



ACCUMULATION AND CONCENTRATION OF AGRICULTURAL LAND IN VIETNAM: POLICY IMPLICATIONS FOR SUSTAINABLE AGRICULTURAL DEVELOPMENT

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ABSTRACT

Farmland fragmentation continues to hinder Vietnam's agricultural modernisation by constraining scale, mechanisation, and competitiveness. This study examines how key mechanisms: Land transfer, leasing, land consolidation, and large-field cooperation, have operated under the evolving framework of the 2024 Land Law. Combining official statistics (2010–2023) with thirty expert interviews, the analysis reveals that large-field models have been the most dynamic pathway, while transfer and leasing remain limited and consolidation progresses unevenly across regions. Statistical evidence confirms that regional disparities, institutional restrictions, and socio-psychological reluctance to release land persist as critical barriers. Building on these findings, the study proposes eight policy directions, including reforming land-use quotas, extending secure tenure, strengthening financial and insurance instruments, discouraging idle land through taxation, and linking consolidation with employment and value chain development. These measures aim to transform land accumulation into a foundation for sustainable, market-oriented, and socially inclusive agricultural growth.

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Introduction

Agriculture continues to play a central role in Vietnam's rural economy, providing employment for roughly 85% of rural labour and securing the livelihoods of more than 65% of the national population (General Statistics Office of Vietnam, 2017). The sector has also demonstrated resilience in periods of crisis; for instance, during the COVID-19 pandemic, it maintained a growth rate of 2.88% and thereby supported overall economic stability (General Statistics Office of Vietnam, 2022a). Despite these contributions, agricultural development remains constrained by outdated production systems, fragmented farming structures, and limited adoption of advanced technologies. Labour productivity in Vietnamese agriculture is still significantly lower than that of neighbouring ASEAN countries, estimated at 12

times lower than Malaysia and about half that of Thailand and the Philippines (Quynh & Thu, 2021). Land fragmentation further compounds these challenges by undermining efficiency and increasing production costs (FAO, 2003).

Household-level statistics illustrate the persistence of small-scale farming: Nearly 70% of households cultivate less than 0.5 hectares, about one-quarter manage between 0.5 and 2 hectares, and only a small minority farm areas larger than 2 hectares (General Statistics Office of Vietnam, 2017). Such fragmentation restricts the application of mechanisation, raises transaction costs, and reduces competitiveness. Scholars have shown that dispersed plots require more time and labour for basic operations (Bentley, 1987; Otsuka, 2013) and increase

labour costs (Blarel *et al.*, 1992). As a result, production efficiency and farm incomes remain low. Comparative research highlights that the consolidation of farmland through accumulation and concentration has enhanced rural development and productivity in many parts of Europe, Asia, and Africa (Van Dijk, 2003; Tan *et al.*, 2006; Pašakarnis & Maliene, 2010; Demetriou *et al.*, 2012; Zhang *et al.*, 2014).

In Vietnam, policies addressing farmland size emerged after the Doi Moi reforms in 1986 and the enactment of the 1993 Land Law, which allocated agricultural land-use rights to households. These reforms were instrumental in enabling Vietnam to become a leading rice exporter. At the same time, the egalitarian distribution principle: Allocating land parcels of varying distance and quality to ensure fairness, reinforced fragmentation that still characterises the rural landscape (Huyen *et al.*, 2024). Previous studies in Vietnam have examined the subject from different perspectives. Some explored the role of advanced technologies in supporting land concentration (Ngoc Anh, 2020; Vien, 2017). Others analysed theoretical bases for commodity-oriented agriculture (Chung, 2018) or investigated regional patterns with corresponding policy suggestions (Duc & Son, 2021; Dung, 2010; Nguyen *et al.*, 2020). Although these contributions are valuable, they remain fragmented and often limited to conceptual debates or localised case studies. A systematic evaluation of the mechanisms of land accumulation and concentration within the new framework of the 2024 Land Law is still lacking.

This study seeks to fill this gap by examining how mechanisms such as land transfer, leasing, consolidation, capital contribution, and large-field models have been implemented in Vietnam, and by identifying the policy and institutional constraints that undermine their effectiveness. In contrast to prior studies that remain largely descriptive or regionally focused, this study combines secondary statistical data with expert interview evidence to provide a more comprehensive account of both achievements and persistent barriers. Based on this analysis,

the study develops policy directions to enhance land accumulation efficiency while supporting the broader objectives of sustainable agricultural development.

Accordingly, the research is guided by two central questions: (i) What limitations within current land policies restrict the effectiveness of land accumulation and concentration, and (ii) what policy interventions are required to strengthen these processes to support sustainable agricultural development?

Methodological Approach

The literature on the accumulation and concentration of agricultural land was identified through official documents from government agencies and journal articles from electronic databases such as Web of Science, Oxford University Press, Elsevier, ScienceDirect, and Taylor & Francis. In addition to scholarly sources, official descriptive statistics were collected from the General Statistics Office of Vietnam (GSO), the Ministry of Agriculture and Rural Development (MARD), and selected provincial reports for the period 2010–2023. These data include indicators on land transfer, leasing, land consolidation, and large-field models, which provide an empirical basis for illustrating the evolution of different mechanisms of land accumulation and concentration. Research articles, academic writings, and policy reports were also used to support the analysis.

The analysis combined both quantitative descriptive information and qualitative assessments. Quantitative indicators were employed to highlight trends and the scale of land accumulation processes, while qualitative evidence was used to explain institutional constraints and policy contexts. To complement this, the study employed the expert method by conducting direct interviews with thirty individuals knowledgeable in land, agricultural, and rural policies. These experts were affiliated with research institutes, universities, the Ministry of Natural Resources and Environment, and the Ministry of Agriculture and Rural Development.

(the two ministries, the Ministry of Agriculture and Rural Development and the Ministry of Natural Resources and Environment, have been merged into the Ministry of Agriculture and Environment and officially commenced operations on 1 March 2025). The interview questions focused on the difficulties and constraints in the accumulation and concentration of agricultural land, the underlying causes of these challenges, and the policy implications for promoting land accumulation and concentration to support large-scale, more efficient agricultural production.

Results

Transfer of Land Use Rights

According to the General Department of Land Management (2022), the rate of granting certificates of agricultural land use rights at the end of 2021 reached 93%, a favourable condition for the accumulation and concentration of agricultural land. Vietnam's land use rights market began operations on 15 October 1993, when the 1993 Land Law came into force. This was the first step in the accumulation of agricultural land. The 2013 Land Law allows investors to obtain land use rights without any quota limit. The term of agricultural land use has been increased from 20 years under the Land Law 2003 to 50 years, creating a legal corridor for the accumulation and concentration of agricultural land.

In practice, there are still relatively few transactions involving the transfer of agricultural land use rights. The 2014 household living standard survey revealed that only 12% of agricultural land funds originated from receiving transfers of land use rights, 34% from inheriting land use rights, and 40% from allocating land without a land use levy, and the remaining area originated from reclamation or other sources (Chung, 2018). Regional heterogeneity is marked: In the South, 39% of land was purchased and only 3% allotted by the State; in the Red River Delta, fewer than 1% of households purchased land-use rights, compared

with more than 34% in the Mekong Delta (Tran *et al.*, 2013). These patterns indicate that the transfer mechanism contributes unevenly to consolidation across regions.

The 2013 Land Law and its policies stipulate that households and individuals receiving paddy land use rights as a donation must provide proof that they are directly involved in agricultural production and that their income originates from agriculture in the local area; economic organisations are not permitted to obtain the rights to utilise paddy land, protected forest land, or special-use forest land from households or people unless there is a change in the land use purpose that complies with the land use master plan and plans; quota for the acquisition of land use rights by households or individuals must not exceed 10 times of the allocation quota for agricultural land for households or individuals applicable to each type of land prescribed in Clauses 1, 2 and 3, Article 129 (Government of Vietnam, 2017a; The National Assembly of Vietnam, 2013). All of them also create barriers to attracting households, individuals, and businesses with the capacity and economic potential to invest in agricultural production development.

The 2024 Land Law (effective 1 August 2024) introduces changes relevant to accumulation. Households and individuals not directly engaged in agricultural production may receive transfers of paddy land within allocation quotas; exceeding the quota requires establishing an economic organisation and approval of a land-use plan by the district-level People's Committee. Economic organisations are eligible to receive transfers of agricultural land-use rights (excluding special-use and protected forests owned by individuals) when their plans are approved by district authorities. At the same time, an upper limit remains: Households and individuals may not receive more than 15 times the allocation quota (National Assembly of Vietnam, 2024). The revised framework expands entry but still constrains very large-scale consolidation.

Contribution of Land Use Rights (LURs) as Capital

Contribution of land use rights as capital is a contractual arrangement in which land use rights are contributed to an economic organisation’s charter capital (National Assembly of Vietnam, 2024). The model of contributing agricultural land-use rights as capital through business cooperation to grow a variety of crops to support purchasing and processing businesses has been successfully implemented in many regions and provinces across the country. In Son La province, the Prime Minister issued Decision No. 900/QD-TTg dated 18 June 2014, implementing a pilot program for farmer families to contribute capital in the form of land-use rights to rubber tree development projects managed by Vietnam Rubber Group. As a result, 6,267 families provided agricultural land to the enterprise, totalling 5,357 hectares, and the total number of personnel employed in the company was 3,518,963, of whom were relocated to the Son La hydropower plant. The total area of rubber plantations in Tuyen Quang is 5,398.7 ha, of which households contributed 4,407.6 ha. The project on safe vegetables, tubers, and fruits in Dak R Lap district (Dak Nong province) covered 200 hectares and used land-use rights as capital. Farmers contributed land-use rights

and received employment, while firms invested in finance, inputs, and technical services (Prime Minister of Vietnam, 2014; Nam, 2016).

The mechanism preserves farmers’ LURs, which is a key advantage, but presents operational risks. Households are often unfamiliar with corporate governance and profit-sharing; firms face contract-stability risks; valuation becomes contentious under losses, exposing farmers to downside risk.

Exchange of Agricultural Land Use Rights (Land consolidation)

Under current land law, the exchange of agricultural LURs among users within the same administrative unit is a key instrument to reduce fragmentation and enable mechanisation (General Statistics Office of Vietnam, 2021). As of July 2020, the whole country recorded 2,788 communes engaged in land exchanges, covering 790,000 hectares, an increase of 494 communes and 96,300 hectares compared to 2016 (Table 1). Regional distribution remains concentrated in the Red River Delta and the North Central and Central Coast, where fragmentation has historically been most severe, while progress is

Table 1: Result of the exchange of agricultural land use rights in Vietnam (2016–2020)

Regions	Number of Communes			Area (1.000 ha)			Change %
	2016	2020	Changes	2016	2020	Changes	
Whole country	2,294	2,788	+494	693.7	790.0	+96.3	
Red River Delta	1,314	1,374	+60	419.4	426.6	+7.2	+1.7
Northern Midlands and Mountains	187	292	+105	16.5	36.7	+20.2	+122.4
North Central and Central Coast	784	1,032	+248	253.5	321.0	+67.5	+26.6
Highlands	3	19	+16	0.1	0.4	+0.3	+300
South East	2	11	+9	3.2	1.3	-1.9	-59.4
Mekong Delta	4	60	+56	1.0	4.0	+3.0	+300

Note: Statistical tests were conducted to complement descriptive analysis. A paired t-test of area across six regions between 2016 and 2020 indicated that the national increase was not statistically significant ($t = 1.49$, $p \approx 0.20$). However, a Chi-square test at the commune level revealed highly uneven regional changes ($\chi^2 = 77.81$, $df = 5$, $p < 0.001$), with the Northern Midlands and Mountains and the Mekong Delta experiencing disproportionately large growth compared to other regions. Source: General Statistics Office of Vietnam, 2021

slower in mountainous regions due to terrain and capital constraints. Statistical analysis further shows that although the overall increase in area between 2016 and 2020 was not statistically significant at the national level (paired t-test, $p = 0.20$), the distribution of changes across regions was highly uneven (Chi-square test, $\chi^2 = 77.81$, $df = 5$, $p < 0.001$). This indicates that consolidation has advanced disproportionately, with the Northern Midlands and Mountains, and the Mekong Delta demonstrating particularly strong growth relative to other regions.

Even though the country's highest level of fragmentation is found in the Northern Midlands and Mountains, there has been little success in securing exchange for agricultural land-use rights in these regions due to their primarily mountainous topography and limited capital. In the South East, in the Mekong Delta, and the Highlands, there are relatively few communes, and a small amount of agricultural land is exchanged. The reason is that there is very little land fragmentation across the three regions (Figure 1).

Accompanying trends are consistent with consolidation objectives. Between 2016 and 2020, the average parcel size increased from 1,843.1 m² to 2,026.3 m² (an increase of 9.94%), while average agricultural land per household rose 12.31% (General Statistics Office of Vietnam, 2021). The average number of parcels per household declined nationwide (for example, in the Red River Delta, from 3.4 to 2.6; in the North Central & Central Coast, from 3.0 to 2.7 between 2011 and 2016), reflecting reduced fragmentation (Central Rural, Agricultural, and Fisheries Census Steering Committee, 2016). Empirical case studies report associated shifts toward higher-value systems: Quality rice, safe vegetables, flowers, and concentrated livestock, and reductions in production and labour costs due to improved transport and irrigation (Huyen *et al.*, 2024; Son *et al.*, 2024; Vien, 2022). For example, in Ky Anh district (Ha Tinh), consolidation was associated with increases in production value ranging from 1.2 to 8.4 times, depending on the model (Huyen *et al.*, 2024). Adoption of organic models remains limited due to yield penalties, higher costs, compliance requirements, and upfront investment.

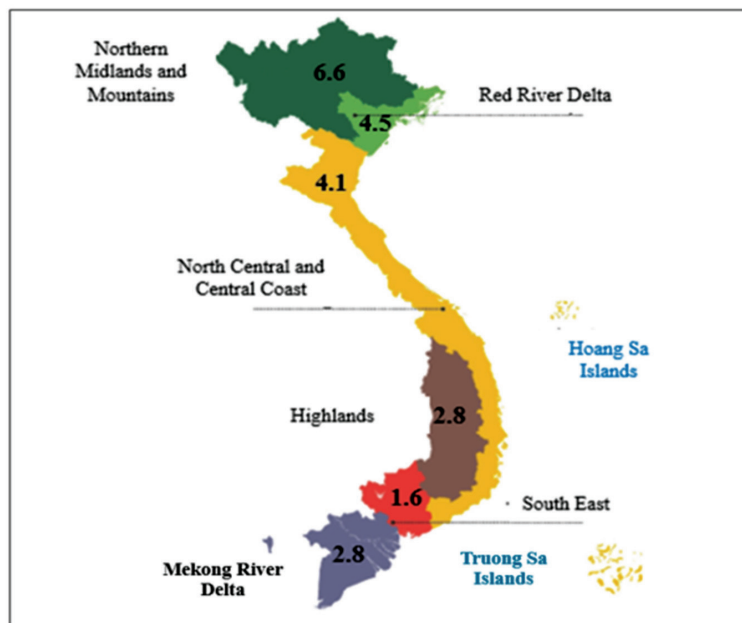


Figure 1: The average number of land parcels per household by region in Vietnam

Source: Huong *et al.* (2020)

Implementation challenges persist. Exchanges were restricted to commune-level boundaries under the 2013 Land Law, limiting scale and matching. The 2024 Land Law allows exchanges within the same provincial administrative unit, widening the feasible set for re-parcellation and potentially lowering transaction costs. Heterogeneity in parcel terrain and quality raises planning costs and complicates final layouts.

Lease of Land Use Rights

Land use rights can be leased in two ways: By lease or sublease. A land lease means that the State grants land use rights to subjects with land use demand under contracts for LURs leases. The 2013 Land Law specifies the circumstances under which agricultural land can be leased from the State and the lease term. Sublease of land use rights occurs when organisations, households, or individuals sublease their LURs to others (National Assembly of Viet Nam, 2013). In 2023, agricultural land totalled approximately 28.0 million ha, of which about 24.9 million ha were in use by land users and nearly 3.1 million ha under management (Ministry of Natural Resources and Environment, 2023). As a result, the primary supply is no longer the deciding factor in the land-use rights lease market; it now depends on the secondary supply, which comprises the agricultural land areas allotted or leased by the State. Market development remains limited: Household-level leasing is rated low at about 10-15% (Dung, 2022a). A study of six Mekong River Delta provinces found that only 40 of 600 households leased agricultural land (Do *et al.*, 2020). Regional contrasts persist; Northern provinces generally display more active lease/sublease markets than the South, where sale/mortgage transactions are more common (Huy *et al.*, 2016; Promsopha, 2015).

Ha Nam piloted a public intermediation model: the province financed commune/district authorities to lease land from households and then sublease to enterprises (despite the 2013 Land Law not explicitly prescribing this

pathway). The pilot consolidated roughly 400 ha for agricultural projects, including VinEco (Vingroup) with 180.7 ha in Nhan Binh and Xuan Khe, Ha Nam Hi-tech Agriculture JSC with 21.6 ha in Nhan Khang, and Vinamilk with 150 ha for high-tech dairy production (Dung, 2022b).

Leasing retains ownership for lessors and delivers rental income while preserving rights to transfer, inherit, donate, or mortgage. Constraints include a social preference to “hold land”, risk perceptions toward leasing to firms, and lease terms that are often too short for high-tech investments, particularly for commune public land funds, which are typically leased for up to five years. Evidence of abandoned land highlights frictions: Ha Nam reported about 310 ha of abandoned agricultural land in recent years (up from just over 100 ha in 2017); Vinh Phuc reported greater than 1,000 ha of abandoned land in the 2019 harvest and seasonal declines of cultivated area; Thanh Hoa reported more than 110 ha, and Thai Binh bigger than 1,200 ha (Huyen & Giang, 2024).

The allocation without a land-use levy and the exemptions from the agricultural land-use tax have reduced incentives to release under-utilised land. Some households with limited capacity or demand still retain land rather than lease, transfer, or return it, constraining secondary supply (Dung, 2022b). In addition, lease terms are often too short to support high-tech or large-scale investments: The 2013 Land Law set maximum durations of 50 years for households, 70 years for certain long-payback projects, and only five years for commune-managed public land. These restrictions discourage enterprises and households from committing resources to technological upgrading, particularly when leasing from commune-level land funds.

Cooperation in Production and Business as Land Use Rights

“Large-field” cooperation refers to organised production linking farmers, farmer organisations (cooperatives, unions), and enterprises to achieve scale (Prime Minister of Vietnam, 2013). Large-

scale cultivation of agricultural products is the hallmark of this business model. The goal is to produce premium, market-competitive products while improving production efficiency and increasing revenue for farmers and enterprises.

The large-field cooperation model, initiated in 2006 and promoted nationwide from 2011, has become one of the most dynamic mechanisms of land concentration. By 2020, Vietnam recorded 1,660 large fields across 1,051 communes, involving 327,326 households and covering 270,998 hectares, of which 128,779 hectares were pre-contracted for sales (Table 2). Regional differences are striking: The Mekong Delta alone accounted for nearly 184,000 hectares, equivalent to 68% of the national total, with an average of over 740 hectares per commune, far exceeding other regions. In contrast, the Red River Delta and the North Central and Central Coast contributed 30,000-40,000 hectares each, while the Highlands and South East remained marginal. When normalised, household participation per commune was highest in the North Central and Red River Delta (over 340 households on average), and lowest in the Highlands (137 households on average). These patterns highlight the Mekong Delta's dominant role in scaling up the large-field model, while

also highlighting structural disparities in adoption across regions.

Currently, the development of large fields continues to be hampered by bottlenecks. There is no dedicated, stable incentive framework for forming concentrated farm areas; administrative procedures for investment remain complex; and land-related provisions to support cooperatives are difficult to implement in practice. During 2002-2012, only 1,588 cooperatives (8.1%) received land without levy (1,752 ha), and 901 cooperatives (4.6%) leased 10,305 ha; in 2013-2018, 2,044 cooperatives received/leased 2,676 ha (Huyen *et al.*, 2022). The limited number of firms operating in primary agriculture further constrains scaling: By 31 December 2022, there were 12,094 agricultural, forestry, and fishery enterprises, accounting for 1.35% of all enterprises (General Statistics Office of Vietnam, 2022b).

Figure 2 summarises the evolution of the four main mechanisms of land accumulation and concentration in Vietnam: Transfer, leasing, land consolidation, and large-field models, during 2010-2023. The descriptive statistics highlight the uneven pace of development across mechanisms: Leasing consistently involved a

Table 2: The model of large fields in Vietnam

Regions	Communes	Large Fields	Households	Area (ha)	Contracted Area (ha)	Average Area per Commune (ha)	Average HHs per Commune
Whole country	1,051	1,660	327,326	270,998	128,779	257.8	312
Red River Delta	327	504	111,127	31,849	11,654	97.4	340
Northern Midlands and Mountains	78	114	19,041	5,382	1,286	69.0	244
North Central and Central Coast	323	550	110,406	39,505	19,217	122.3	342
Highlands	41	51	5,599	4,157	1,365	101.4	137
South East	35	45	3,268	6,149	2,158	175.7	93
Mekong Delta	247	396	77,885	183,956	93,099	744.1	315

Source: General Statistics Office of Vietnam (2021)

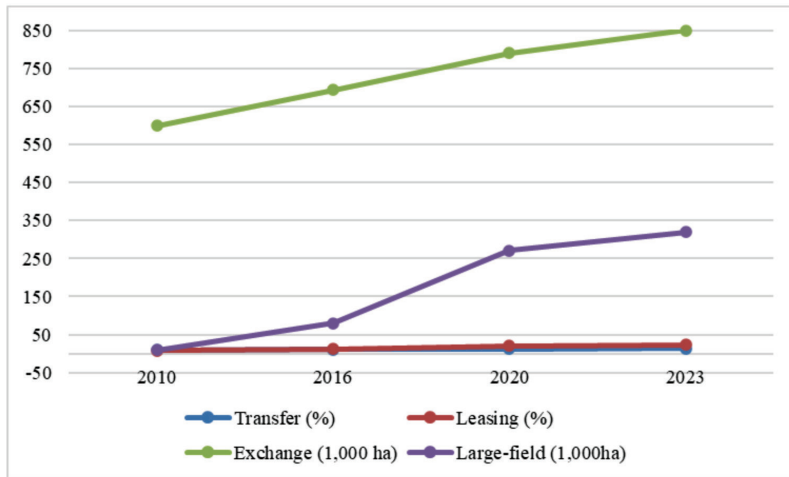


Figure 2: Evolution of land accumulation mechanisms in Vietnam (2010-2023)
Source: Own obligation

higher share of households than transfer, land consolidation (exchange) expanded steadily after 2016, and large-field models recorded the most rapid increase in scale.

Taken together, these results, illustrated in Figure 3, provide a comprehensive picture of how different mechanisms of land accumulation and concentration have evolved in Vietnam. This sets the stage for a broader discussion on their implications and the extent to which international experiences may inform Vietnam's future policy directions.

Discussion and Policy Implications

Discussion

Vietnam's farmland fragmentation, which has persisted since the 1993 Land Law allocated land-use rights to households, continues to constrain agricultural modernisation. The prevalence of small, scattered plots raises production costs, hampers mechanisation, and delays the adoption of technological innovations (Hung *et al.*, 2007; Huong *et al.*, 2020; Huu *et al.*, 2023; World Bank, 2016). As a result, Vietnam's agricultural labour productivity remains significantly lower than that of other countries in the region. Specifically, it is approximately 12 times lower than in Malaysia, 2.1 times lower

than in Thailand, and 1.8 times lower than in the Philippines (Quynh & Thu, 2021).

Farmland fragmentation is not unique to Vietnam; it occurs in many countries worldwide and poses significant challenges to organising large-scale agricultural production (Blarel *et al.*, 1992; Choi, 2004; Demetriou *et al.*, 2013; Guo & Wang, 2023; Işcan, 2018; Manjunatha *et al.*, 2013; Tan *et al.*, 2008; Van Dijk, 2003). In practice, a variety of land governance approaches have been adopted to address agricultural land fragmentation, including land consolidation, the establishment of land funds and land banks, voluntary parcel exchange, and cooperative farming (Demetriou *et al.*, 2013). Each of these approaches carries distinct advantages and limitations, and their effectiveness depends on specific socio-economic, legal, and institutional contexts, thereby requiring careful consideration and tailored application in different countries. In Eastern Europe and Africa, after land privatisation, land consolidation has been widely adopted as a policy tool to improve land tenure structures and reduce fragmentation (Abubakari *et al.*, 2016). In Central and Eastern Europe, land consolidation demonstrated that it not only optimised farm sizes but also facilitated rural infrastructure development and mechanisation (FAO, 2003).

In Vietnam, agricultural land accumulation and concentration through instruments such as land consolidation, land-use right leasing, production and business cooperation using land-use rights, land transfer, and land contribution as capital have been identified as key solutions (Chung, 2018; National Assembly of Vietnam, 2024). The descriptive statistics confirm that large-field models expanded much faster than land leasing or transfer mechanisms between 2010 and 2020. By 2020, large fields had reached 1,660 models covering 270,998 hectares (GSO, 2021). In contrast, the leasing market accounted for only 10-15% of households (Dung, 2022a), while transfers contributed modestly to consolidation, with only 12% of land originating from transactions (Chung, 2018). These figures illustrate the uneven performance of different mechanisms. Large-field models proved more effective because they are supported by enterprise-farmer contracts, guaranteed output markets, and input provision, all of which reduce risks and transaction costs. By contrast, leasing is constrained by short-term contracts, reluctance among households to release land, and the risk of abandonment, while transfers remain limited by quotas and eligibility restrictions. Exchange programs reduce fragmentation but remain costly, requiring careful planning and consensus among households.

Within Vietnam itself, empirical studies from the Mekong Delta demonstrate that land accumulation can significantly enhance both technical and environmental efficiency of rice production (Tu *et al.*, 2021). This evidence reinforces the results of the present study by showing that consolidation not only raises productivity but also contributes to more sustainable production practices in the country's most important agricultural region. International experiences further illuminate potential pathways and trade-offs (Demetriou *et al.*, 2013; Guo & Wang, 2023; İşcan, 2018). In China, land consolidation programs have expanded average farm size, reduced input intensity, and increased rural incomes (Duan *et al.*, 2021). In Estonia, policies have sought to prevent excessive concentration through ceilings and regulatory

oversight, balancing efficiency gains with social equity (Rasva & Jürgenson, 2022). In Southeast Asia, restrictions on land markets in countries such as Thailand and the Philippines have slowed consolidation, limiting the emergence of large-scale commercial farming (Hayami, 2000; Hirsch, 2020; Promkhambut *et al.*, 2023). These international cases highlight both best practices and institutional pitfalls, suggesting that Vietnam's trajectory requires not only stronger support for large-field linkages but also legal and financial reforms to strengthen leasing and transfer markets while avoiding risks of over-concentration.

Policy Implications

The trajectory of Vietnam's land policy over the last decades reflects a consistent commitment to overcoming farmland fragmentation and fostering large-scale, modern agriculture. This orientation has been articulated in successive Party Central Committee resolutions, such as Resolution No. 26-NQ/TW (2008), No. 19-NQ/TW (2012), Resolution No. 26-NQ/TW (2022), Resolution No. 18-NQ/TW (2022), and Resolution No. 19-NQ/TW (2022), and was institutionalised through the 2003 and 2013 Land Laws alongside policies that promote investment in agriculture and rural areas and encourage cooperative production and market linkages (Central Committee of Vietnam, 2008, 2012, 2022; Government of Vietnam, 2018a, 2018b, 2022; National Assembly of Vietnam, 2003, 2013; Party Central Committee, 2022). The 2024 Land Law marks a further step in this policy continuum. Together, these instruments provide a legislative basis for concentrated production zones, mechanisation, and the adoption of advanced technologies; however, the persistence of small-scale structures indicates that implementation gaps remain and that complementary measures are required to translate legal provisions into tangible, system-wide efficiency gains.

Within this policy architecture, credit and financial policies play a pivotal enabling role but still face practical constraints. Reforms under Decree No. 55/2015/ND-CP, as amended

by Decree No. 116/2018/ND-CP, and the concessional lending program established by Resolution No. 30/NQ-CP, amounting to at least VND 100,000 billion with interest rates 0.5-1.5 percentage points below market levels, have expanded access to capital for high-technology agriculture (Government of Vietnam, 2017b). In parallel, innovation funds such as the Startup Support Fund and the National Science and Technology Innovation Fund have sought to catalyse private investment. Notwithstanding these advances, commercial banks remain risk-averse given market volatility and climate and weather risks in agriculture, resulting in continued difficulties for both farmers and enterprises in securing long-term finance. Addressing these frictions requires not only the maintenance of concessional credit but also operational mechanisms: Credit guarantees, streamlined collateral requirements, and performance-based disbursement, that lower transaction costs and align incentives for scaling mechanisation and technological upgrading.

Further consolidation of the legal and institutional framework is essential to deepen the agricultural land-use rights market. A transparent, integrated land information system that covers planning, ownership, encumbrances and disputes, and market prices would reduce information asymmetries, improve due diligence in land transactions, and strengthen regulatory oversight. Tenure security should be reinforced by calibrating lease durations for large-scale, technology-intensive projects to investment horizons and by linking extended terms to verifiable obligations for fixed-capital investment, land improvement, and environmental stewardship. Such measures would increase the predictability of returns and crowd in private capital without weakening safeguards against misuse.

Tax policy reform is also central to correcting underutilisation and discouraging land hoarding. The long-standing emphasis on exemptions and reductions has alleviated financial burdens for users but has had the unintended effect of dampening incentives to release idle land. A rebalanced framework that applies progressive

taxation to abandoned or inefficiently used land, while retaining targeted incentives for high-technology and large-scale agricultural projects, would steer land toward productive use and improve allocative efficiency. The credibility of this approach depends on clear criteria, transparent assessment, and robust enforcement to avoid arbitrary application.

As consolidation advances, it is essential to integrate social policy to safeguard livelihoods and sustain rural resilience. Existing measures for compensation, vocational training, and employment support for households affected by land recovery should be implemented through programs that connect skills development with actual labour demand in local and regional markets. Integrating financial compensation with targeted training and non-farm livelihood development can reduce adjustment costs for displaced workers and align land consolidation with broader rural development and human capital objectives.

Risk management instruments require parallel strengthening. Expanding agricultural insurance beyond a limited set of crops and livestock, simplifying claim and indemnity procedures, and adopting digital technologies (satellite-based monitoring, IoT sensors, and AI-assisted loss assessment) would enhance transparency and reduce basis risk. Integrating insurance with agricultural credit, through premium subsidies tied to loan products or portfolio-level risk-sharing, can lower financing costs and incentivise sustained investment in productivity-enhancing technologies.

Finally, effective governance hinges on credible monitoring and enforcement. Systematic detection of idle or misused land, accompanied by proportionate and predictable sanctions, is necessary to deter speculation and ensure timely, productive use. Embedding community participation within land information systems and grievance mechanisms can improve compliance, while periodic audits provide accountability for projects that have been allocated land but are slow to implement. By tightening the feedback loop

between information, enforcement, and policy adjustment, these measures would convert the legal advances embodied in the 2024 Land Law and prior reforms into durable improvements in land-use efficiency.

Taken together, these policy directions build on Vietnam's long-standing reform trajectory while directly addressing the institutional, financial, and governance bottlenecks that limit the effectiveness of land accumulation and concentration. If implemented coherently, linking transparent markets, secure tenure, accessible finance, calibrated taxation, social safeguards, risk-sharing instruments, and robust enforcement, they can accelerate the transition toward an efficient, technologically advanced, and sustainable agricultural sector.

Conclusions

This study demonstrates that agricultural land accumulation and concentration remain the primary drivers of agricultural modernisation in Vietnam. These processes contribute to expanding production scale, promoting specialisation and mechanisation, reducing fragmentation, and enhancing value chain efficiency. They also orient agriculture towards high-tech, green, and circular models. The research systematically examines mechanisms of accumulation, including land transfer, leasing, capital contribution, and land cooperation, within the framework of the 2024 Land Law. By integrating secondary data and expert interviews, the study clarifies the institutional, financial, and socio-psychological barriers that impede this process. Drawing on these findings, eight policy implications are proposed to reform the land use rights market, expand secure tenure, restructure taxation, and strengthen financial instruments, agricultural insurance, and livelihood protection. These measures aim to promote sustainable land accumulation while balancing economic efficiency and social equity. Future research should address the differential impacts on various farmer groups, assess the effectiveness of financial tools, leverage digital technology in land governance, and conduct

international comparative analyses to identify optimal scales and governance mechanisms for sustainable agricultural development.

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Conflict of Interest Statement

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare absence of conflicting interests with the funders.

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