining farm. The number of farms is calculated according to the farm criteria specified in the Circular No.27/2011/TT-BNNPTNT dated April 13, 2011 of the Ministry of Agriculture and Rural Development.

with livestock development strategies in centered model with distanced residential areas in order to reduce pollution.

Although the prices of agricultural products due to epidemics often fluctuate, the total revenue from agricultural, forestry and fishery production in 2020 reached VND 524,326 billion, an increase of VND 13,694 billion (2.68%) compared with 2019. The value of products obtained per hectare of arable plant growth land and aquaculture water surface continuously increased in the period 2015–2020 (Fig. 3). The reason is that farms often combine specialization with production diversification to take advantage of the surplus farm’s land and labor resources [Nguyen, 2000: 21]. In addition, farms have created more jobs and attracted more and more workers. In 2016, the total number of regular employees of the farm reached 135.5 thousand people, an increase of 43.2% compared to 2011, an average annual increase of 7.4%. In 2020, the number of employees is 91.2 thousand people although the number of farms has decreased significantly.

These achievements do not ensure that Vietnam’s agricultural sector will continue to thrive in the future. There are a number of structural issues that are preventing farmers from making breakthroughs. These include market economic distortions, banking system instability and institutional bottlenecks, insufficient physical facilities, poor human resource skills, credit availability and land scarcity. Farmers are also affected by a variety of risks due to the characteristics of agricultural production, including price fluctuations in agricultural products, raw material prices, natural disaster risks and epidemic [Nguyen, Le, 2014], but they have not been proactive in the use of risk management tools to avoid and respond to risks [Le, 2011]. In its course of development, the farm economy has substantial deficiencies in the production line, post-harvest technologies, quality and food hygiene and safety [Duong, 2016]. Due to loose connection in trade contacts between factors in the value chain, poor processing technology, low processing capacity and others, Vietnam’s agricultural goods are only engaged in the least value generation stage of the global value

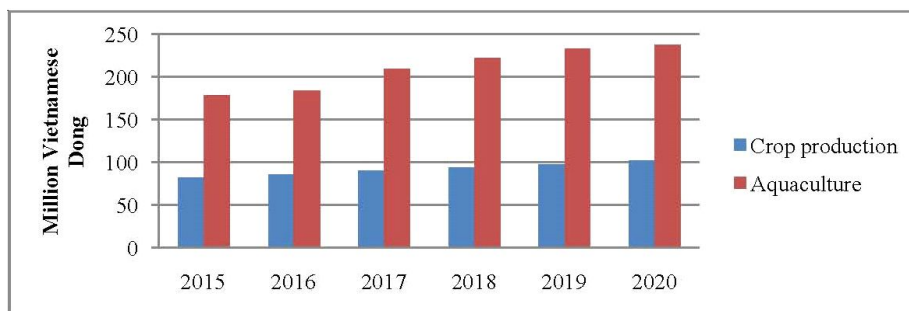


Fig. 3. Cost of products obtained per hectare of crop land and aquaculture water surface in the period 2015–2020.

Note. Source: [Socio-Economic Statistical Data ... , 2022].

chain, capacity of product processing remains in raw items [Ton, Tran, 2018].

Recent studies of climate change and the Covid pandemic have shown linkages and interdependencies between agriculture, society and the economy, as well as the susceptibility of agriculture to external disruptions. The shortage of input materials and low yields [Trinh, 2018], stagnation of production and changes in supply chain procedures [Bui et al., 2021; Thanh, Duy, Duong, 2022] and lower customer purchasing power [Ha, Bui, 2020] are all having a negative impact on the farm's development in the future.

All of the above suggests that under new conditions, farm economy development in Vietnam could be a period of decline without cooperation between farms and state regulation for their activities. To prevent this situation, support programs in a number of priority areas must be implemented such as "Promoting agriculture 4.0", "Stimulating digital transformation", "Improving the quality of labor resources and reallocating labor resources", "Credit support", "Promoting farms to participate in value chains and global value chains" [Nguyen, Mitrofanova, 2021a].

### Conclusion

After 30 years of comprehensive economic reform, dynamic structural change including decreases in the number of farms has been witnessed. These trends are positive which result in a farm economy development trajectory that has gone through three cyclical stages (formation, growth, and maturity) as well as potential development directions.

Small-scale Vietnamese farms expanded dramatically in the first stage mainly due to government support. Then, farms accumulate and focus on production as a result of industrialization, increasing their scale while the number of farms tends to diminish. This is in line with the global development pattern of countries like the United States, the United Kingdom, Germany, Russia, and Japan [Nguyen, 2022: 6-7].

The inconsistency of the farm structure with the agricultural complex's development requirements against new challenges and risks generates roadblocks and complicates the process of decision-making on innovation.

Therefore, there are two most important directions for the future development of farms. Firstly, promoting measures to support production and business

(including capital, labor, technology, information, market, etc.) to increase competitiveness. Secondly, creating of an institutional environment of innovational development in the agricultural system.

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