

Examining the Concentration of Agricultural Land in Vietnam: Trends, Implications, and Solutions

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Abstract: The concentration of agricultural land refers to expanding the area of agricultural land to structure production through the following methods: exchange, lease of land use rights, or cooperation as land use rights. In recent years, Vietnam has made many efforts to implement the concentration of agricultural land, and it continues to be emphasized in Resolution No 19-NQ/TW (2022). Almost all current studies have described the current status, but they have not comprehensively evaluated and updated the advantages, difficulties, and causes of implementing agricultural land accumulation in Vietnam. Therefore, this study aims to evaluate the achievements, difficulties, and obstacles, and thereby propose solutions to promote the concentration of agricultural land by some methods namely: empirical study, data analysis, and expert investigation. The concentration of agricultural land is thought to be a useful way to reduce land fragmentation, advance large-scale concentrated agriculture, and enhance land use efficiency in Vietnam, however, it is facing difficulties and obstacles such as capital shortage, limitations of policy and law, and outdated infrastructure. To encourage the concentration of agricultural land, it is required to simultaneously execute solutions as follows: complete policies, and laws to encourage households, individuals, businesses, and cooperatives to concentrate agricultural land; plan out and carry out focused production zones and specialized farming areas; Ensure capital sources to implement the concentration of agricultural land; ensure sufficient human resources to carry out the concentration of agricultural land; complete rural infrastructure.

Keywords: Agricultural Land, Concentration, Obstacle, Solution, Vietnam

Article History

Received: 10 January 2024; Revised: 2 February 2024; Accepted: 15 March 2024

Online: 27 April 2024; Published: Volume (3) Issue (1) May 10, 2024

<https://doi.org/10.69501/sdh30v74>

1. Introduction

Vietnam, characterized as an agrarian nation, witnesses over 30% of its households relying on agriculture as their primary source of livelihood (General Statistics Offices of Vietnam, 2016). The agricultural sector plays a key role in Vietnam's reform process and it significantly advances the goals of ending hunger, reducing poverty, and ensuring food security (Otsuka, 2013; Wegren and Elvestad, 2018; Le and Carolyn, 2021). Upholding socialist principles that advocate for equitable access to essential resources and social opportunities, Vietnam has embarked on institutional reforms concerning land agriculture over the past decades. Resolution No. 10 of the Politburo in 1988 stated that households are acknowledged as independent economic entities with comparable legal rights, and land is allotted for steady, long-term use (Politburo of Vietnam, 1988). Next, the 1993 Land Law and Decree No 64/CP underscore the allocation of agricultural land to households with rights spanning 20 years for annual crops and 50 years for perennial crops (Cazzuffi *et al.*, 2017; Kerkvliet, 2006). After that, the 2013 Land Law complied with rights using 50 years for all types of agricultural land. Household beneficiaries receive a land-use rights certificate entitling them to exchange, transfer, inherit, lease, and

mortgage their land-use rights. Furthermore, Decree No 64/CP (1993) delineates specific regulations and procedures for land allocation. These policies facilitated the transition of agricultural land-use rights from collectives to individual households in the early 1990s, catalyzing rural economic advancement in Vietnam (Liu *et al.*, 2020; World Bank, 2016).

The land is distributed following the principle "almost, there are far, there are good" to assure justice that has engendered land fragmentation due to the equal distribution of land per capita (Markussen *et al.* 2016). According to the data, a household typically has between five and seven plots; in some places, that number can reach ten or twelve, which presents difficulties for agricultural production. Besides, the majority of agricultural households have a tiny agricultural land area. The group of families farming fields under 0.5 ha accounted for 69%, the group cultivating fields between 0.5-2 ha accounted for 25%, and the group cultivating fields more than 2 ha accounted for just 6% (General Statistics Office of Vietnam, 2017). According to World Bank (2016), with more than 76 million fragmented parcels, Vietnam's agriculture sector has witnessed a substantial decline in GDP, exacerbated by internal competition for

capital and labor amidst rapid urbanization. Land fragmentation, coupled with deficient rural infrastructure, hampers the effective utilization of agricultural technologies (Marsh and MacAulay 2002). Consequently, the Vietnamese government initiated agrarian transformations through land and labor reallocations, exemplified by Resolution 06 (1998) and Resolution No 26-NQ/TW (2008), collectively known as "Tam nong", emphasizing economies of scale at the farm level. Building on this framework, Vietnam has pursued land concentration under the national Land Reallocation Program, locally termed "Don dien doi thua" aimed at optimizing agricultural productivity and fostering rural development. The program garnered strong endorsement in numerous provinces across the northern and central regions, which grappled with severe land fragmentation.

However, the program encountered delays of several years due to budgetary constraints impeding the issuance of land-use rights certificates by the government (Ngo and Le 2020; Hoang and Ho 2015). Besides, up to now, there have been numerous studies on different aspects of agricultural land concentration. Some studies only have focused on separate fields of the concentration of agricultural land like

exchange or lease of agriculture land use rights (Thao *et al.*, 2015; Hieu, 2016; Huy and Peter, 2020; Dung, 2022b). Other studies have focused on the accumulation and concentration of agricultural land at the district or provincial level (Vien, 2017, 2022; Nam *et al.*, 2023). These studies have described the current status of this issue, but they have not comprehensively evaluated and updated the advantages, difficulties, and causes of implementing agricultural land accumulation in Vietnam. This study aims to generalize policies and laws on the concentration of agricultural land in Vietnam, evaluate the achievements and limitations when implementing the concentration of agricultural land, and thereby propose solutions to promote the concentration of agricultural land. It contributes to increasing the added value of agricultural products and creating sustainable livelihoods for farmers.

2. Materials and Methods

2.1. Primary data collection

The study employs a methodology centered around synthesizing and analyzing both documents and data. Document sources encompass a range of authoritative materials, including Resolutions of the Central Committee of Vietnam, Conclusions of the Politburo, the Land Law of the Vietnam

National Assembly, and Decrees issued by Vietnam's Government about the concentration of agricultural land. Meanwhile, data sources comprise information sourced from the General Statistics Office of Vietnam, reports issued by relevant ministries, and published scientific articles.

2.1. Data analysis

Within this analytical framework, we predominantly employ descriptive and comparative methodologies to extract meaningful insights and trends from the dataset. Descriptive methods allow us to characterize and summarize the data, providing a comprehensive overview of its key features and attributes. Meanwhile, comparative analysis enables us to juxtapose different elements of the dataset, facilitating the identification of similarities, differences, and patterns across various parameters. By leveraging these analytical approaches within the Excel environment, we aim to derive actionable conclusions and recommendations to inform decision-making processes. The insights and conclusions presented in the article stem from a rigorous analysis and evaluation of these collected data sources.

2.3. Expert method

To gain deeper insights into the complexities and limitations surrounding the concentration

of agricultural land, expert methods are also employed. These expert methodologies serve to complement the quantitative and qualitative data analysis, enriching the study's understanding of the subject matter and providing valuable perspectives for consideration. The expert methodology is utilized to gain insights into the challenges and barriers associated with agricultural land consolidation and to solicit opinions as a basis for proposing solutions to enhance such consolidation in the future. The research involves gathering opinions from 30 experts representing various research institutes, universities specializing in land and agriculture, the Ministry of Natural Resources and Environment, and the Departments of Agriculture and Rural Development in three provinces: Thai Nguyen, Thanh Hoa, and Binh Duong. These provinces are chosen to represent the Northern, Central, and Southern regions of Vietnam, respectively.

3. Results and discussion

3.1. Policies on the concentration of agricultural land

To improve agricultural production efficiency through appropriate production scale expansion, application of scientific and technological advances, and formation of specialized farming areas in the direction of

modern agricultural production, the Party's and the State's policy encourages the concentration of agricultural land and a breakthrough in raising the value and competitiveness of agricultural products. To lay the groundwork for agricultural land accumulation, the Party and State have released the following policies and laws:

As confirmed by the Resolution of the 11th Party Congress, the State encourages the concentration and accumulation of agricultural land for effective agricultural development by applying scientific and technological advancements, creating specialized farming areas that apply modern technology, and expanding appropriate production scale. Consistently, the 12th and 13th Congress documents of the Party stated that "We must quicken the agricultural sector's restructuring, create an ecological agriculture that moves toward modernity and sustainability through thorough development in forests, fisheries, and agriculture; continue updating the framework; eliminate fragmentation, provide an environment that attracts investment, and use mechanization and high-tech". It can be seen that the concentration of agricultural land is necessary to develop agricultural production. It also creates favorable conditions for implementing agricultural industrialization and modernization.

According to Resolution No. 26-NQ/TW of August 5, 2008, the Land Law must be changed in the following ways to aggressively reform procedures and policies to mobilize resources, accelerate the development of the rural economy, and enhance the material and spiritual well-being of farmers: "Continuing to proclaim that land belongs to the entire people and the State uniformly managing land according to land use master plans and plans; allocating land to households and individuals for long-term use; expanding land use quotas; promoting land accumulation; having a mechanism to encourage organizations and individuals to contribute as capital land use rights to establish companies, investment and business projects when land is recovered" (Central Committee of Vietnam, 2008). Subsequently, on October 31, 2012, Resolution No. 19-NQ/TW provided the orientation on how to proceed with updating and refining land-related policies and regulations: "To encourage farmers to feel more bonded to the land and confident enough to invest in production, agricultural land will continue to be allocated and leased to households and individuals for longer terms than those allowed by current legislation; expanding the quota for receiving transfers of agricultural land use rights at the same time, taking into account the unique circumstances of each

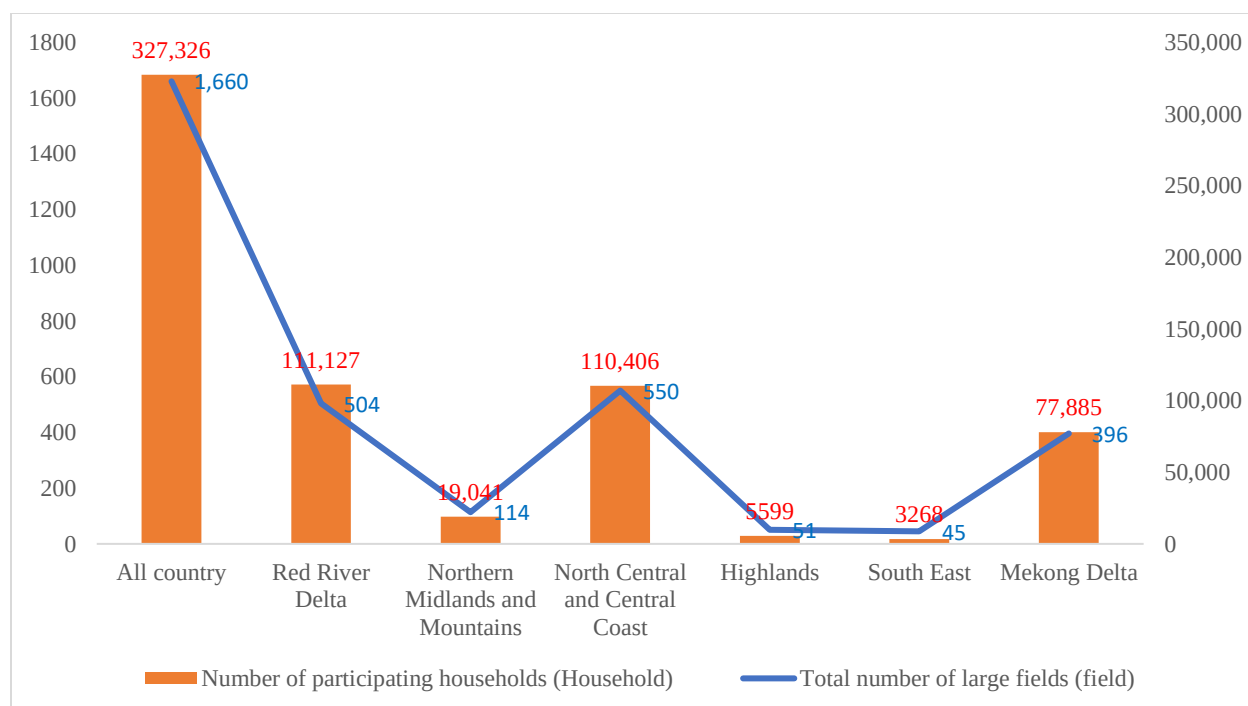


Figure 1. The number of large fields (General Statistics Office of Vietnam, 2021).

region and period, will help to foster the process of agricultural land accumulation and concentration, which will eventually lead to the formation of new major agricultural commodity production areas. There will soon be methods to meet the needs of ethnic minorities who lack employment and agricultural land” (Central Committee of Vietnam, 2012).

The Politburo's Conclusion No. 36-KL/TW dated September 6, 2018, outlines the task of expediting the implementation of Resolution No. 19-NQ/TW (October 31, 2012) “continuing to perfect mechanisms and policies for the management of agricultural land order to promote concentration and accumulation and carry out the agricultural

sector's restructuring”. “Implementing agricultural land accumulation and concentration to restructure the agricultural sector and develop intensive farming areas, specializing in large-scale, high-tech agriculture” is the task assigned by the Politburo in Resolution No. 39-NQ/TW (Central Committee of Vietnam, 2019). The Politburo's Resolution No. 54-NQ/TW of August 7, 2019, on continuing to implement the Resolution of the 7th Party Central Committee, term X on agriculture, farmers, and rural areas highlights “Strengthening land accumulation and concentration policies for large-scale, highly competitive agricultural production; implementing the conversion of inefficient rice-growing land to

other more effective crops and sub-types". The 13th National Congress of the Party (2021) approves the development strategy of society - economy for the period (2021-2030), which states "Strengthening the restructuring of agriculture; exploiting, and bringing the advantages of tropical agriculture; developing concentrated and large-scale commodity agriculture moving toward modernism and focusing on premium commodities farming"

The Fifth Plenum of the 13th CPV Central Committee on agriculture, farmers, rural areas to 2030, vision to 2045, set out the tasks and solutions for developing an efficient and sustainable agriculture: "Promoting accumulation and concentration of agricultural land; modernizing the agriculture production; specializing in large-scale and concentrated commodity agriculture production, applying of advanced science and technology, digital transformation, mechanization and automation; closely linking production with preservation, processing and consumption...". Furthermore, the Resolution No. 19-NQ/TW issues tasks and solutions to enhance agricultural institutions and policies in the direction of "Continuing to improve policies and laws on agriculture, farmers, and rural areas; amending and supplementing land policies and laws for sustainable agricultural

land use; promoting the accumulation, concentration, and flexible and efficient use of rice land; overcoming the situation of abandonment and land degradation". (Central Committee of Vietnam, 2022a). Resolution No. 18-NQ/TW issues tasks and solutions "It is necessary to have policies for the development of the land use rights market, particularly the agricultural land leasing market; increasing the subjects and quotas for agricultural land use rights while converting jobs, labor, and occupations in rural areas under the unique features and circumstances of each region and place; establishing suitable circumstances to allow agricultural land users to change land use purpose, and increase agricultural land use efficiency following planning; improving soil quality management and overcoming land degradation and deterioration; creating guidelines for banks leasing agricultural land" (Central Committee of Vietnam, 2022b).

To institutionalize policies on the concentration of agricultural land, the State has issued legal regulations for practical implementation of the specific guidelines. Directive No. 10/1998/CT-TTg encourages farmer households to exchange land to reduce dispersion and fragmentation (Prime Minister of Vietnam, 1998). Subsequently, the Land law regulates forms of the

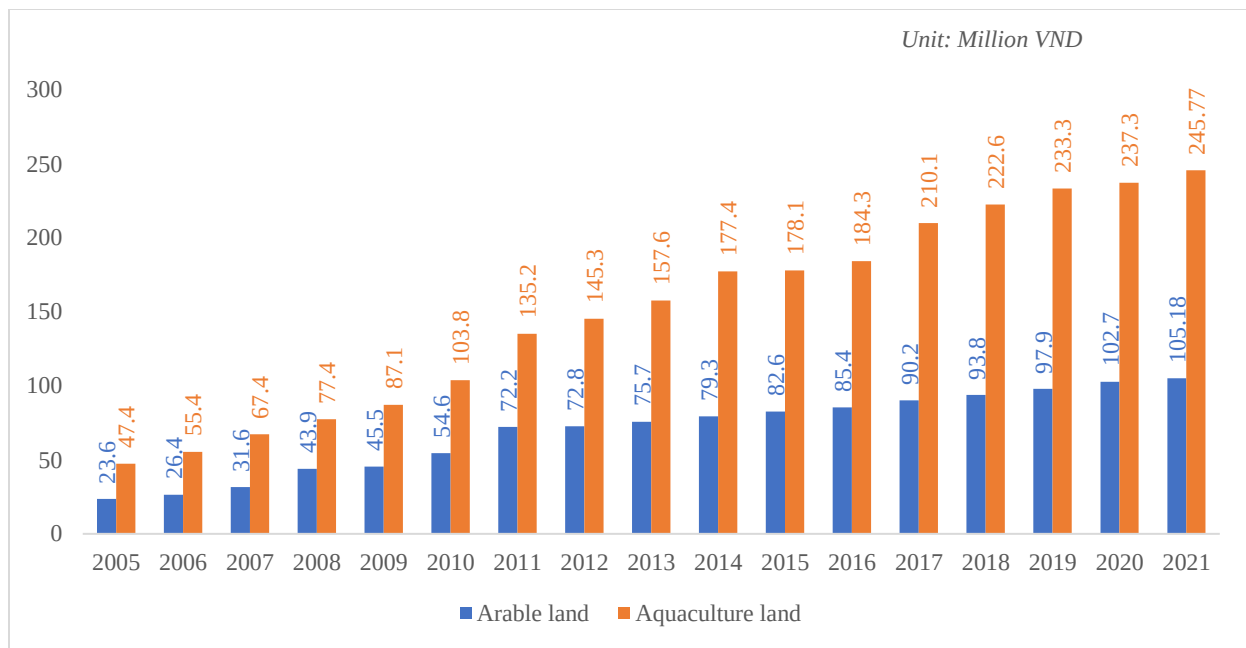


Figure 2. Production value of arable land and aquaculture (General Statistics Office of Vietnam, 2021).

concentration of agricultural land through land user right transfer methods such as conversion, lease, and sublease of land use rights (The National Assembly of Viet Nam, 1993; The National Assembly of Viet Nam, 2003; The National Assembly of Viet Nam, 2013). The 2004 land law will go into effect on January 1, 2025, which more precisely regulates the concentration of agricultural land. Article 192 stipulates that “the concentration of agricultural land is the increase in agricultural land area to organize production through the following methods: exchange of agricultural land use rights according to the form of consolidation and swap of agricultural land parcels, lease land use rights, and cooperation as rights to land usage in business and production. The State

has policies to encourage organizations and individuals to concentrate land for agricultural production; and apply science and technology to economically and effectively use the concentrated land fund. The state budget provides funding for land measurement, cadastral record adjustments, certificates of land use rights, and other land-attached assets to conduct consolidation and swap of agricultural land parcels. Individuals and businesses that concentrate on agricultural land are required to create land use plans and submit them for oversight to the People’s Committee at the commune level. If the land use plan modifies the agricultural land group’s land use purpose, the land user and the land consolidation participant must agree on the return of

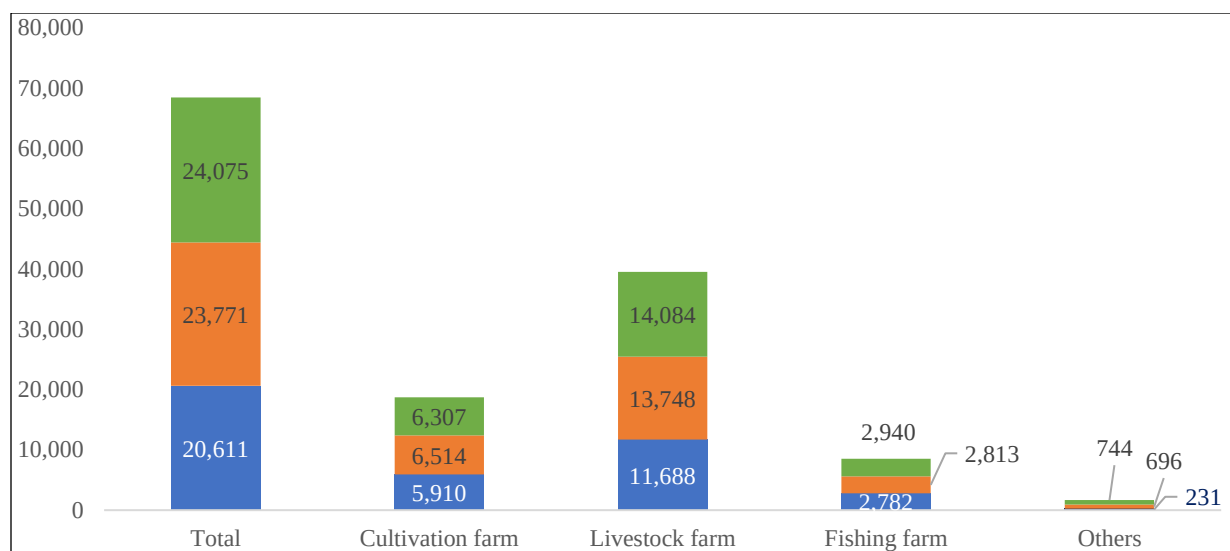


Figure 3. Number of agriculture farms (General Statistics Office of Vietnam, 2021).

agricultural land. In cases where agricultural land is concentrated and land use rights must be adjusted, the provisions in Article 219 of this Law shall be implemented” (Government of Vietnam, 2024).

The current Land Law (2013) states the exchange of agricultural land use rights can only be done with households and individuals directly involved in agricultural production in the same commune-level administrative unit and it is amended for the same provincial administrative unit according to the 2024 Land Law (effective January 1, 2025). This regulation makes it easier for families and individuals to invest in agricultural development in the area of the provincial administrative unit of their choice. For cooperation as rights to land usage in business and production, Decision No. 80/2002/QĐ-TTg (Prime Minister of Viet

Nam, 2002) states “To link production with processing and consumption of agricultural products and develop stable and sustainable production, the State encourages businesses of all economic sectors to enter into contracts with producers (cooperatives, farmer households, farms, and representatives of farmer households) for the consumption of agricultural products (including agricultural products, forestry products, and aquatic products) and salt. Farmer households can use the value of land use rights to contribute capital, join ventures, associate with businesses, or lease land to businesses. Following that, farmers can cultivate on land to which they have contributed shares, partnerships, joint ventures, or leases, and then resale agricultural products to companies, establishing a long-lasting relationship between farmers and

companies”. Decision No. 62/2013/QĐ-TTg encourages the development of cooperation and linking production associated with agricultural product consumption, and the construction of larger fields (Prime Minister of Viet Nam, 2013). The regulations on cooperation as rights to land usage in business and production are amended by Decree No. 98/2018/ND-CP (Government of Vietnam, 2018).

In summary, the State has stated the specific policies and laws to implement the concentration of agricultural land. All these policies and laws are an important foundation for promulgating legal regulations on agricultural land accumulation, which aim to expand production, apply high technology to production, improve product quality, and limit environmental impacts.

3.2. Achievement of the concentration of agricultural land

The concentration of agricultural land has achieved remarkable results. According to the results of the mid-term rural and agricultural survey in 2020, the whole country as a whole has 2,799 commune-level administrative units implementing consolidation and swap of agricultural land parcels with an area of 790,000 hectares. The Red River Delta has the highest number of commune-level administrative units and areas for consolidation and swap of

agricultural land parcels, respectively 1,374 communes and 426,600 ha. The Southeast region has the lowest number of commune-level administrative units implementing consolidation and swap of agricultural land parcels (11 communes), and the Central Highlands has the least area of consolidation and swap of agricultural land parcels (400 hectares) (General Statistics Office of Vietnam, 2021).

The concentration of agricultural land in the form of cooperation as rights to land usage in business and production to create large fields that were first piloted in the summer-autumn crop of 2011 in the Mekong Delta and Tay Ninh province with a combined area of more than 7,800 hectares and 6,400 participating farmers. This model was once considered one of the effective solutions to restructure the rice industry and many other agricultural product industries in the early 2010s. Decision No. 62/2013/QĐ-TTg encourages cooperation and linking among farmers, organizations that represent farmers (cooperative unions and cooperatives), and enterprises in the production and consumption of agricultural products, and building large fields. According to the results of the mid-term rural and agricultural survey in 2020, there were 1,660 large fields in 1,051 communes as of July 2020 nationwide. It attracted 327,326 households to participate.

The number of large fields in the North Central and Central Coast region is the largest with 550 fields (Figure 1). The "Large Sample Field" model is essentially a combination of "4 houses" including the State, scientists, businesspeople, and farmers engaged in agricultural production. Following its role and obligation, the State has developed extensive sample fields linked to rice production by VietGap standards by constructing strategies, regulatory mechanisms, and legislative corridors. It also helps farmers use scientific and technological advancements to produce high-quality, concentrated agricultural products in large quantities, which helps to stabilize farmers' livelihoods and increase income. Lease of agricultural land rights is carried out in two forms: leasing and subleasing land use rights. Lease of land use rights is understood as the State's decision to grant land use rights to subjects who need to use land through a lease contract of land use rights. Sublease of land use rights is a form of household, individual, or organization subleasing the use rights of an object allocated or leased land by the State for production. There are several benefits to leasing agricultural land use rights for concentration purposes, including the absence of quotas, lower land rent payments compared to transferring land use rights, and preservation of land use rights for farmers.

Leasing land from farmers for production purposes is a common business model that has been growing in popularity in recent years. In 2021, there were 49,600 businesses renting land, an increase of 47,031 businesses compared to 2011 (Dung, 2022a). Research by Marsh *et al.* (2000) showed that there were clear differences between the Northern and Southern provinces for both rental and subleasing markets. The market in the North is often more vibrant than the market in the South. In the South, land use rights are more often sold or mortgaged than rented.

The policy of the concentration of agricultural land has liberated labor and promoted the development of agricultural commodity markets. During the period 2005-2021, Vietnam's agricultural production has made strong developments. The production value of arable land and aquaculture land is consistently rising, which reached 105.18 million VND and 245.77 million VND/ha, respectively, in 2021. In contrast with 2005, the production value of cropland increased by 81.58 million VND/ha (up 345.68%) and aquaculture land increased by 198.37% (up 418.50%). The agricultural labor productivity increased significantly between 2005 and 2021. It increased by 67.18 million VND from 2005 to 74.68 million VND in 2021 (General Statistics Office of Vietnam, 2023).

Numerous studies have demonstrated that agricultural land accumulation and concentration have a favorable effect on the components that make up the production value. According to Monke *et al.* (1992), land consolidation can increase both the productivity of the land and all factors together if it stimulates and advances technological advancement and expands scale economies. The study by Wu *et al.* (2005) showed land consolidation has been cost-effective and has directly increased household crop production productivity, adding 1.52% to crop yield (Wu *et al.*, 2005). Other studies have indicated that it can boost labor productivity (Bonner, 1987). In comparison to other ASEAN nations, Vietnam's agricultural labor productivity has increased considerably in recent years, yet, it is still roughly 12 times less than that of Malaysia, Thailand 2.1 times, and the Philippines 1.8 times (Quynh and Thu, 2021). The primary causes are that rural infrastructure and facilities do not meet the demands of large-scale commodity production, our nation's agriculture has a very low starting point, and laborers in the agricultural sectors make up a sizable share of the workforce employed in the economy.

The concentration of agricultural land fosters the reorganization of production related to

labor redistribution in rural and agricultural areas. The three primary production forms for agriculture, forestry, and fisheries are households, cooperatives, and companies. The mid-term agricultural and rural survey data from 2020 show that there are 9,123,018 agricultural, forestry, and fishing production units nationwide, a decrease of 1.82% from 2016. Out of which, the production of 9,108,129 households decreased by 1.86%; 7,418 cooperatives increased by 6.80%; and 7,471 enterprises increased by 94.25. In recent years, production forms have changed in scale and production organization methods. For households, the average area of a plot increased from 1,843.1 m² to 2,026.3 m². A production organization model based on farm scale is being developed more and more. The number of farms in the nation reached 24,0751 by the end of 2022, up 3,464 from 2020. Livestock farms make up the greatest percentage of them all (58.50%) (Figure 3). There are 4.3 employees on average on each farm (General Statistics Office of Vietnam, 2021). Farm economics plays a significant role in the efficient use and exploitation of agricultural land, boosting revenue and enhancing the standard of living for many farming households. Based on statistical data, the average monthly salary of farm laborers in 2020 is expected to be 4.9 million VND (Nguyen Thi Mai Hien,

2021), which is greater than the average monthly income of rural areas, which is 1.4 million VND (General Statistics Office of Vietnam, 2023).

3.3. Difficulties and obstacles when implementing the concentration of agricultural land

Farmers' capacity for the concentration of agricultural land is limited by the present Land Law, which stipulates that consolidation and swapping of agricultural land parcels is only permitted for households and persons actively involved in agricultural production within the same commune-level administrative entity. Procedures for consolidation and swapping of agricultural land parcels are complicated and unfavorable. The land change registration process is cumbersome and the issuance and renewal of land use rights certificates is not done quickly. Consolidation and swapping of agricultural land parcels in Northern Midlands, and Mountains has not achieved the desired results because the expense of planning and leveling is high. This region's land features are minor and dispersed and its landscape is broken up and rough.

Current regulations provide that land assigned to households and individuals directly involved in agricultural production is valid for 50 years, and that land owned by a

public land fund overseen by the People's Committee at the commune level may be leased for a maximum of five years. Many households and individuals claim that these restrictions still do not provide them the confidence to feel comfortable in applying high-tech agriculture production techniques and investments. Land can often be leased for less than five years, especially for households and people renting public land. Agricultural land accumulation is sluggish since the market for leasing agricultural land use rights is still in its infancy, opaque, and unappealing. The rate of households leasing agricultural land is only 10 - 15% (Dung, 2022b). Besides, many households have a land-holding mentality rather than as something to lease to companies. The challenge facing businesses and organizations renting property nowadays is the necessity to mobilize and negotiate with people particularly when a significant area of land is required and hundreds or thousands of households need to be mobilized and negotiated with. There have been cases where households have land spread among the land leased by the enterprise, supported by cooperatives, local authorities, and enterprises (including trading for households an equivalent land area in the same place) but determined not to rent it to the business. Consequently, there are instances in which

companies are unable to complete agricultural production initiatives.

The concentration of agricultural land in the form of cooperation as rights to land usage in business and production to create large fields still faces several challenges as a result of the lack of a distinct policy that would support consistent production and encourage households, businesses, and cooperatives to build large-scale concentrated farms. The complicated administrative processes involved in implementing investment projects, the relatively stringent requirements on eligibility for policy benefits, and other obstacles make it difficult to entice corporations to engage in agriculture. Regulating the fields and places where policies are implemented that are both specific and do not guarantee the development of value chains and specialized farming areas, which should be given priority based on the potential and advantages of each location. Large project-scale regulations are inaccessible to small companies or enterprises. It is challenging to access budget sources, and payments are still made very slowly. According to the State Bank, as of the end of April 2022, outstanding loans to the agricultural and rural sector reached nearly 2.8 million billion VND with more than 14 million customers, accounting for nearly 25% of the economy's total

outstanding credit balance (Ha, 2022). Furthermore, the level of agricultural subsidies is still low, making it unappealing for them to make risky investments in the field. The OECD's figures show that the amount of agricultural support in our nation is currently only 7%. This is mostly due to the agricultural extension system and fee reductions. At that time, the support level was between 55 and 60 percent in a few other nations, namely Korea and Japan (Nga, 2021).

Infrastructure has fallen short of the demands of changing the way agriculture is produced and utilizing science and technology in the production, processing, and storage of agricultural goods. It is particularly challenging to obtain and apply research to agricultural activities because of the extremely limited and deficient connectivity and information infrastructure in agriculture and rural areas. Additionally, you need to spend money building net houses, greenhouses, and contemporary barns with accommodations for caregivers if you wish to raise cattle and grow crops using cutting-edge technologies. Nonetheless, there are still significant obstacles in the way of requesting approval to construct projects supporting high-tech livestock and crop production on agricultural property.

It is also unsuccessful in solving employment issues after the concentration of agricultural land process. Mechanization has reduced the number of workers engaged in agricultural production, making it more difficult to move land from farmers to other sectors. It has not been successful in creating jobs for workers leaving the agriculture sector. There has been little progress in applying science and technology to agricultural production, which has resulted in stagnant income and economic efficiency. Although some provinces have policies in place to encourage the concentration of agricultural land, payments to households and individuals who have done so are still implemented slowly, and the procedures are convoluted. These individuals must also wait a long period for the assessment of their support level. As a result, land users are not encouraged to concentrate on agricultural land, and the policy's effectiveness is low.

3.4. Solution for the concentration of agricultural land

It is necessary to change and complete policies, and laws to encourage households, individuals, businesses, and cooperatives to concentrate agricultural land. The State must perfect the voluntary land transfer mechanism and finish the land fund development model to create an agricultural land fund for the development of large-scale

agricultural production, high-tech agriculture, organic agriculture, and ecological agriculture. This will allow businesses to easily access land by leasing land use rights. Land policies and laws also need to shorten the time for registering land changes and granting land use rights certificates when carrying out consolidation and swapping of agricultural land parcels. It is necessary to add regulations to recover agricultural land that is used ineffectively or with low efficiency to allocate to other subjects who need to expand production and apply high technology. Complete the risk insurance policy for households and individuals who participate in business collaboration and production at the same time. The state also needs to specifically stipulate policies on access to capital and support policies in agricultural production. The State also must keep enhancing institutions, reorganize administrative practices, and drastically lower obstacles to agricultural business to establish the conditions necessary for small and medium-sized businesses to obtain incentives for investment in agricultural development.

Plan out and carry out focused production zones and specialized farming areas. Accelerate agricultural production planning based on market demand and each region's advantages. Enhancing the caliber of

production scheduling and administration is essential. To promote both regional and product advantages, review, modify, and add to agricultural production planning (cultivation, animal husbandry, and aquaculture). Examine and closely monitor agricultural land use plans, as well as land designated for the production of important export goods, livestock, and aquaculture.

Promote the development of the agricultural enterprise system, and encourage businesses to invest in high-tech agricultural zones and places. Emphasize the development of production connections along the value chain that are connected to the processing and consumption of agricultural products. To strengthen the position of enterprises in the agricultural value chain, they must serve as the primary link between farmer households, cooperatives, and the market in contemporary agriculture. Encourage enterprises to make investments in the growth of raw material regions, and make sure that products are processed and consumed by farmer households and cooperatives. To guarantee services to farmers, the state needs to take up managerial, regulatory, and directing responsibilities.

Ensure capital sources to implement the concentration of agricultural land. To overcome the lack of funding when

implementing consolidation and swapping of agricultural land parcels, before redistributing fields, it is necessary to issue policies to attract different sources of capital outside the state budget such as investment capital from businesses and sponsorship capital of domestic and foreign organizations. In addition, it is necessary to apply preferential credit policies to carry out the concentration of agricultural land and invest in equipment and machinery for the production and post-harvest processing of agricultural products to increase product value.

It is necessary to ensure sufficient human resources in quantity and quality to carry out the concentration of agricultural land. For officials and civil servants, it is necessary to ensure a sufficient number with good professional qualifications, training, and fostering knowledge related to land concentration. For enterprises and cooperatives, it is necessary to be trained in knowledge about agricultural markets. For farmers, it is also necessary to improve farmers education, professional qualifications, professional skills, production, and business management.

Complete rural infrastructure, with a focus on in-field irrigation, electricity generation, and transportation networks to create concentrated, specialized zones for the

production of commodities linked to the processing industry. Furthermore, it is imperative to give top priority to the implementation of Industry 4.0 technologies, particularly those that support digital transformation in agriculture at critical junctures like traceability, trading, and agricultural product consumption, among others. Utilize scientific and technological advancements through research, transfer, and application to raise agricultural output and product quality.

4. Conclusion

Vietnam's agricultural development is significantly influenced by the concentration of agricultural land. The State has released policies to support and encourage the concentration of agricultural land concentration. The concentration of agricultural land has decreased land fragmentation, opened up sizable areas, and created create favorable conditions for applying science and technology. It also has improved the production value and productivity of labor in agriculture. However, the concentration of agricultural land is facing difficulties and obstacles such as capital shortage, restriction policy, and outdated infrastructure. To encourage the concentration of agricultural land, it is required to simultaneously execute solutions as follows: complete policies to encourage

the concentration of agricultural land; plan out and carry out focused production zones and specialized farming areas; ensure capital sources; ensure sufficient human resources; and complete rural infrastructure.

Acknowledgment

I extend my heartfelt thanks to all authors who contributed to the success of this article through their invaluable assistance and guidance.

References

- Bonner, J.P. 1987. Land consolidation and productivity in Chinese household crop production. Riverdale, Md., U.S.A. : Riverdale Co.
- Cazzuffi, C., McKay, A. and Perge, E. 2017. Commercialization in agriculture, 2006–2014. In Growth, structural transformation and rural change in Viet Nam: A rising dragon on the move, ed. F. Tarp, 68–91. New York: Oxford University Press.
- Central Committee of Vietnam. 2008. Resolution No 26-NQ/TW on August 5, 2008 of the seventh conference of the Central Executive Committee, term X on agriculture, farmer, and rural.
- Central Committee of Vietnam. 2012. Resolution No 19-NQ/TW on October 31, 2012 of the fifth plenum of the 11th CPV Central Committee on continuing to innovate policies and laws on land during the period of comprehensively promoting the reform process, creating a foundation for our country to basically become a modern industrialized country by 2020.
- Central Committee of Vietnam. 2019. Resolution No 39-NQ/TW dated January 15, 2019 of the Politburo on improving the efficiency of management,

- exploitation, use and promotion of the economy's resources.
- Central Committee of Vietnam. 2022a. Resolution No 19-NQ/TW on June 16, 2022 of the fifth plenum of the 13th CPV Central Committee on Agriculture, Farmers, Rural to 2030, vision to 2045.
- Central Committee of Vietnam. 2022b. Resolution No 18-NQ/TW on June 16, 2022 of the fifth plenum of the 13th CPV Central Committee on ongoing innovation and improvement in regulatory institutions and policies; enhancement of efficiency and effectiveness in management and use of land, serving as the driving force in developing our country into a high-income economy.
- Dung, P.V. 2022a. Removing difficulties and obstacles for the rental market of agricultural land use rights developing (part 3). Access on 10/02/2024 at <https://lao.tapchiconsan.org.vn/kinh-te/-/2018/825773/thao-go-kho-khan%2C-vuong-mac-cho-thi-truong--cho-thue-quyen-su-dung-dat-nong-nghiep-phat-trien-%28ky-3%29.aspx>.
- Dung, P.V. 2022b. Leasing agricultural land use rights: View from the practice of Ha Nam province (part 2). Access on 15/12/2023 at <https://tapchiconsan.org.vn/kinh-te/-/2018/825763/cho-thue-quyen-su-dung-dat-nong-nghiep--nhin-tu-thuc-tien-tinh-ha-nam-%28ky-2%29.aspx>.
- General Statistics Offices of Vietnam (GSO). 2016. *Results of rural, agricultural and fishery census 2016*. Hanoi: Statistical Publishing House. <https://www.gso.gov.vn/en/data-and-statistics/2019/03/result-of-rural-agricultural-and-fishery-census-2016/>.
- General Statistics Office of Vietnam. 2017. Results of the 2016 agricultural and rural census.
- General Statistics Office of Vietnam. 2021. Result of mid-term rural and agriculture survey 2020. Statistical Publishing House.
- General Statistics Office of Vietnam. 2023. Health, living standards, culture, sports, social safety and environment. Access on 15/11/2023 <https://www.gso.gov.vn/y-te-muc-song-dan-cu-van-hoa-the-thao-trat-tu-an-toan-xa-hoi-va-moi-truong/>.
- Government of Vietnam. 2018. Decree No. 98/2018/ND-CP of July 5, 2018 of the Government on policies to encourage the development of cooperation and association in the production and consumption of agricultural products.
- Ha, P.M. 2022. Prioritize and remove capital difficulties for the agricultural and rural sectors, contributing to preventing 'black credit'. *Financial Journal*.
- Hieu, D. 2016. Promote linkages and build large fields in the Mekong Delta. Access on 15/01/2024 at <https://dangcongsan.vn/kinh-te/thuc-day-lien-ket-xay-dung-canh-dong-lon-o-dong-bang-song-cuu-long-417866.html>.
- Hoang, X. P. and Ho, T. L. T. 2015. The solution of agricultural land consolidation in Vietnam. Hanoi: Agricultural Publisher.
- Huy, Q. N. and Peter, W. 2020. Land consolidation as technical change: Economic impacts in rural Vietnam. *World Development*. 127. 104750. <https://doi.org/10.1016/j.worlddev.2019.104750>.
- Kerkvliet, B. T. 2006. Agricultural land in Vietnam: Markets tempered by family, community and socialist practices. *Journal of Agrarian Change*. 6F: 285–305.
- Le, M.H & Carolyn, T. 2021. Vietnam's agriculture: from local to global mindset. *VietNamNet News*. <https://vietnamnet.vn/en/vietnams-agriculture-from-local-to-global-mindset-798163.html>.

- Liu, Y., Barrett, C. B., Pham, T. & Violette, W. 2020. The intertemporal evolution of agriculture and labor over a rapid structural transformation: Lessons from Vietnam. *Food Policy*. 94: 101-113.
- Markussen, T., Tarp, F., Do, H. T. and Nguyen, D. A. T. 2016. *Inter and Intra-farm land fragmentation in Vietnam*. Working Paper. Hanoi: Central Institute of Economic Management.
- Marsh, S. P. and MacAulay, T. G. 2002. Land reform and the development of commercial agriculture in Vietnam: Policy and issues. *Australasian Agribusiness Review* 10: 1–19.
- Marsh, S.P., MacAulay, TG & Pham, VH. 2007. Agricultural development and land policy in Vietnam. Australian Center for International Agricultural Research (ACIAR), University of Sydney and University of Agriculture I - Hanoi.
- Monke, E., Avillez, F. & FERRO, M. 1992. Consolidation policies and small-farm agriculture in northwest Portugal. *European Review of Agricultural Economics*. 19(1):67–83.
- Nam, P. P. , Hanh, B. N. Huyen, P. T. T, Anh, N. L. T, Duong, T. N. 2023. Accumulation and Concentration of Agricultural Land: A Case Study in Gia Binh District, Bac Ninh Province, Vietnam. *International Journal of Research and Innovation in Social Science*. 7 (7): 761-776
- Nga, D.T. 2021. Current status and solutions for developing agricultural enterprises in Vietnam. Access on 10/02/2024 at <https://iasvn.org/homepage/Thuc-trang-va-giai-phap-phat-trien-doanh-nghiep-nong-nghiep-o-Viet-Nam-14655.html>.
- Ngo, T. T. and Le, T. P. 2020. *Tích tụ, tập trung đất đai ở Việt Nam-Lý luận và pháp luật hiện hành. (Land accumulation and concentration in Vietnam: Land law and legal documents)*. Hanoi: Thanh Nien publisher.
- Hien, N.T.M. 2021. Challenges of farm economic development. Access on 10/12/2023 at <https://nongnghiep.vn/thach-thuc-cua-phat-trien-kinh-te-trang-trai-nhin-tu-goc-do-phap-luat-d353996.html>.
- Otsuka, K. 2013. Food insecurity, income inequality, and the changing comparative advantage in world agriculture. *Agricultural Economics*. 44(s1):7–18.
- Politburo of Vietnam. 1988. Resolution 10-NQ/TW dated on April 5, 1988 on agricultural economic management innovation.
- Prime Minister of Viet Nam. 2002. Decision No. 80/2002/QĐ-TTg of June 24, 2002 on strategies to stimulate consumption of agricultural goods and commodities through contracts.
- Prime Minister of Viet Nam. 2013. Decision 62/2013/QĐ-TTg of October 25, 2013 on support the growth of collaboration, production associations related with agricultural product consumption, and the construction of big fields.
- Prime Minister of Vietnam. 1998. Directive No. 10/1998/CT-TTg dated February 20, 1998 on promoting and completing land allocation and granting certificates of agricultural land use rights.
- Quynh, Đ.H & Thu, T.T. 2021. Opportunities and challenges for increasing labor productivity in the digital economy. *Financial Journal*. (8):57-60.
- Thao, X. T. T, Nam, P. P, Tra , H. T. L (2015). Result of exchange of agriculture land use rights in Nam Dinh province. *Journal of Science and Development*. 13 (6): 931-942.
- The National Assembly of Viet Nam. 1993. The Land Law 1993. National Political publisher of Vietnam.
- The National Assembly of Viet Nam. 2003. The Land Law 2003. National Political publisher of Vietnam.

- The National Assembly of Viet Nam. 2013. The Land Law 2013. National Political publisher of Vietnam.
- The National Assembly of Viet Nam. 2024. The Land Law 2024. Publisher of Natural Resource - Environment and map of Vietnam.
- Vien, T. D. 2017. Land accumulation and high-tech agricultural development: Policy implications. Access on 02/02/2024 at <https://tiasang.com.vn/dien-dan/tich-tu-ruong-dat-va-phat-trien-nong-nghiep-cnc-khuyen-nghi-chinh-sach-10689/>.
- Vien, T. D. 2022. Report of project results of inventory and assessment of land consolidation pilots and projects in Vietnam.
- Wegren, S. & Elvestad C. 2018. Russia's food self-sufficiency and food security: an assessment. *Post-Communist Economies*. 1–23.
- World Bank. 2016. *Transforming Vietnamese agriculture: Gaining more from less*. Washington, DC: The World Bank.
- Wu, Z., Liu, M. & Davis, J. 2005. Land consolidation and productivity in Chinese household crop production. *China Economic Review*. 16(1):28–49.