

# Vietnam Agriculture Finance Diagnostic Report

Financial Inclusion Support Framework  
—Vietnam Country Support Program



© 2019 The World Bank Group

1818 H Street NW  
Washington, DC 20433  
Telephone: 202-473-1000  
Internet: [www.worldbank.org](http://www.worldbank.org)  
All rights reserved.

This report is a product of the staff of the World Bank Group. It is part of a larger effort by the World Bank Group to provide open access to its research and make a contribution to development policy discussions around the world. The World Bank Group refers to the member institutions of the World Bank Group: The World Bank (International Bank for Reconstruction and Development); International Finance Corporation (IFC); and Multilateral Investment Guarantee Agency (MIGA), which are separate and distinct legal entities each organized under its respective Articles of Agreement. We encourage use for educational and non-commercial purposes.

The findings, interpretations, and conclusions expressed in this report are those of the authors and do not necessarily reflect the views of the Directors or Executive Directors of the respective institutions of the World Bank Group or the governments they represent. The World Bank Group does not guarantee the accuracy of the data included in this work.

#### **Rights and Permissions**

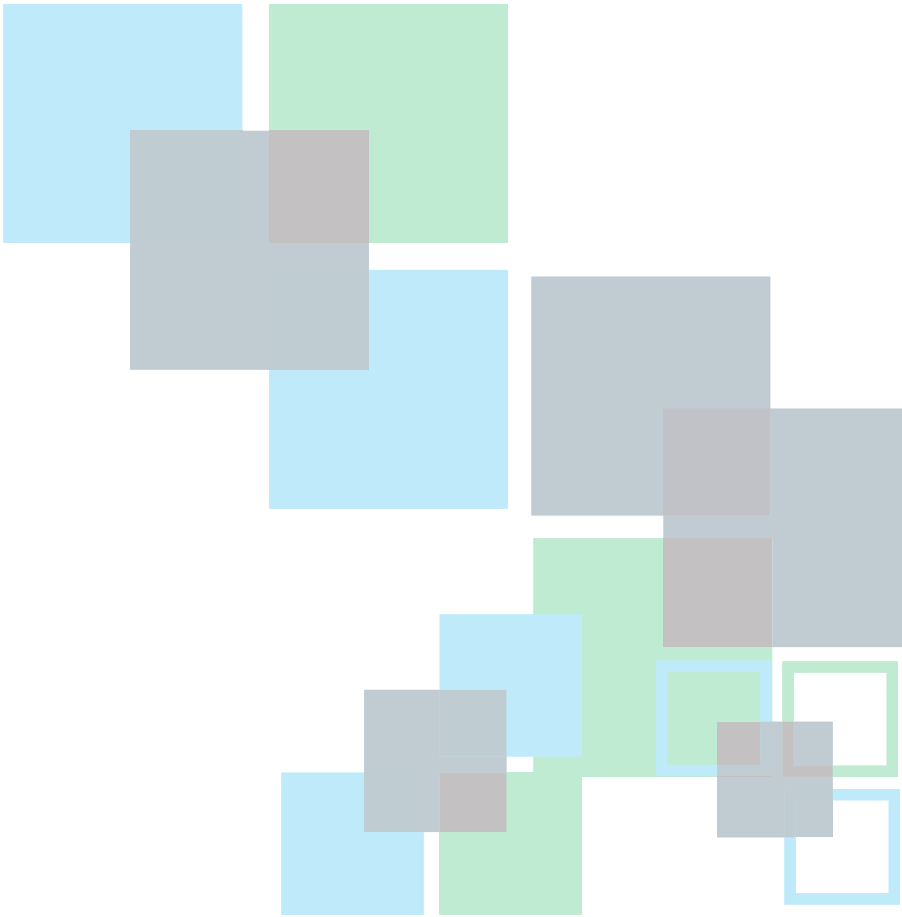
The material in this publication is copyrighted. Copying and/or transmitting portions or all of this work without permission maybe in violation of applicable law. The World Bank encourages the dissemination of its work and will normally grant permission to reproduce portions of the work promptly.

All queries on rights and licenses, including subsidiary rights, should be addressed to the Office of the Publisher, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2422; e-mail: [pubrights@worldbank.org](mailto:pubrights@worldbank.org)

# Vietnam Agriculture Finance Diagnostic Report

Financial Inclusion Support Framework  
—Vietnam Country Support Program







# Table of Contents

<b>Abbreviations and Acronyms</b> .....	III
<b>Acknowledgements</b> .....	V
<b>Executive Summary</b> .....	VII
<b>1. Introduction</b> .....	1
<b>2. Landscape of Agriculture Finance</b> .....	5
2.1 Agriculture Sector Overview.....	5
2.2 Key Agricultural Products and Value Chains .....	11
2.3 Access to Finance for Farmers and Agribusinesses .....	14
<b>3. Supply of Agriculture finance</b> .....	17
3.1 Overview of Agriculture Finance Market .....	17
3.2 Key Market Players, Products, and Lending Performance.....	18
3.3 Other Mechanisms to Support the Provision of Financial Services to the Agriculture Sector.....	26
3.4 Collateral and Credit Enhancements .....	27
<b>4. Key Public Sector Instruments for Agriculture and Agriculture Finance</b> ..31	
4.1 Support to the Agriculture Sector.....	31
4.2 Support to Agriculture Finance.....	32
<b>5. Key Constraints and Challenges</b> .....	39
<b>6. Recommendations</b> .....	41
<b>References</b> .....	51
<b>Annex 1. List of Key People Met During the Mission</b> .....	53
<b>Annex 2. State Bank of Vietnam Classification of Credit to Agriculture and Rural Development</b> .....	57
<b>Annex 3. Agricultural Insurance: Experiences and Lessons from Latin America</b> .....	59
<b>LIST OF TABLES</b>	
<b>Table ES. 1 Summary of Key Challenges and Corresponding</b> .....	XI
<b>Table 1. Annual Sector Growth Rates, 2011–2016</b> .....	4
<b>Table 2. Subsector Share of Gross Output in Vietnamese Agriculture, 2000–2017</b> .....	6
<b>Table 3. Average Labor Intensity and Intermediate Costs of Production of Selected Commodities, 2014</b> .....	7

Table 4. Composition of Agriculture and Agricultural Growth by Vietnam's Regions.....	8
Table 5. Role of Agriculture in Rural Areas of Vietnam, 2006–2016 .....	9
Table 6. Key Agriculture Finance Policies .....	35

#### LIST OF FIGURES

Figure 1. Account Penetration in Vietnam .....	2
Figure 2. Percentage of Adults Who Borrowed from a Financial Institution...3	3
Figure 3. Vietnam: Growth in Agricultural Value Added, 1995–2017 .....	5
Figure 4. Farm Size Distribution in Vietnam, 2014.....	9
Figure 5. Sources of Income of Rural Households in Vietnam, 2010–2014 ...10	10
Figure 6. Agriculture's Contribution to Rural Household Income by Region, 2002–2012 .....	10
Figure 7. Job Portfolio of Rural Households by Region, 2014 .....	11
Figure 8. Vietnam: Agri-Food Exports, 2005–2015.....	12
Figure 9. Agriculture Lending Portfolio and Composition, 2013–2017 .....	19
Figure 10. Comparison of Loans for Production and Processing/Trading Per Crop.....	19
Figure 11. Share of Total Lending to Agriculture and Rural Development Among Different Types of Financial Institutions .....	20
Figure 12. Share of Short Term and Long-Term Loans by Institution Type ....	21
Figure 13. Cooperative Model That Better Links Members with the Market	32
Figure 14. Premium and Compensation Rates in the Agricultural Insurance Pilot Program .....	37
Figure 15. Key Elements of an Action Plan to Promote Agricultural Insurance .....	44
Figure 16. Segmentation of Farmers .....	48

#### LIST OF BOXES

Box 1. Crop Receipts in Brazil .....	27
Box 2. Case study of a value chain firm—Loc Troi Group .....	29
Box 3. Developments in Crop Insurance .....	38
Box 4. Key Principles of an Efficient PCG Scheme .....	43
Box 5. New Technology Applications in Agricultural Insurance .....	45
Box 6. Sicredi Financial Cooperative System of Brazil .....	46
Box 7. Good Regulatory Practices to Support Agent-Banking Activities .....	47



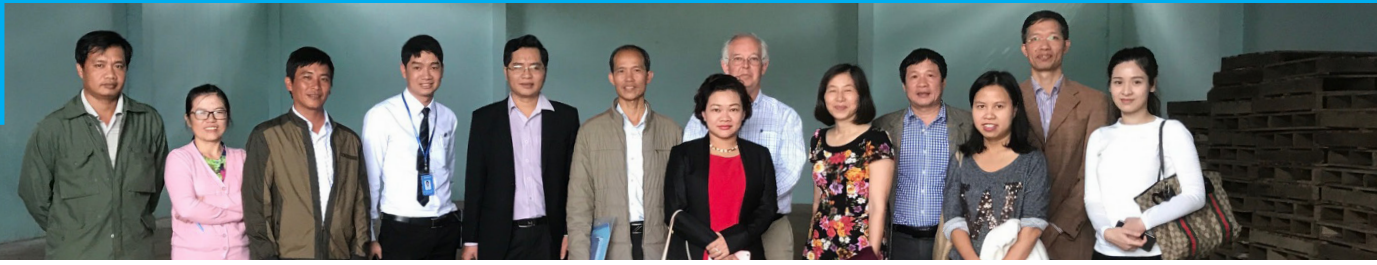


## Abbreviations and Acronyms

<b>Agribank</b>	Vietnam Bank for Agriculture and Rural Development
<b>APEC</b>	Asia-Pacific Economic Cooperation
<b>ARP</b>	Agriculture Restructuring Plan
<b>BIDV</b>	Bank for Investment and Development of Vietnam
<b>Coopbank</b>	Cooperative Bank of Vietnam
<b>GDP</b>	Gross Domestic Product
<b>GSO</b>	General Statistics Office
<b>ha</b>	Hectare
<b>IPSARD</b>	Institute of Policy and Strategy for Agriculture
<b>MARD</b>	Ministry of Agriculture and Rural Development
<b>MB</b>	Military Bank
<b>MFI</b>	Microfinance Institutions
<b>MOF</b>	Ministry of Finance
<b>NPL</b>	Nonperforming Loan
<b>ODA</b>	Official Development Assistance
<b>p.a.</b>	Per Annum
<b>PCF</b>	People's Credit Fund
<b>PCG</b>	Partial Credit Guarantee
<b>Petrolimex</b>	Vietnam Petroleum Import/Export Corporation
<b>SBV</b>	State Bank of Vietnam
<b>SCG</b>	Savings and Credit Groups
<b>SHB</b>	Saigon Hanoi Commercial Joint Stock Bank
<b>SME</b>	Small -and Medium -Size Enterprise
<b>VBSP</b>	Vietnam Bank for Social Policies
<b>VCA</b>	Vietnam Cooperative Alliance
<b>VDB</b>	Vietnam Development Bank
<b>VMUCC</b>	Vietnam Women's Union Central Committee





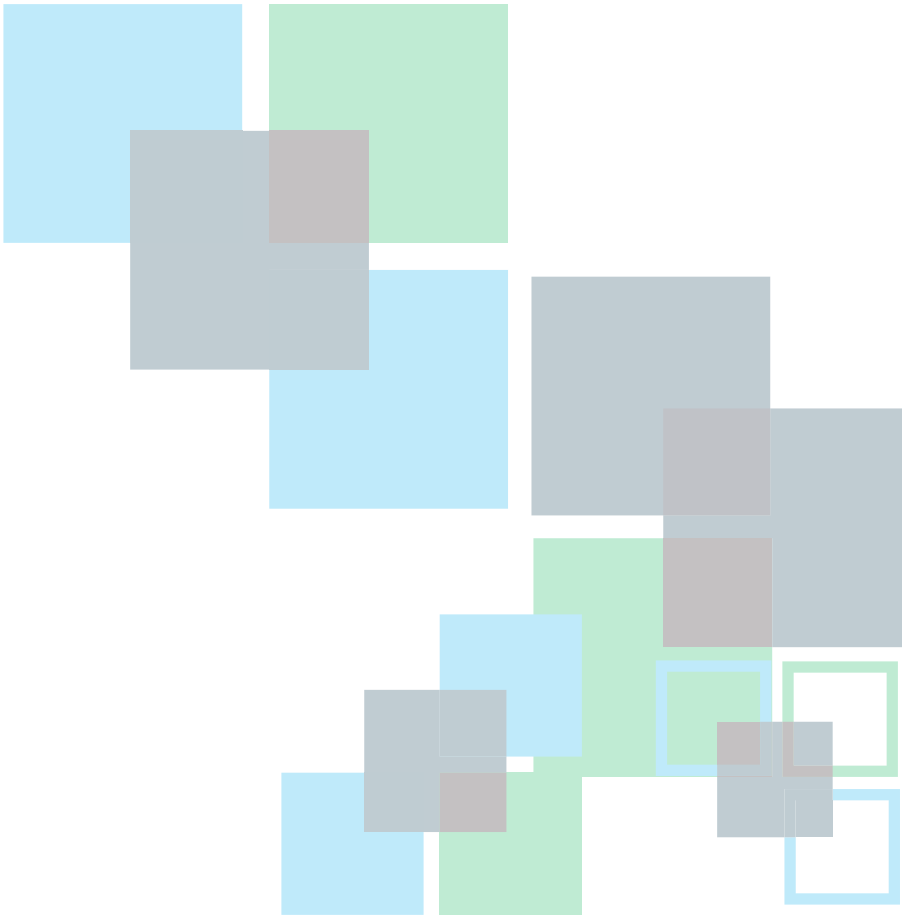


## Acknowledgments

This report was prepared at the request of the State Bank of Vietnam by a World Bank team led by Panos Varangis (head, agricultural finance) and including Juan Buchenau (senior financial sector specialist) and Rong Chen (economist). Sergiy Zorya (senior agricultural economist) carried out the analysis in the agriculture finance market overview. Alwaleed Alatabani (lead financial sector specialist), Trieu Quoc Viet (senior financial sector specialist—task team leader), Nguyen Hong Hanh (financial sector specialist), Vu Thu Hang (financial sector specialist), and Le Thi Phi Van (consultant) also contributed to the report. Bui Thi Phuong Nga (program assistant) provided operational and logistics support.

The authors visited Hanoi, Vietnam and conducted field trips to three provinces (Lâm Đồng, An Giang and Đồng Tháp) in November 2017. The visits aimed to gain first-hand information of the demand and supply of agriculture finance. Several institutions met during the visits shared information that was critical in preparing this report. These include the State Bank of Vietnam (SBV), the Ministry of Finance (MOF), the Ministry of Agriculture and Rural Development (MARD), the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD), the Vietnam Bank for Agriculture and Rural Development (Agribank or VBARD), the Vietnam Bank for Social Policies (VBSP), the Credit Information Center (CIC), and the National Secured Transaction Registry. A selected number of private commercial banks, insurance companies, producer cooperatives, and federations of cooperatives, as well as agribusinesses also shared information—a full list is included in annex 1. Information in the report reflects discussions during the meetings with these institutions, as well as with smallholder farmers and agri-businesses.

The report was prepared under the Vietnam Country Support Program of the Financial Inclusion Support Framework, an initiative of the World Bank supported with funding from the Netherlands and the Bill and Melinda Gates Foundation. The team owes particular appreciation and wishes to thank the representatives from the State Bank of Vietnam, various Ministries and institutions, various public and private companies, including public and private banks, and individuals the team met, for their valuable time and all their efforts to facilitate the work that led to this report. The team wishes to thank the World Bank Group Vietnam team, and Steve Jaffee (lead agriculture economist) and Ajai Nair (senior financial sector specialist) for their support.





## Executive Summary

Agriculture remains economically and socially important in Vietnam despite agriculture's declining share of gross domestic product (GDP). The share of primary agricultural activity in the GDP has fallen to 13 percent, compared with more than 30 percent two decades ago. The active labor force in agriculture remains as high as 45 percent. However, agriculture is still very important in some regions such as the Central Highlands and the Mekong River Delta. The agriculture sector's growth rate has been trending downward since 2010, which calls for a search of new sources of growth to meet the growth target of 3 percent per year in the Agriculture Restructuring Plan (ARP) for 2017–2020.

Agriculture finance in Vietnam has to address two fundamental challenges: (a) facilitating financial inclusion and (b) supporting the transformation and growth of agriculture. From the perspective of financial inclusion, Vietnam has been advancing in providing basic financial services. According to the World Bank Findex 2017 data, account penetration (percent of people with an account at a financial institutions) is relatively high for women and young people but still low among rural populations. Lagging significantly among all populations is the use of digital financial services such as mobile money; most payments continue to be in cash. The level of access to basic credit outperforms neighboring countries per Findex data. Credit is still constrained, with land being the main, if not the exclusive, collateral. Vietnam continues to rely heavily on state financial institutions, such as the Vietnam Bank for Agriculture and Rural Development (Agribank) to finance agriculture. However, the provision of basic financial services depending heavily on state financial institutions may have its limitations in financing the continued growth and transformation of agriculture in Vietnam.

Per decision No. 899/QĐ-TTg on the Agriculture Restructuring Plan (ARP) in 2013, Vietnam has embarked on an agricultural transformation track. Its priorities are moving from agricultural production to increasing value addition in the agricultural value chain, as well as shifting from resource-intensive to technology-intensive agricultural growth. Agricultural restructuring aims to transform agriculture into a dynamic sector with consolidated land, improved food safety, higher value addition of production and commodities, and better

resilience to climate change. On November 16, 2017, the ARP was updated, per Decision No. 1819/QĐ-TTg, building on lessons learned during the first five years of implementation, to accelerate agricultural transformation and modernization.

The farming sector remains highly fragmented. About 70 percent of farms operate on less than 0.5 hectare (ha) and only 8 percent nationally have more than 2 ha. Meanwhile, the level of organization of farmers is low, especially for those outside of the rice value chain. Under the Vietnam Cooperative Alliance (VCA), there were 11,688 agricultural cooperatives serving more than 4 million members at the end of 2017. Both the fragmented production and the low level of organization of farmers impose challenges on agricultural transformation to large scale commercial production. It also makes the sector vulnerable to climate change. In 2016, saltwater intrusion in the Mekong Delta and droughts in the Central Highlands diminished the growth of agricultural GDP to 1.4 percent, compared to 2.4 percent in 2015 and 2.9 percent in 2017, two years with less hazardous weather events.

A research report by the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD) (2016) finds that investment growth in agriculture enterprises lags compared to other sectors. Most agriculture enterprises are small with constraints on (a) connecting to farmers, (b) accessing market information, and (c) building information and knowledge on technical barriers and international trade regulations. The use of new technologies is limited by agriculture enterprises, with reportedly 75 percent of these enterprises using outdated machinery. Furthermore, most agriculture enterprises are not familiar with the benefits of being classified as hi-tech agribusinesses or the licensing process. Therefore, while modernizing agriculture enterprises implies a potentially high demand for credit, the small-scale of these enterprises and their limited access to information on technology could constrain such demand.

The demand of farmers and agribusinesses for financial services is changing because of agricultural transformation: A large proportion of smaller farm households rely on nonfarm activities for household income, which requires a wider range of general financial services to support not only the agricultural activities but also the other household needs and activities. At the same time, income from other sources may also be used to some extent to finance agricultural activities. In addition, as farmers become more specialized and commercial due to the ongoing agricultural transformation processes, a larger amount of financing granted over longer terms is needed to support the increased scale of production and processing. Agribusinesses also need more and affordable credit and other financial products to adopt advanced operation infrastructure to generate higher value addition.

In spite of the growing and more sophisticated demand, access to finance by farmers and agribusinesses is far from satisfactory. According to the World Bank Enterprise Survey 2015, agribusinesses have the highest percentage of firms identifying access to finance as a major constraint compared to firms in other sectors, such as manufacturing or service. Farmers' access to credit is constrained by, among other things, gaps in financial literacy, collateral constraints, and the weakness of farmer organizations. Beyond improving financial literacy for smaller and poorer farmers, there are also gaps in financial literacy among more commercial and transitional farmers, and there is a need to promote financial skills beyond basic financial concepts and instruments, such as in the areas of risk management, insurance, leasing, and financial solutions focused on promoting hi-tech and climate-smart agriculture (World Bank, 2015a). In addition, serious issues with both the availability and valuation of collateral obstruct farmers' access to credit. Real estate ("red book" land use right) remains the most-used collateral in agricultural lending. Last but not least, farmers' organizations do not play a significant role in intermediating finance given weaknesses in their

management, unreliable accounting practices, and inability to provide collateral in most cases.

On the supply side, the financial sector has not been able to serve as a strong underpinning propelling the acceleration of the agricultural transformation process. The supply of financing mainly concentrates on poverty reduction and financial inclusion through relatively simple credit offerings that usually target the bottom of pyramid groups. Informal lending is still prevalent in rural areas. There is a limited supply of diversified and sophisticated financial products and services, such as leasing, warehouse finance, receivables and contracts, insurance, and guarantees, to fulfil the dynamic demands of farmers and agribusinesses experiencing agricultural transformation.

Meanwhile, the supply of financial services for the agriculture sector faces a high level of public policy intervention, ranging from interest rate caps on short-term loans to a series of credit policies, most prominently, Decree 55, which promotes uncollateralized lending, and the corresponding circulars. The implementation and results of the current agricultural finance policies are not being appropriately monitored. Only limited statistics are available and not much in terms of evaluating a policy's impact, particularly on the group of farmers a policy aims to help. Scattered empirical evidence indicates that in practice the impact of various credit policies is limited given (a) insufficient resources to provide reimbursement or subsidy to financial institutions that are required to provide lower than market interest rates (below breakeven) to the groups targeted by different policies, (b) limited instruments for risk sharing and unclear implementation guidelines, and (c) the unrealistic expectation that banks will lend to the groups targeted by different policies requiring lower levels of collateral. Below-market interest rates create distortions in the allocation of resources, impose growing fiscal

costs, and make financing agriculture financially unsustainable. Furthermore, coordination between different government entities on implementing these policies is limited.

As a consequence of public interventions, lending to the agriculture sector is concentrated in a few public financial institutions, with Agribank and Vietnam Bank for Social Policies (VBSP) playing a dominant role. State banks account for around three-quarters of market share in agriculture credit. The ongoing reforms of those public financial institutions, such as the equitization of Agribank, is critical to level the playing field for a more commercial supply of financial services to support agricultural activities. Entities such as the People's Credit Funds (PCFs) also prominently serve agriculture, though they have limited reach, with most entities being rather small and relatively unsophisticated, providing only a few services to farmers. Other private commercial banks are entering the agricultural finance market, but tend to focus on large agribusinesses or farmers with large-scale production and low risks and prioritize financing trade.

Vietnam's government has endeavored to reduce the perceived high risk of the agriculture sector through public-risk management mechanisms such as partial credit guarantee schemes and agricultural insurance pilot programs. Those mechanisms did not achieve expected results, largely due to design flaws. However, there is reason to revisit such mechanisms and improve their design and implementation modalities. As can be seen from experiences in other countries (for example, Colombia, India, Mexico)<sup>1</sup> addressing risks through guarantee schemes and agriculture insurance can be instrumental in attracting private sector finance to agriculture. Furthermore, the acceptance of flexible types of collateral, such as inventories or other types of moveable collateral, could reduce the reliance on real estate (land use rights) for finance.

---

<sup>1</sup> Annex 3 and Varangis et al. (2017).

In addition, a few specific areas that are of great importance to agricultural finance still require an enabling regulatory environment to guide the market. In particular, there is a lack of regulatory framework specific to commodity collateralized lending such as warehouse receipt financing. Commodity inventories are used in Vietnam as collateral, but this practice is generally limited to large agribusiness processors using stock monitoring services, due to the lack of a systematic way to regulate and license warehouses.

Vietnam also lacks adequate agent banking guidelines or regulations, a situation that impedes the uptake of agent banking activities, which in other countries have shown a great potential for reducing the cost of delivering financial services to farmers and other groups living in remote areas. Similarly, digital financial services have very limited penetration, and the government is trying to use the lessons from three pilot programs to develop a regulatory framework that could allow the broader adoption of digital finance.

The assessment of both supply and demand for agricultural finance, together with an examination of the enabling environment, reveals a series of challenges that limit the development of agricultural finance. To ensure sufficient financial support to transform and restructure agriculture, we suggest that the government (a) carry out an analysis on

the efficiency and impact of various credit policies with special attention to the relaxation of collateral requirements, as well as the financial sustainability of the credit supply (that is, the impact of interest rate caps on both demand and supply for agriculture credit); (b) redesign and strengthen the available risk management instruments, including partial credit guarantees and agricultural insurance; (c) support the reform of public financial institutions to ensure a commercial supply of agriculture finance and enhance the capacity of other types of financial institutions (for example, private banks, PCFs) to fulfil their potential to serve the agriculture sector; (d) create an enabling environment to reduce the operating cost of delivering credit and financial services through alternative delivery channels such as agent banking and digital financial services; (e) adopt legislation to support commodity collateralized lending such as warehouse receipt financing and the use of construction and other infrastructure on land to serve as collateral; and (f) conduct a nationally representative survey across subsectors of agriculture to capture the changing demand of farmers and agribusinesses for financial services under the agricultural transformation process. The key challenges and corresponding recommendations are summarized in table ES.1. Specific actions for each recommendation are detailed in the recommendation section of the report.

**Table ES.1. Summary of Key Challenges and Corresponding Recommendations**

Challenges	Recommendations
<b>Effectiveness of Credit Policy Interventions</b>	
<p>The low interest-rate cap reduces financial institutions' incentives to lend to the agriculture sector and results in favoring low-risk customers.</p>	<ul style="list-style-type: none"> <li>• Carry out an analysis of the efficiency and impact of various credit policies with special attention given to relaxation of collateral requirements, as well as the financial sustainability of the credit supply.</li> <li>• Examine the impact of interest rate caps on lending, particularly to smaller farmers, and also on the supply of credit.</li> <li>• Consider the elimination of an interest ceiling for agriculture lending to create incentives for financial institutions to lend more intensively.</li> <li>• Allow and promote more flexible forms of collateral such as structures (e.g., greenhouses) and equipment/machinery, as well as invoices, contracts, and receivables</li> </ul>
<p>In practice, adoption of various credit policies is low due to insufficient resources to ensure reimbursement or subsidy, limited instruments for risk sharing, and unclear implementation guidelines.</p>	
<p>In spite of Decree 55, which promotes uncollateralized lending, real estate (land use right) remains the most-used collateral in agricultural lending.</p>	
<b>Efficiency of Public Risk-Management Instruments</b>	
<p>There are two main types of credit guarantee funds: the national credit guarantee fund managed by the Vietnam Development Bank (VDP) and the city/provincial level credit guarantee fund. Both types of credit guarantee fund face operating or funding issues.</p>	<ul style="list-style-type: none"> <li>• Reevaluate and redesign the risk management instruments of the partial credit guarantee scheme and agricultural insurance program by imbedding a market element to ensure their sustainability.</li> <li>• Come up with suitable institutional and implementation arrangements for such schemes.</li> </ul>
<p>Challenges observed in the pilot agricultural insurance program include a low level of understanding of the risks in the agriculture sector, especially risks affecting aquaculture; limited available data to design insurance products; weak linkage between credit and insurance; and low level of financial literacy among farmers about sophisticated financial products.</p>	
<b>Supply: Capacity of Financial Institutions (Public and Private)</b>	
<p>Agribank and VBSP account for more than half of overall lending to the agriculture sector. Their reform is critical to leveling the playing field for a more commercial supply of financial services to agriculture, and, especially, to commercial agriculture. Agribank has started the partial equitization process, which will have a profound impact on the commercial operation of the agricultural finance market.</p>	<ul style="list-style-type: none"> <li>• The partial equitization process of Agribank should be conducted with the goal of both maintaining its original mandate and improving efficiency and profitability. Strategic measures should be taken to enhance the corporate governance, risk management, systems development, and quality of service of Agribank, while avoiding mission drift of the institution during the equitization process. Also, government policies should allow Agribank to operate with more commercial criteria.</li> </ul>

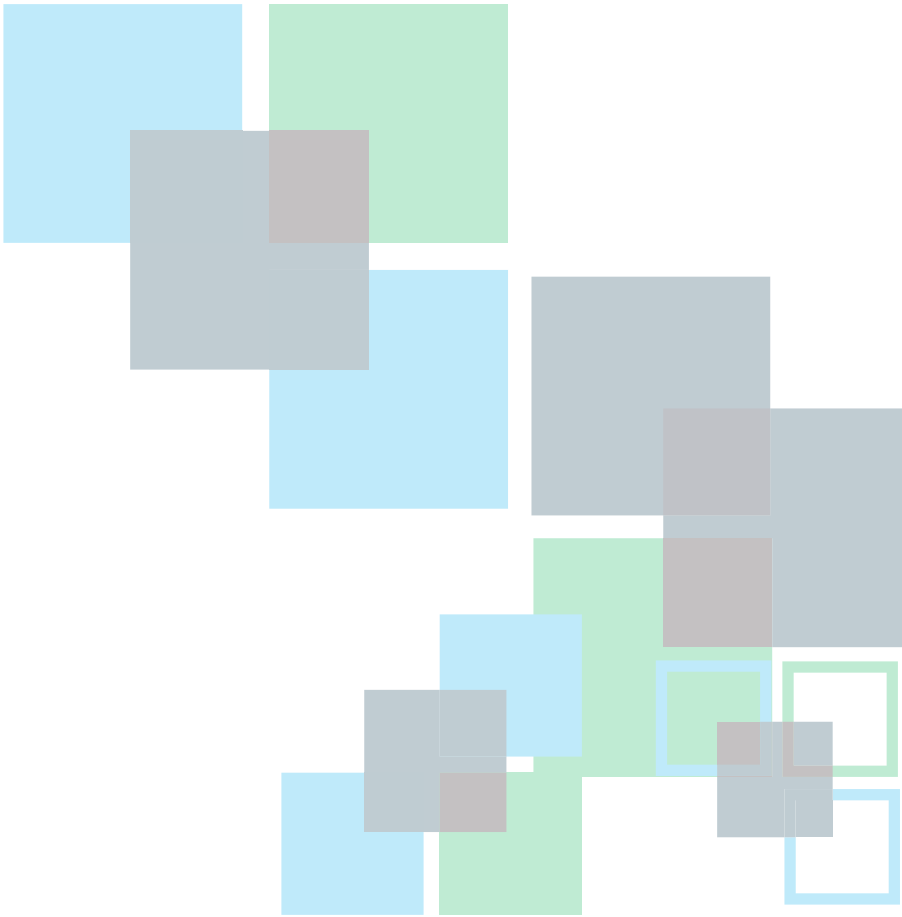
### Supply: Capacity of Financial Institutions (Public and Private) (continued)

<p>Private commercial banks lack qualified staff, appropriate tools, and methodologies to evaluate and manage risk in lending to the agriculture sector. Financial products and services provided are not diversified enough to meet the dynamic demand of agribusinesses and farmers undergoing agricultural transformation.</p>	<ul style="list-style-type: none"> <li>• Support capacity building, especially risk management, product design/development, and business development of financial institutions, to further unlock private financing resources to serve agriculture restructuring and transformation (including the diversification of income by smallholder farmers).</li> <li>• Promote the design and undertaking of other sophisticated financial products such as leasing, insurance, and commodity-based lending.</li> </ul>
<p>The development of PCFs is hampered by the small size of these entities that results in a low level of professionalism on their boards and staff, which further limits their capacity to diversify services and achieve economies of scale. While a formal second-tier integration structure exists (Coopbank), it does not yet provide the types of services that these entities would need to be able to respond to a more sophisticated demand.</p>	<ul style="list-style-type: none"> <li>• Integrate PCFs into larger pyramid structures (see the example of Sicredi in Brazil, see box 6, section 7) to which they can outsource some important functions such as accounting and information technology, audit/control, reporting to the authorities, and training of boards and staff.</li> <li>• Closely monitor the ongoing project by Développement international Desjardins, and if necessary, consider providing long-term financing to well-performing PCFs.</li> </ul>
<h3>Enabling the Regulatory Environment</h3>	
<p>A lack of regulatory framework specific to commodity collateralized lending, together with the existence of only few warehouses that can issue trustworthy and accredited warehouse receipts and the absence of a collateral management company, create obstacles for the development of commodity collateralized lending in Vietnam.</p>	<ul style="list-style-type: none"> <li>• Adopt legislation to support commodity collateralized lending.</li> </ul>
<p>There is no regulatory framework guiding agent banking activities, which is essential to engender trust and set operation standards to ensure the success of this new delivery channel of financial services, thus fulfilling its potential to serve clients in remote areas.</p>	<ul style="list-style-type: none"> <li>• Create an enabling environment to reduce the operating cost of delivering credit and financial services through alternative delivery channels such as agent banking and e-money/digital financial services.</li> </ul>
<p>Regulations to support using construction and structures on land as collateral are needed.</p>	<ul style="list-style-type: none"> <li>• Adopt legislation that facilitates the use of construction and structures on land as collateral.</li> </ul>



<b>Demand: Landscape of Agricultural Finance</b>	
<p>The farming sector is highly fragmented. Agricultural production is vulnerable to climate change and remains risky. Agricultural restructuring aiming to address those issues needs the support of diversified and sophisticated financial products and services.</p>	<ul style="list-style-type: none"> <li>• Continue endeavors on land consolidation and adopt climate-smart agriculture practices to promote large-scale agricultural production on a sustainable basis (commercially and environmentally).</li> <li>• Conduct a nationally representative survey to better understand the changing demands of farmers and agribusinesses for financial services along the agricultural transformation trajectory.</li> </ul>
<p>The financial literacy of farmers has gaps. Though commercial farmers have basic knowledge of financial concepts or products, their understanding of more sophisticated financial instruments, which is important to support the transformation of agricultural production, is limited.</p>	<ul style="list-style-type: none"> <li>• Promote financial skills beyond basic financial concepts and instruments, such as in the areas of risk management, insurance, leasing, and financial solutions, focusing on promoting hi-tech and climate-smart agriculture among commercial and transitioning farmers.</li> </ul>
<p>Agricultural cooperatives face various challenges such as weak managerial capacity and small scale, which limits them from playing the role of integrating farmers into the value chain for better access to finance.</p>	<ul style="list-style-type: none"> <li>• Strengthen the accounting and management capacity of farmer organizations and agricultural cooperatives.</li> </ul>

Note: Agribank = Vietnam Bank for Agriculture and Rural Development; Coopbank = Cooperative Bank of Vietnam; PCFs = Peoples' Credit Funds; VBSP = Vietnam Bank for Social Policies.





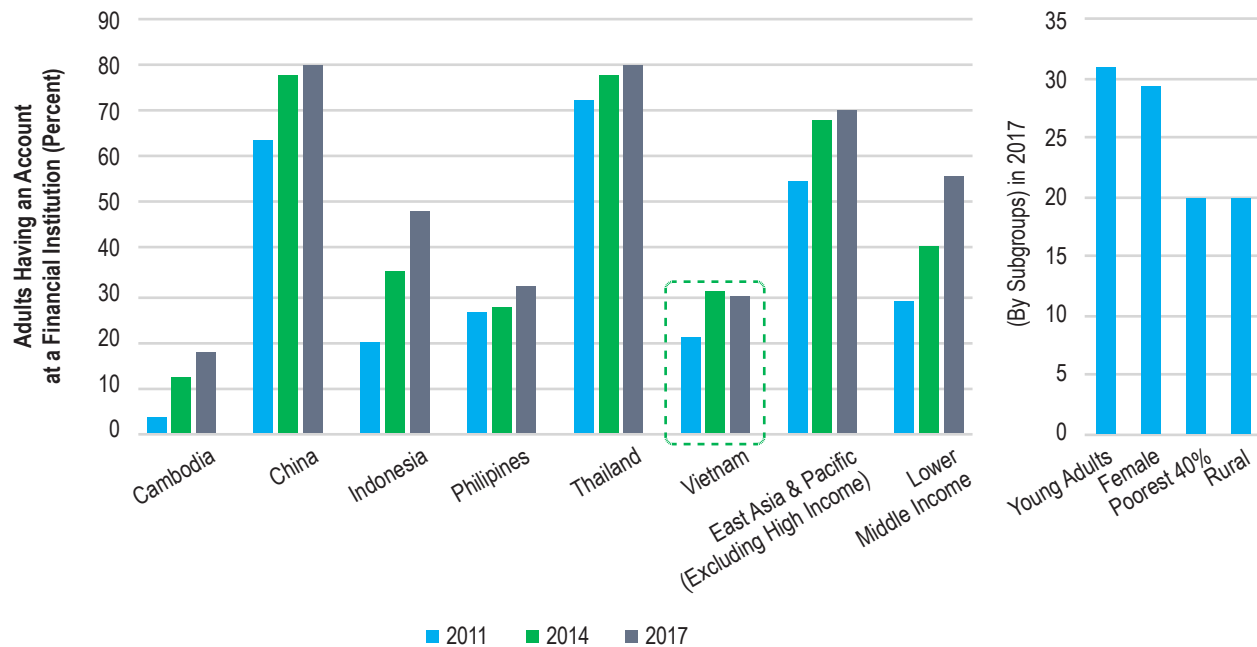
# 1. Introduction

**In its current state, agriculture finance in Vietnam has three main objectives: promoting commercial agriculture, supporting social protection programs, and providing direct subsidies and grants.** Agriculture finance supports not only commercial agriculture but also low-income farmers and rural households. This mix of social and commercial objectives in agriculture and rural finance by its nature has relied on state financial institutions and various government funds and programs.

**Starting with the lens of financial inclusion, Vietnam has shown moderate improvement over the past years.** The percentage of adults having an account at a financial institution increased from 21.4 percent in 2011 to 30.0 percent in 2017, though it remains on the lower end compared with neighboring countries (Figure 1). Zooming in to subgroups, rural and poor populations who are mainly involved in agricultural activities especially lag behind in this regard, while females and young adults are at almost the same level or even slightly higher than the national average. It has also to be noted that mobile banking is in its infancy, with only 3.5 percent of adults having a mobile account. Vietnam ranks 30 among 62 countries, measured by a World Bank benchmarking tool Enabling the Business of Agriculture Finance indicator, due to a lack of regulatory framework to support innovative ways of delivering financial services, such as mobile banking, agent banking, and the use of inventories as collateral.

**Though account penetration in Vietnam is far from satisfactory, the statistics on obtaining credit are encouraging.** The percent of adults who have borrowed from a financial institution is 20.6, which is higher than the East Asia and Pacific regional average and the lower middle-income country average (figure 2). The government's tremendous endeavors to support credit provisioning, especially to the bottom of pyramid groups such as farmers or fishers, through state banks such as the Vietnam Bank for Agriculture and Rural Development (Agribank) and the Vietnam Bank for Social Policies (VBSP) contribute to this high level of obtaining credit. The independent consultancy firm Nexus, in its *Review of Vietnam's Agro Finance Policies, Directives and Public Schemes* (Nexus, 2013), has pointed out that agriculture finance, dominated by public financial institutions and social protection schemes, serves not only commercial purposes but also social welfare since farmers and rural households generally belong to the low-income population.

**Figure 1: Account Penetration in Vietnam**



Source: Findex, 2017 (World Bank 2018).

**Though account penetration in Vietnam is far from satisfactory, the statistics on obtaining credit are encouraging.** The percent of adults who have borrowed from a financial institution is 20.6, which is higher than the East Asia and Pacific regional average and the lower middle-income country average (Figure 2). The government’s tremendous endeavors to support credit provisioning, especially to the bottom of pyramid groups such as farmers or fishers, through state banks such as the Vietnam Bank for Agriculture and Rural Development (Agribank) and the Vietnam Bank for Social Policies (VBSP) contribute to this high level of obtaining credit. The independent consultancy firm Nexus, in its Review of Vietnam’s Agro Finance Policies, Directives and Public Schemes (Nexus, 2013), has pointed out that agriculture finance, dominated by public financial institutions and social protection schemes, serves not only commercial purposes but also social welfare since farmers and rural households generally belong to the low-income population.

**However, there arise questions on the efficiency and sustainability of this government-led poverty-reduction approach to financing.** Limited data are available to quantitatively examine the efficiency of the huge amounts of fiscal resources channeled to support public financing. Nevertheless, it cannot be denied that private financial resources are not sufficiently utilized and worth further tapping. More important, the current agricultural transformation as envisaged in the Agriculture Restructuring Plan (ARP) from primary agricultural production to further value-added agricultural processing and trading, calls for adjustment of the financing approach to meet the dynamic financial demands of farmers and agribusinesses experiencing agricultural transformation.

**According to an Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD) (2016) report on attracting and**

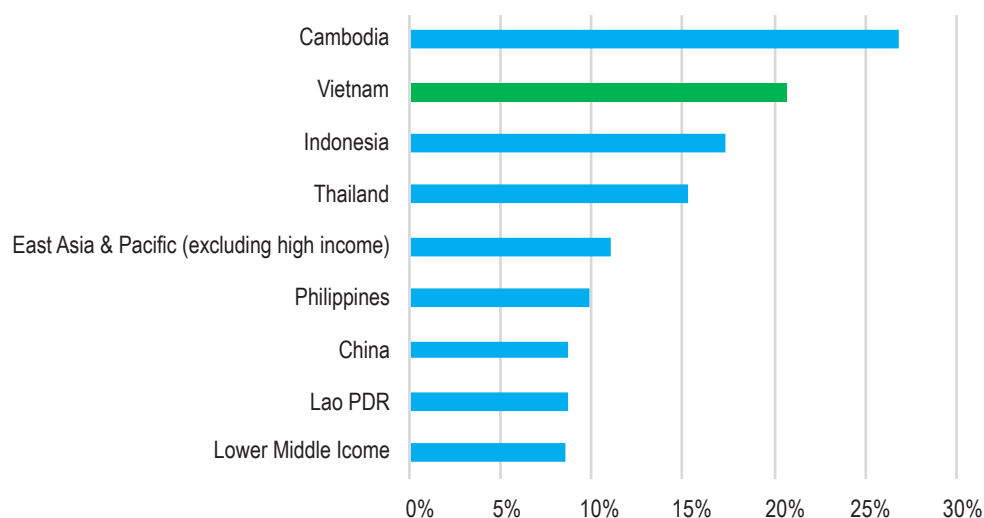
**promoting investment in the agriculture sector, the agriculture sector in Vietnam has reached a stage in which further growth from primary agricultural production appears more difficult, requiring new sources of growth from higher value-added agricultural activities.** In contrast to the stagnant agriculture sector, the industry and service sectors continue to show strong growth (Table 1). This offers conditions for needed restructuring of the agriculture sector, such as land consolidation as farmers migrate out of the agriculture sector for better and more opportunities in other sectors. On the other hand, it also opens a window for other opportunities of financing. A 2016 World Bank study (Sergiy and Jaffee, 2016) on agri-food jobs in Vietnam has shown that wages now account for a significant proportion of rural households’ income. Increasing nonfarm sources of income could help them finance their agricultural production.<sup>2</sup>

**Given the urgent need to revamp the financing approach to support agricultural transformation**

**under the dynamic economic restructure process, this agriculture finance diagnostic report focuses on assessing the current financing approach to promote the agricultural transformation process.**

The report is organized as follows: chapter 2 presents the landscape of agriculture finance, including an overview of the agriculture sector, key agricultural products and value chains, and current state of access to finance by farmers and agribusinesses. Chapter 3 assesses the supply side of agriculture finance, through providing an overview of the agriculture finance market and examining key players and their lending performance and services provided. Chapter 4 discusses key public support to agriculture and agriculture finance and highlights a variety of credit policies as well as public risk management instruments. Chapter 5 identifies key challenges that are constraining the growth of agriculture finance. And last, Chapter 6 makes key recommendations in responding to the challenges.

**Figure 2. Percentage of Adults Who Borrowed from a Financial Institution**



Source: FINDEX, 2017 (World Bank 2018).

<sup>2</sup> According to discussions with IPSARD staff, about 70–80,000 hectares (ha) out of 120,000 ha of the coffee rejuvenation program have been financed without bank credit. By late 2017, only 6 percent of the funds for the coffee rejuvenation program had disbursed over the past five years.

**Table 1. Annual Sector Growth Rates, 2011–2016**

	2011	2012	2013	2014	2015	2016
<b>Agriculture</b>	4.2	2.9	2.6	3.4	2.4	1.4
<b>Industry</b>	7.6	7.4	5.1	6.4	9.6	7.6
<b>Service</b>	7.5	6.7	6.7	6.2	6.3	7.0

Source: World Development Indicators (World Bank, 2017).

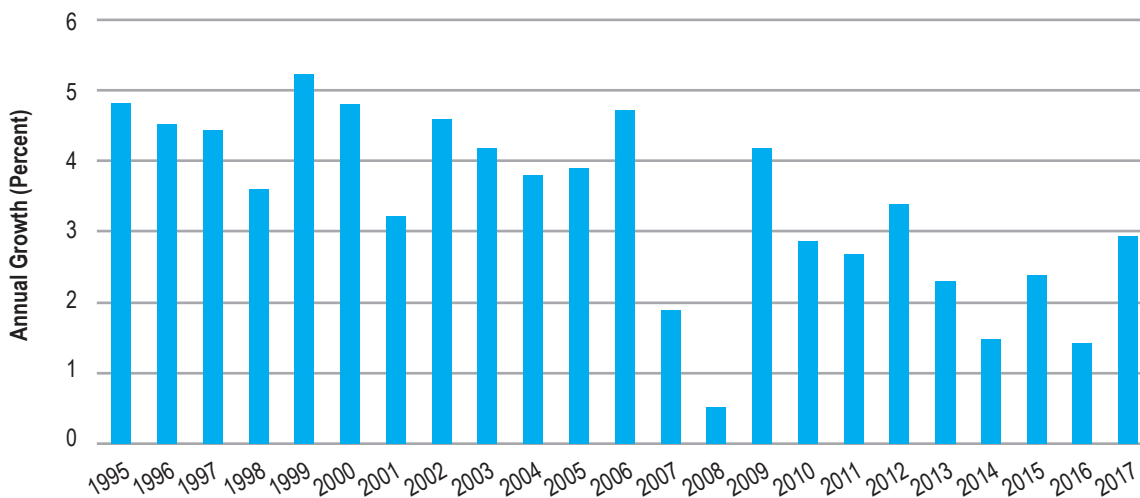


## 2. Landscape of Agriculture Finance

### 2.1 Agriculture Sector Overview

Agriculture<sup>3</sup> remains an important part of Vietnam’s economy, despite its relative decline during the last decade and the slowing of its growth rate. In 2016, agriculture accounted for 13 percent of gross domestic product (GDP), 45 percent of jobs, and 20 percent of exports. For comparison, the food processing industry accounted for 14 percent of GDP but only 5 percent of jobs. During 1995–2005, the agriculture sector grew by 4.2 percent per year on average, halving to 2.1 percent during 2010–2016 (Figure 3). The agricultural growth rebounded in 2017 to 2.9 percent, but the declining trend seems to prevail, calling for a search of new sources of growth to achieve the 3 percent growth target set in the ARP for 2017–2020.

**Figure 3: Vietnam: Growth in Agricultural Value Added, 1995–2017**



Source: For 1995–2014, World Development Indicators (World Bank, 2017); for 2015–2017, General Statistics Office.

<sup>3</sup> The agriculture sector consists of annual and perennial crops and livestock, fishery, and forestry products.

**In addition to slowing, agricultural growth has become more volatile in recent years.** Some of this recent volatility is the result of more extreme weather and increasing production volatility, which affects many farmers' income and cash flow. Climate change is becoming more and more apparent in Vietnam. Temperature increases in Vietnam have averaged 0.26 degrees C every decade since 1971, twice as much as global average (CIAT, 2017). Per the initial report of Vietnam to the United Nations Framework Convention on Climate Change issued in 2014, the sea level along the coasts of Vietnam has risen by more than 20 cm over the past 50 years. Annual rainfall decreased in the north and increased in the south, leading to different patterns of drought across agro-ecological zones. Severe saltwater intrusion in the Mekong Delta and serious droughts in the Central Highlands in 2016 provide clear example of the adverse impacts of climate change on agricultural production—they caused agricultural GDP to decline by about 1 percent compared to the years with less hazardous weather events.

**Some of this volatility also reflects a lesser dependence on paddy, which is largely irrigated and usually shows more stable production rates than other crops.** In the past, a large chunk of agricultural growth was driven by the intensification of paddy production, that is, adoption of high-yielding varieties and a shift to two to three crops

per year. In recent years, however, the growth rate of paddy production has flattened, pointing to reaching the production possibility frontier by many farmers. Many farmers in the Mekong Delta produce more than 20 metric tons of paddy per hectare in one year, and it is hard to imagine a significant increase in production from this high baseline. As nonpaddy crops are less equipped with public irrigation infrastructure, their production tends to be more volatile.

**Within Vietnam's agricultural sector, the pace and pattern of growth has varied considerably among different subsectors.** While the annual growth of paddy production was only 2.8 percent from 2000 to 2014, aquaculture grew at a very impressive 8.5 percent during the same time frame, although the bulk of this growth took place in the period up through 2007. Since then, capture fisheries have had to contend with partially depleted near-shore fisheries, while the shrimp aquaculture industry faced large losses of production in 2012 and 2013 due to disease. Livestock production grew at 4.5 percent per year during 2000–2014, and this production was quite volatile, in large part due to disease outbreaks, plus volatility in the costs of animal feed and the prices of meat, especially pork. Despite challenges, the share of livestock and aquaculture in gross agricultural output gradually increased from around 20 percent in 2000 to more than 30 percent in 2017 (Table 2).

**Table 2: Subsector Share of Gross Output in Vietnamese Agriculture, 2000–2017**

	2000	2005	2011	2015	2016	2017
<b>Crops</b>	66.7	60.4	56.2	54.0	52.8	52.3
<b>Livestock</b>	13.5	14.7	16.1	19.1	19.8	19.6
<b>Capture fisheries</b>	9.9	8.7	8.2	8.9	9.0	9.2
<b>Aquaculture</b>	5.6	12.6	16.3	13.8	14	14.3
<b>Forestry</b>	4.2	3.5	3.2	3.1	3.3	3.3

Sources: General Statistics Office and FAOSTAT.



**Farmland use in Vietnam is becoming increasingly diversified, even if paddy continues to account for more than half of total cropland, and new farmland mainly goes to nonpaddy crops.** This is driven by the shifting diets of the rapidly growing middle class in Vietnam<sup>4</sup> and the rising global demand for Vietnamese products (World Bank, 2016). In 2000, paddy was harvested on 7.7 million ha, accounting for 63 percent of total harvested area. In 2014, it accounted for 55 percent of harvested area. The decrease was due to the expansion of total harvested area, from 12.2 million ha in 2000 to 14.3 million ha in 2014. The largest area expansion was seen by vegetables, cassava, rubber, and coffee.

**While agricultural diversification has been underway, its speed and depth are constrained by several factors.** The first one is the difficult legal process of converting designated paddy land (fixed at 3.8 million ha) into land for perennial crops or aquaculture ponds. Conversion of paddy land into other annual crops has been recently simplified, but

it is still only pursued slowly, constrained by the need for change in production masterplans, adjustments in irrigation infrastructure and practices, and additional public extension and other services to switch to other crops that are often lacking. The second constraint is little interest among many small farmers to move out of paddy and learn new production technologies and practices. Most farmers in Vietnam are part-time farmers operating on less than a hectare of land, with two to three additional nonfarm jobs, so they tend to prefer to produce paddy, which is less labor intensive and less costly to produce than higher value commodities. This leads to the third constraint: the intermediate costs and often even labor requirements of producing nonpaddy crops are usually much higher than that of paddy (Table 3). Higher production costs require more working capital, which is in short supply at affordable interest rates in Vietnam. Note that table 3 does not show initial investment costs to start new crops, which can add up to US\$1,000/ha for perennial trees.

**Table 3. Average Labor Intensity and Intermediate Costs of Production of Selected Commodities, 2014**

	Paddy	Coffee	Pepper	Mango	Citrus	Shrimp	Fish
<b>Revenue (in thousand VND/ha)</b>	39,133	111,871	174,556	227,459	246,811	112,521	150,639
<b>Intermediate costs (in thousand VND/ha)</b>	15,776	45,052	40,087	78,237	54,650	53,035	188,811
<b>Value added (in thousand VND/ha)</b>	23,357	66,819	134,469	149,223	192,161	59,486	-38,172
<b>Total labor input (person days/ha)</b>	130	216	353	225	492	117	951

Sources: IPSARD's estimate based on 2014 Vietnam Household Living Standards Survey (VHLSS).

Note: ha = hectare; VND = dong.

<sup>4</sup> The middle class in Vietnam grew from 50 percent of all people in 2010 to 70 percent in 2016 (2016 VHLSS). Since 2014, an average of 1.5 million Vietnamese joined the global middle class each year.

**Another contextual point about Vietnam’s agriculture is its regional differences.** Several regions, including the Red River Delta and the two Central Coast regions, have seen their rates of growth lag over most of the period since 2000 (table 4). The Red River Delta, for instance, has seen an absolute decline in value-added agriculture in four years during 2009–2013. Urbanization and industrialization are the main drivers of economic development there. The Central Highlands region has witnessed the most rapid and sustained rates of agricultural growth. The Southeast has also seen higher-than-average growth. Commercial tree crop development has underpinned this growth in both regions, together with expanding livestock development in the Southeast. The Mekong Delta region, which accounts for about one-third of value-added agriculture saw growth taper off between 2009 and 2013 due to some disruptive events in the aquaculture subsector and declining rates of growth in value-added rice. Among regions, Vietnam’s two rice bowls—the Mekong and Red River Deltas—have experienced the slowest pace of agricultural growth since 2009. Three regions, the Mekong Delta, the Southeast, and the Central Highlands, now account for about 60 percent of Vietnam’s gross

agricultural output and more than 80 percent of its agricultural exports.

**A large majority of Vietnam’s farms remain very small, with less than 0.2 ha, and farmers have little incentive to become professional full-time farmers.** In 2014, such farms accounted for more than 40 percent of all farms nationally and above 60 percent in the Red River Delta (Figure 4). About 70 percent of farms operate on less than 0.5 ha and only 8 percent nationally have more than 2 ha. Such a small farm size, which leads to the low value of collateralized assets, with farmers lacking professionalism and skills constraining the access of these farmers to commercial finance.

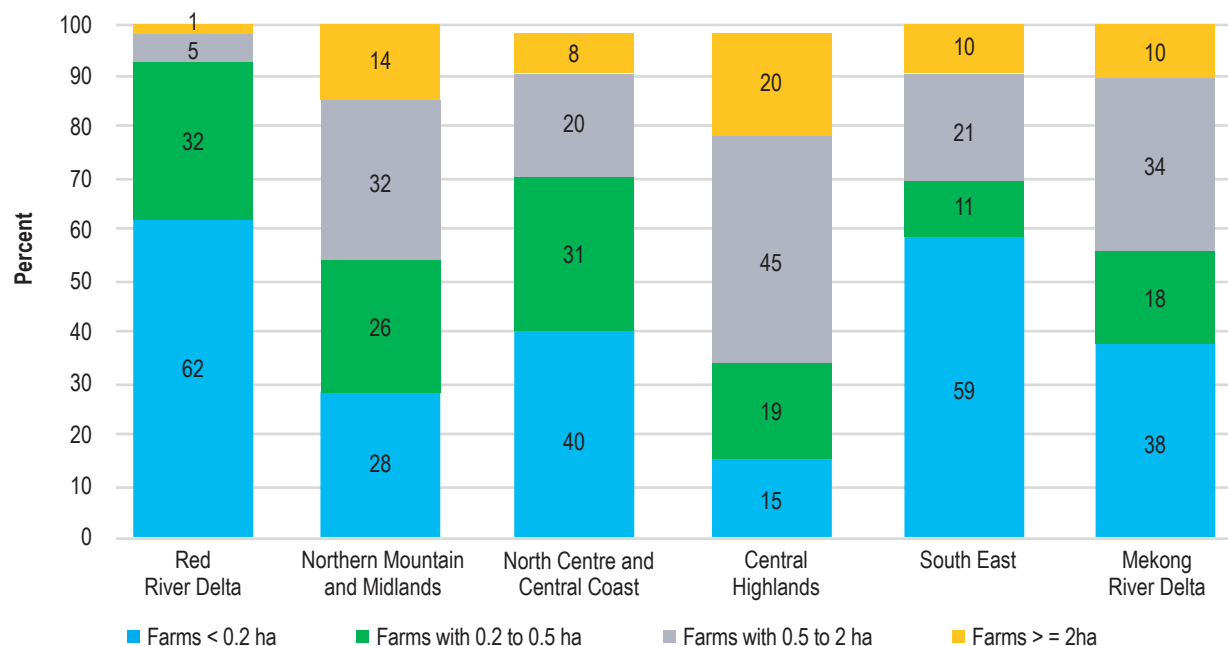
**Farmers with the smallest farm sizes usually have multiple sources of income from different jobs.** In Vietnam’s rural area as a whole, the reliance on agriculture among rural households is declining. The share of households classified as “agricultural” households declined from 71 percent of all rural households in 2006 to 58 percent in 2016 (Vietnam Agricultural Census 2016). Only 49 percent of rural households in 2016 reported their leading source income to be from agriculture, compared to 68 percent in 2006 (Table 5).

**Table 4. Composition of Agriculture and Agricultural Growth by Vietnam’s Regions**

	Rate of Growth in Agricultural Value-added, %, in Constant Prices			Share of National Value-added Agriculture (%)	
	2000–2013	2000–2004	2009–2013	2000	2013
<b>National</b>	3.6	3.9	2.8	100	100
Red River Delta	1.2	1.9	0.3	20	14
Northeast	4.4	3.4	5.7	9	10
Northwest	4.5	4.7	4.2	2	3
North Central Coast	2.5	3.0	1.2	11	9
South Central Coast	2.9	3.1	1.7	7	6
Central Highlights	8.7	8.5	8.6	6	11
Southeast	4.6	4.0	5.6	12	14
Mekong Delta	3.5	5.0	1.1	33	32

Sources: IPSARD calculations based on General Statistics Office data.

**Figure 4. Farm Size Distribution in Vietnam, 2014**



Source: VHLSS 2014.  
Note: ha = hectare.

**Table 5. Role of Agriculture in Rural Areas of Vietnam, 2006–2016**

	2006	2011	2016
Number of rural households	13,768,472	15,343,852	15,990,000
Agricultural households (%)	71	62	58
Rural households with leading income from agriculture (%)	68	57	49

Sources: Vietnam Agricultural Census 2016 (General Statistics Office, 2017)..

**Vietnamese rural households increasingly rely on nonfarm sources of income, which helps them finance their agricultural production.** Between 2004 and 2014, the share of rural households relying entirely on nonfarm income and wages increased from 22 percent to 32 percent. At the same time, the share of rural households relying only on income from agriculture declined from 23 percent to 19 percent. The vast majority of rural households have multiple sources of income. Wages are the largest single income source for rural households. In 2014, they accounted for

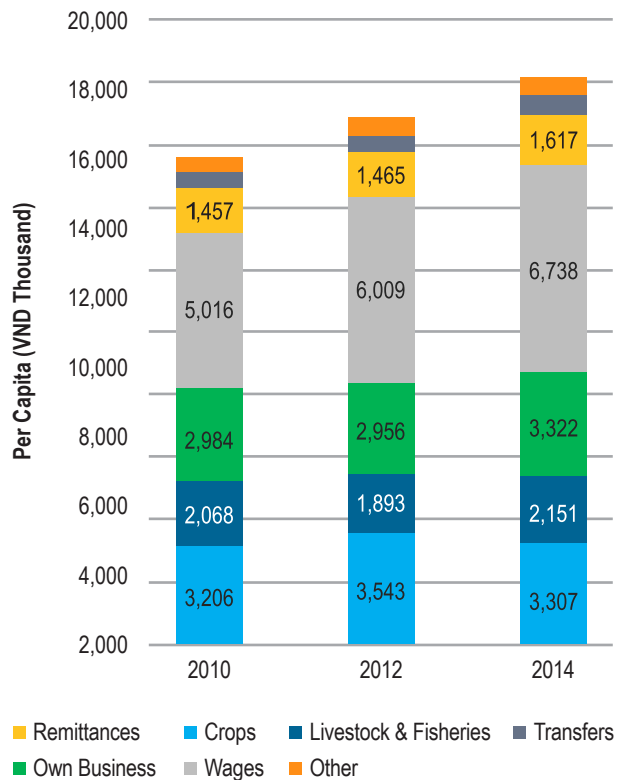
37 percent of average rural income, up from 32 percent in 2010 (Figure 5). The income from self-employment in agriculture made up 30 percent of total income, followed by income from owned nonfarm businesses, either formal or informal.

**The pace of the shift in income sources has varied substantially across the country.** Significant declines in agriculture income have occurred in the Red River Delta and the Northern and Coastal Central, regions which have been experiencing a

stagnation or decline in agriculture income (Figure 6). There has been less change elsewhere, with agriculture remaining the leading income source in the Mekong Delta, Central Highlands, and Midlands and Northern Mountains. In 2014, the income from agriculture accounted for about 40 percent of total per capita income in these parts of the country (Figure 7).

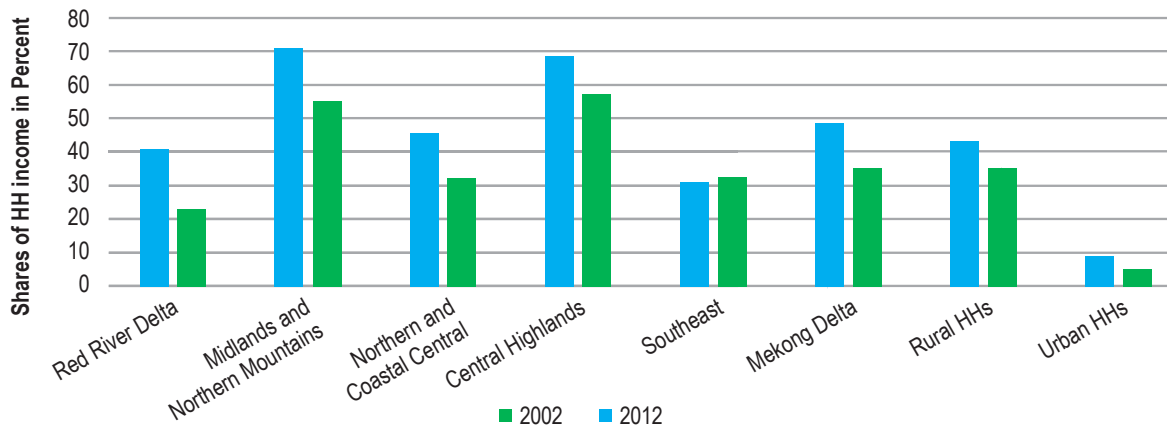
**Ethnic minorities are the most dependent on agriculture, with less diversified job portfolios.** They accounted for 15 percent of total population in 2016, but represented 73 percent of all the poor in Vietnam. Few ethnic minority farmers are trained or have skills to get jobs outside of farming, and more than 75 percent of them do simple jobs. Ethnic minority farmers' lower level of skills, together with their access to more marginal agricultural land and their limited participation in most aspects of high-value agriculture, is responsible for their lower agricultural productivity and incomes. These farmers require special attention and tailored programs to lift their agricultural productivity, including better access to finance. Ethnic minority farmers usually have fewer assets that can be used for loan collateral and often lack land user certificates and titles to access commercial loans.

**Figure 5. Sources of Income of Rural Households in Vietnam, 2010–2014**



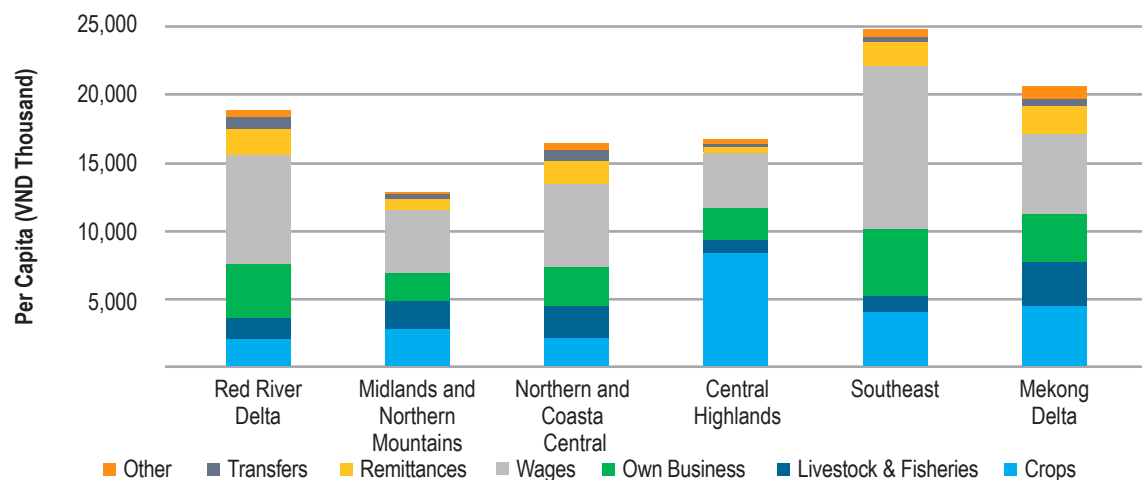
Source: IPSARD's estimate based on 2014 VHLSS.

**Figure 6. Agriculture's Contribution to Rural Household Income by Region, 2002–2012**



Source: IPSARD's estimate based on 2012 VHLSS.  
Note: HH = households.

**Figure 7. Job Portfolio of Rural Households by Region, 2014**



Source: IPSARD's estimate based on 2014 VHLSS.

**In summary, agricultural diversification has been underway, characterized by less dependence on rice and the emergence of nonpaddy crop production, livestock, and aquaculture subsectors.**

However, the difficulty of land consolidation and little interest from farmers in the conversion due to upfront investment related to technology or soil preparation impede the speed and depth of the agricultural diversification and restructuring process. Meanwhile, a variety of constraints to growth include the sector's high vulnerability to climate change, small scale of production operations underpinned by inflexible land market regulations, and low professionalism of a large proportion of farmers.

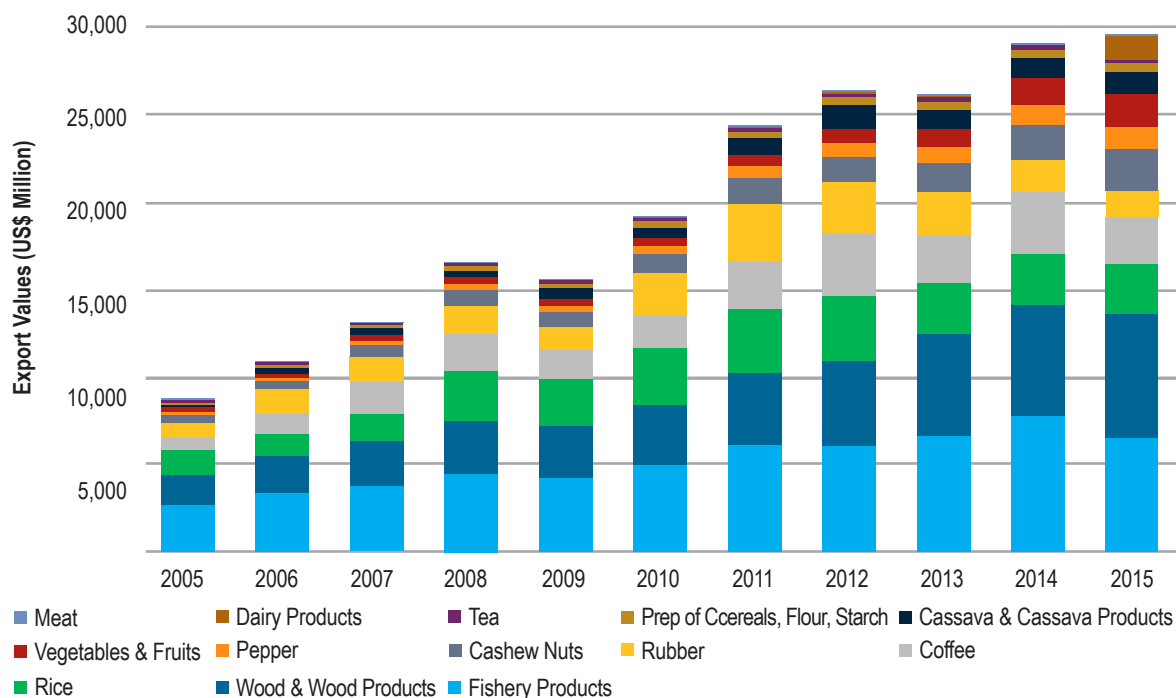
## 2.2 Key Agricultural Products and Value Chains

**Over the past two decades, Vietnam has emerged, seemingly out of nowhere, as a major supplier in international agricultural commodity markets.** Both the scale and the breadth of this trade have been very impressive. From 2005 to 2015, total

agri-food exports increased from US\$9 billion to US\$30 billion (figure 8). In 2017, total agricultural exports increased further, to US\$36 billion. Vietnam now has more than US\$1 billion in trade for eight different commodities (or commodity groups), and it ranks among the top five global exporters of each<sup>5</sup>. Vietnam's farmers have responded exceptionally well to the opportunities provided by (a) a growing global demand for agricultural raw materials and both staple and higher value foods; (b) Vietnam's entry into the World Trade Organization and into various trade agreements; (c) an improved domestic environment for business and investment; (d) the country's diverse agro-ecological conditions; and (e) Vietnam's favorable geography near rapidly growing middle-income countries. Particularly impressive is the recent increase in export of horticulture products—from the very low values in the 2000s to above US\$3 billion in 2016. In 2017, the export of dragon fruit alone exceeded US\$1 billion.

<sup>5</sup> These commodity groups include rice, coffee, pepper, rubber, cashew nuts, cassava, fishery products, and horticulture.

**Figure 8. Vietnam: Agri-Food Exports, 2005–2015**



Source: General Statistics Office, 2016.

**Yet the picture of Vietnam’s agri-food trade is not all positive.** Most of Vietnam’s expanding export subsectors have failed to take full advantage of the market opportunities for generating increased value and, in some cases, failing to have a transformative impact on the farmers and communities that serve as their foundations. Vietnam has been cost competitive when it comes to crop-based commodities but they were sold at a discount as a result of several factors, including (a) issues related to lower or inconsistent quality or food safety; (b) the incidence and perceived risk of contract nonfulfillment by Vietnamese suppliers; (c) real or perceived risks regarding the environmental footprint of Vietnamese commodities; and (d) intense competition among Vietnamese exporters, which has enabled international buyers to negotiate prices downward. In the structure of

agri-food exports, food accounts for only about 10 percent. Addressing these weaknesses would require more public investments in food safety, changes in the state management to facilitate environment-friendly production practices, closer collaboration between farmers and agribusiness, and availability of more flexible finance products along the value chains, which are currently largely missing.

**Irrespective of the above weaknesses, Vietnam’s agricultural export performance has been impressive.** It was largely possible due to the increased professionalization of farms and a greater interest by large foreign and local firms in agribusiness. More and more farms in Vietnam adopt sustainable farming practices such as “Three Gains and Three Reductions”<sup>6</sup> and “One Must and Five

<sup>6</sup> The “Three Reductions, Three Gains” (3R3G) project targets rice farmers in the Mekong River Delta region to reduce use of seeds, nitrogen fertilizer, and pesticides, while improve farmers’ health and protect environment.

Reductions”<sup>7</sup> in paddy production, in production of vegetables, fruits, livestock and aquaculture products, and organic production. Increasing numbers of farms are organizing into collaborative groups and cooperatives to achieve economies of scale and enter contract farming arrangements with food processors and exporters. It is worth noting that the organization of smallholder farmers is still at an incipient stage. Agricultural cooperatives or farmers’ organizations face severe challenges, such as weak management, unprofessional accounting practices, and a lack of supervision.

**Vietnam has a large number of agricultural cooperatives and production groups engaged in agricultural activities, mainly activities related to the provision of inputs and other extension services.**

According to the Vietnam Cooperative Alliance (VCA), there were 21 agricultural cooperative unions, with 11,688 agricultural cooperatives serving more than 4 million members by the end of 2017. There are around 2,020 crop cooperatives, 536 livestock cooperatives, 120 forestry cooperatives, 510 aquaculture cooperatives, 340 clean water and sanitation cooperatives, and 6,100 cooperatives with multiple purposes. Agricultural cooperatives are currently transforming by providing more marketing and value-chain related services to members instead of limiting themselves to the provision of basic seeds or fertilizers. While important players, agricultural cooperatives are reportedly hampered by low levels of managerial capacity, weak accounting, and small size. Most of the agricultural cooperatives are too dispersed and underfinanced to promote linkages in production and trading.

**Increasingly, smallholder farmers are organizing themselves in the form of “collective production groups.”** VCA reported the existence of 80,000 such groups that serve more than a million members,

with an average of 14 members per group by the end of 2017<sup>8</sup>. These groups, which are in most cases engaged in agricultural production and marketing, are less formal but also more flexible than agricultural cooperatives.

**With annual sales exceeding US\$3 billion, Vietnam is one of the world’s leading rice exporters.**

The Mekong Delta accounts for more than half of national production and 90 percent of exports. Rice production in Vietnam is highly fragmented. Most production is carried out on a small scale by small farming households, without wide adoption of production and sale cooperation models. There is a distinction between subsistence-oriented production and commercial production. Of the 9 million rice growing households, about 300,000 households account for most of the country’s exports, indicating greater concentration in commercial rice production.

**Vietnam is the world’s largest Robusta coffee producer, accounting for nearly 60 percent of global Robusta exports.**

Vietnam features the world’s highest yields (annual yields of about 1.5 million tons) and annual exports (US\$2.67 billion), which provide benefits to more than 460,000 farmers and more than a million seasonal workers. Coffee production in Vietnam comes almost entirely from smallholder farmers who own approximately 1 ha of land in the Central Highlands region. Most of the coffee farmers manage the majority of farming activities through family labor (with the exception of harvesting). With weak presence of local collectors and a lack of farmer organizations or agricultural cooperatives to organize the aggregation and selling activities, farmers usually sell directly to exporters. But the supply chain stays efficient due to high competition between locally owned and multinational exporters. Coffee quality during recent years has met international standards.

<sup>7</sup> The “One Must and Five Reductions” is a technology package that recommends the use of certified seeds, and reductions in seed rate, nitrogen application, pesticide use, water use, and post-harvest losses.

<sup>8</sup> Interviews by World Bank mission team with VCA in November 2017.

However, raw coffee with a low market price accounts for 89 percent of total coffee exports, resulting in low total export value of coffee sector.

**Domestic production of cashew nuts reached 345,000 tons in 2015, with an export value of US\$2.5 billion.** It is worth noting that cooperation among farmers and between farmers and enterprises is not established; it is difficult for cashew growers to access credit. Due to the advanced domestic processing capacity and the muted supply response of local farmers, partially due to conversion of cashew areas to black pepper and fruit trees, Vietnam increasingly relies on the import of raw cashew nuts, mainly from Africa, to process them. Imported raw cashew has accounted for about half of exported processed cashew in recent years. Production of rubber was 1,017,000 tons in 2015, with an export value of US\$1.53 billion. China is still the largest importer of rubber from Vietnam (Ministry of Agriculture and Rural Development, Department of Crop Production, 2017).

**Among agricultural subsectors, crops still account for the majority of output value; however, significant growth has been observed in aquaculture.** Key aquaculture species include brackish-water shrimp, sutchi catfish, and tilapia. According to the Ministry of Agriculture and Rural Development, Directorate of Fisheries, by the end of 2015, the total area for shrimp culture nationwide reached 680,000 ha (the Mekong delta region alone accounted for 621,000 ha, equivalent to 91.2 percent) for a total yield of nearly 630,000 tons (the Mekong delta region accounting for 484,000 tons, equivalent to 81 percent). An estimated 320,000 households and farms remain active in the Mekong Delta shrimp aquaculture industry, either on an intensive or extensive basis. That said, shrimp growing and processing are becoming increasingly integrated there.

**Currently, the provinces are actively developing the value chain of sutchi catfish.** Farmers are

encouraged to join agricultural cooperatives and then associate with input providers, processors, and traders. By the end of 2016, the sutchi catfish culture, by continuously targeting high productivity and quality, enlarged the area of sutchi catfish culture to 5,050 ha with an output of 1.2 million tons and an export value of US\$1.71 million (an increase of 13 percent over 2015) and continued to maintain the status of the leading country in export of sutchi catfish in the world.

**The growing share of the livestock sector was a major contributor to the expanded operation of medium- and large-size farms.** Since the mid-2000s, the number of households raising fewer than 10 pigs has declined by 39 percent while the number raising 50 or more has increased 80 percent. Similarly, in the poultry sector, only a small proportion of medium and large farmers were involved in contract farming arrangement with processors, while most rural households keep the production small scale and a side agricultural activity (World Bank, 2016).

**Overall, the agriculture sector has become increasingly diversified and integrated into global value chains, with more smallholders joining modern food value chains to serve demanding local and global customers.** Farmers are increasingly eager to join cooperatives and turn into rural entrepreneurs and high-tech farmers. With agricultural value chains becoming more sophisticated and complex, flexible and affordable financial instruments are required.

### 2.3 Access to Finance for Farmers and Agribusinesses

**Access to finance for smallholder farmers in Vietnam is limited.** According to the FINDEX 2017 data (World Bank 2018), 24.6 percent of rural adults have an account at a financial institution, compared to 30.0 percent nationally and 68.7 percent for rural adults in East Asia Pacific countries (excluding high income countries). Only 2.3 percent of rural adults



have mobile accounts<sup>9</sup> (e-wallet), lower than the already very low national average of 3.5 percent. Though 50.9 percent of rural people borrowed money over the past year, less than half of those borrowed from formal financial institutions. The others resorted to informal channels such as family, friends, or private informal lenders. Overall, 23.9 percent rural population borrowed from a formal financial institution. 9.7 percent of rural population borrowed to start, operate or expand a farm or business in 2017, higher than the percentage of 8.2 in 2014. Findex 2014 data shows that among those who worked in agriculture, only 3.1 percent have purchased agriculture insurance.<sup>10</sup>

**Access to finance is the single biggest obstacle enterprises face in operation and expansion**

according to business owners and top managers polled in the World Bank Enterprise Survey in both 2015 and 2009 (by 22 percent and 25 percent of firms, respectively). Specifically in the 2015 survey,<sup>11</sup> agribusinesses had the highest percentage of firms identifying access to finance as a major constraint compared with firms in other subsectors of manufacturing or service. Almost all loans to agribusinesses require collateral (93.4 percent), similar to the collateral requirement level for firms in other sectors. However, agribusinesses are required to provide 2.7 times the loan amount as the value of collateral (or loan amount is only 37 percent the value of collateral). This is significantly higher than that for general businesses, which usually are required to pledge twice the value of loan amount (or 50 percent loan to value of collateral). With the difficulties of accessing finance, the majority of agribusiness's investments (56.7 percent) are financed internally

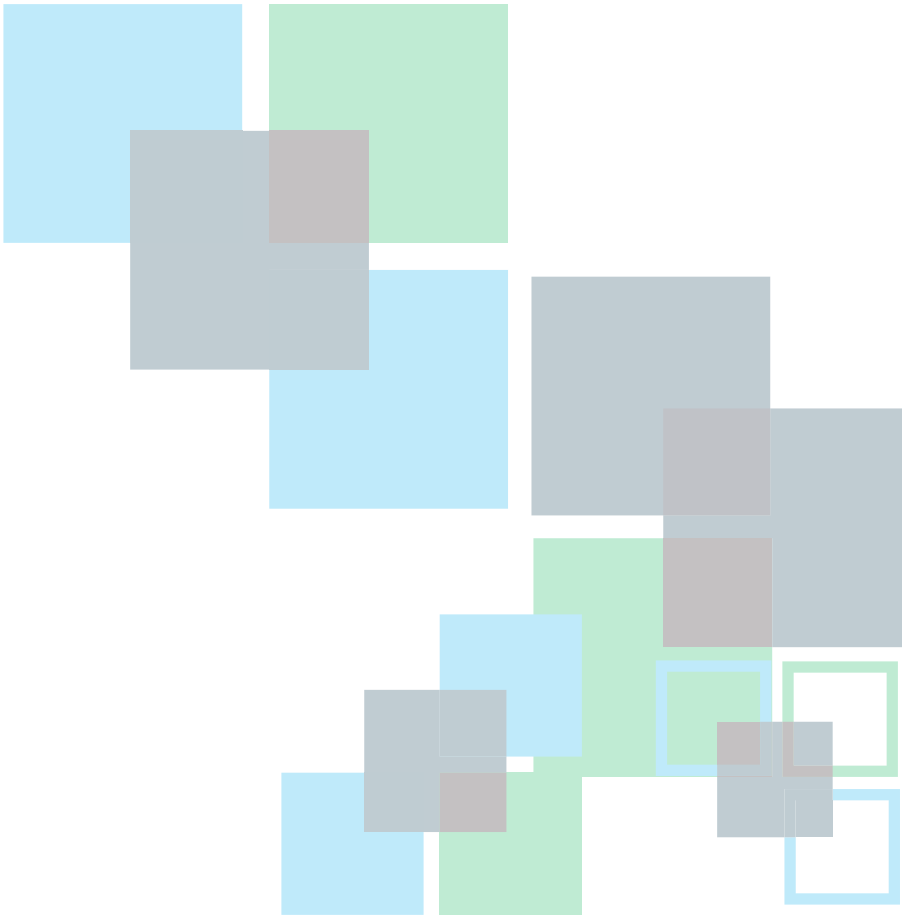
(using its own resources). Nevertheless, almost half of agribusinesses use banks to finance working capital, and 26.7 percent of their working capital is financed by banks, at a level higher than that of enterprises in other sectors. At the same time, it should be noted from the previous section, that smaller rural households have other sources of income to finance their agricultural activities, thus needing or relying less on credit from financial and nonfinancial providers. On the other hand, medium and larger commercial farmers are more specialized and need financing to grow and transform their business. Most credit tends to be short term (under a year) and there is a limited supply of longer-term credit to invest in equipment, machinery, and long-term assets needed for business expansion.

**Agricultural cooperatives have limited access to credit from credit institutions due to the lack of collateral and effective business plans.** Only one-third of cooperatives can access credit, with an average loan size of 100–500 million VND (an equivalent of US\$5–23 million). Very few cooperatives involved in value chains can obtain loans in the amount of 15–20 billion VND. Banks and other financial providers face constraints in lending to these entities as in many cases they cannot rely on the financial information these entities can provide and, also, because these entities in many cases cannot provide the collateral needed to back up a loan as their assets are rather small. To deal with this situation, farmer organizations often provide collateral owned by their individual members to obtain loans, which is suboptimal and may create moral hazard.

<sup>9</sup> This is the percentage of respondents who report personally using a mobile money service in the past 12 months. Since Vietnam's current legislation does not have either a definition of or regulation for "mobile accounts," the number refers to the usage of e-wallet.

<sup>10</sup> The most recently available Findex 2017 (World Bank, 2018) data doesn't provide data on the percentage of the rural population that has purchased agriculture insurance.

<sup>11</sup> In the World Bank Enterprise Survey 2015 in Vietnam, business owners and top managers in 996 firms were interviewed from November 2014 through April 2016. Thirteen percent of those firms are involved in the food sector. Statistics referred to below are representatively weighted.





## 3. Supply of Agriculture finance

### 3.1 Overview of Agriculture Finance Market

“Agriculture credit” referred to in this report encompasses loans for agricultural production, as well as loans for agricultural processing and agricultural trading. Vietnam’s agriculture sector is moving from raw agricultural production to a value-added agricultural value chain. This definition helps reflect and capture lending for all stages of the agricultural value chains, ranging from production, to harvest, processing, sales, and so forth. The State Bank of Vietnam (SBV) provides data on credit to the agriculture sector and rural development. Key categories taken into consideration as agriculture credit in this report include crop production, livestock, aquaculture, fishing, forestry, and purchase/process/preserve/consume agricultural, aquaculture, and forestry products. A full listing of loan purposes identified by SBV as credit to agriculture sector and rural development is included in the Annex 2.

**As of 2017, the total outstanding loan portfolio to agriculture and rural development was 1,310,832 billion VND (around 56.7 billion USD), accounting for over 20 percent of total loans outstanding to the economy.<sup>12</sup>** Excluding credit to rural development such as construction of rural roads or electricity stations, credit specific to the agriculture sector reached 734,489 billion VND, with a significant increase of more than 30 percent from 2016. Those loans have served almost 3 million households (out of 16 million rural households, see table 6) and more than 70,000 businesses or cooperatives. More than two thirds of the credits to the agriculture sector were short-term. Noncollateralized loans account for 16.8 percent of the total outstanding loan portfolio to agriculture and rural development.

**Data from the SBV indicate that the average nonperforming loan (NPL) ratio of the credits to the agriculture sector in 2017 was below 2 percent, similar to the level observed over the past five years.** The low NPL ratio can be attributed mainly to three reasons: (a) financial institutions tend to only lend to less risky clients, such as large agribusinesses with sound business plans or commercial farmers doing relatively large-scale farming; (b) “red book,” the land use right

<sup>12</sup> Consolidated credit data reports obtained from SBV, 2013-2017.

certificate, is the most widely accepted and almost sole collateral accepted by financial institutions. Farmers and owners of agribusiness repay loans cautiously to avoid the risk of losing the land that is considered an essential part of household assets; and (c) a state-owned asset management company, Vietnam Asset Management Company, helps financial institutions, especially state-owned banks, recover defaulting loans. Among the subsectors within agriculture, aquaculture with its vulnerability to disease and natural disasters, has shown the highest NPL ratio. Aquaculture loans have relatively high NPL ratio. Loans to support catfish breeding had a NPL ratio of 4.1 percent and the highest percentage of debt with adjusted terms at almost 9 percent in 2016.

**During 2013–2017, loans to the livestock sector and agriculture processing and trading experienced a significant increase, which is consistent with the booming growth of these sectors.** Loan portfolios on livestock and agriculture processing and trading have more than doubled in five years, from 86,740 to 183,643 billion VND, and 77,335 to 320,171 billion VND respectively (figure 9). Loans to agriculture processing and trade account for the largest share of the total agriculture lending portfolio, mainly due to the large size per loan. Though the total loan amount for crop production has increased over the years, its share in the overall agriculture lending portfolio has declined from 28 percent in 2013 to 22 percent in 2017. The aquaculture sector has enjoyed the lowest level of increase on total loan amount, and its share has declined from 9 percent to 4 percent. The share of lending to the forestry sector remains low, around 1 percent over the past years.<sup>13</sup>

**Among the crop production subsector, loans to coffee producers have the largest share (25 percent), followed by loans to food crops and rubber** (figure 10). However, within agricultural processing and trading, outstanding loans on paddy purchasing, processing, preserving, and trading

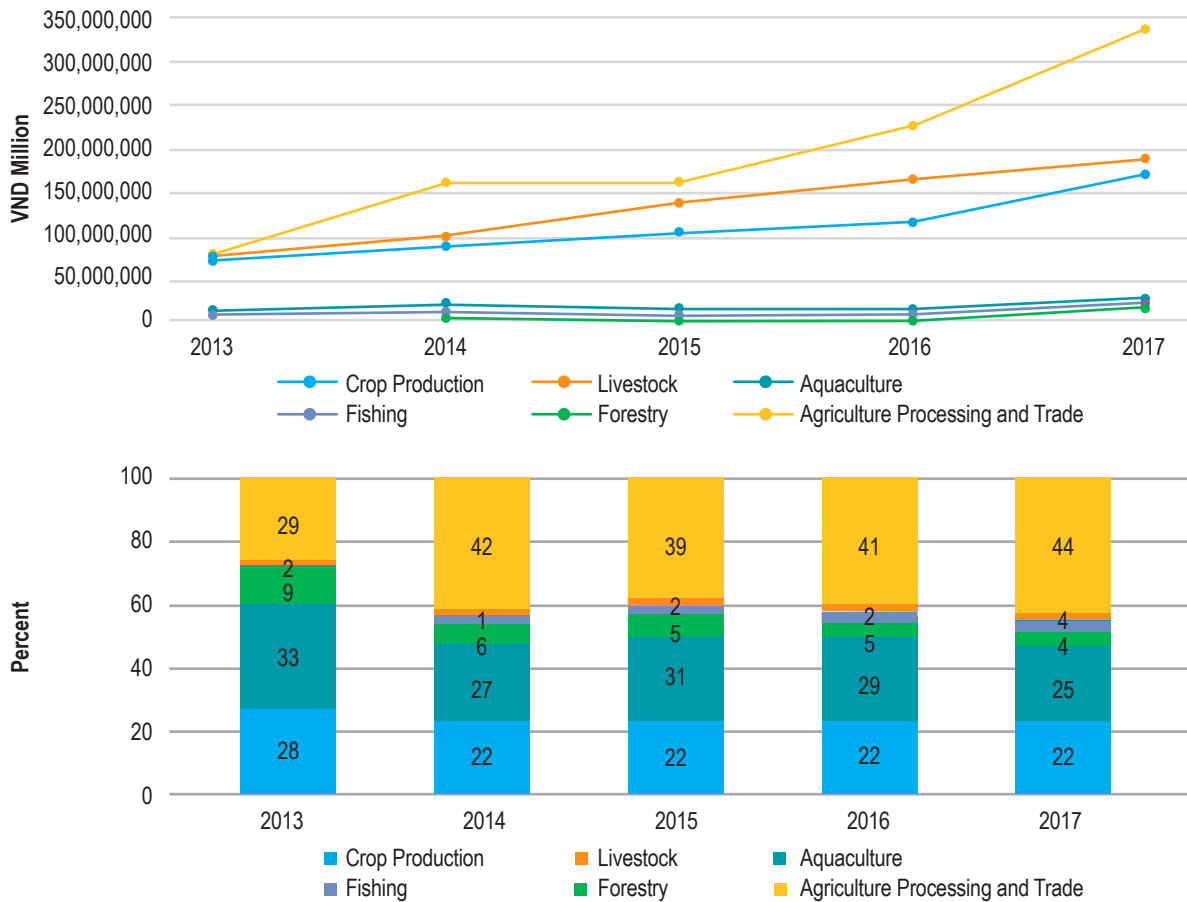
account for the largest share (25 percent), followed by coffee (19 percent). It's worth noting that loans for cashew production are minimal at 2 percent of all crop production loans. Nevertheless loans to support processing and trading of cashew products are 8 percent of all agricultural processing and trading loans, with a total amount of 14,684 billion VND. Vietnam has been the world largest cashew nut exporter since 2006. With production of 400,000 tons of cashews per year and processing capacity of 1.2 million tons, it has been dependent on raw cashews from other countries. About two thirds of the demand for processing are imports, mostly from Africa, especially Côte d'Ivoire.

### 3.2 Key Market Players, Products, and Lending Performance

**Lending to the agriculture sector has been concentrated in a few public financial institutions.** According to the most recently available data from SBV, public financial institutions contribute almost three-quarters of the total outstanding loan portfolio on agriculture and rural development. Agribank holds a dominant position, with approximately half of the market share. In contrast, lending from private commercial banks only accounts for 20 percent (figure 11). Distribution of market share among public and private financial institutions has been similar to the level of year 2017 over the past five years. Nevertheless, it is worth noting that the agriculture lending portfolio of private commercial banks has been expanding rapidly, with a growth rate higher than that of public financial institutions recently. People's Credit Funds (PCFs) also stand out with a 4 percent share of the total lending to agriculture and rural development, especially taking into account its relatively small scale. Additionally, all types of financial institutions provide both short-term (less than one year) and medium- and longer-term (more than one year) credit to agriculture. Most recently available SBV data from October

<sup>13</sup> Consolidated credit data reports obtained from SBV, 2013-2017.

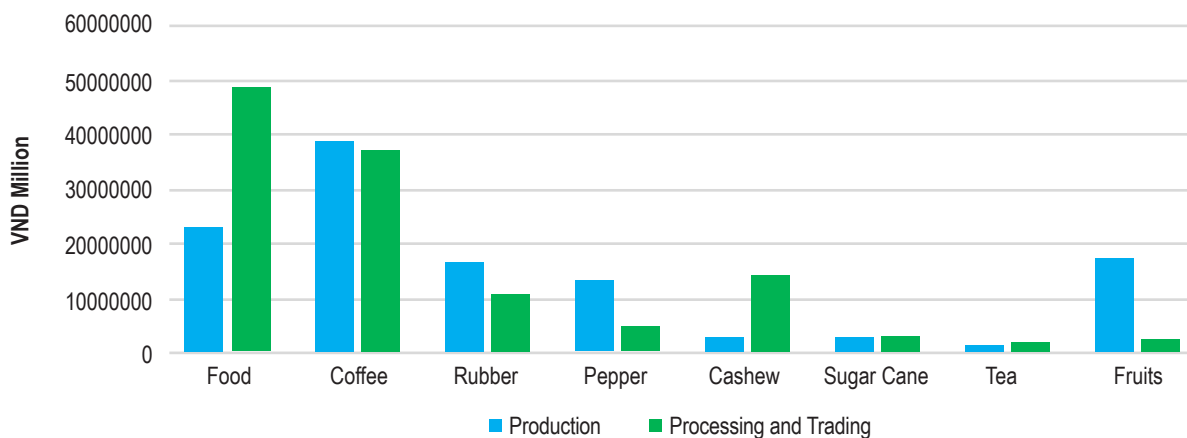
**Figure 9. Agriculture Lending Portfolio and Composition, 2013–2017**



Source: SBV as of December 2017.

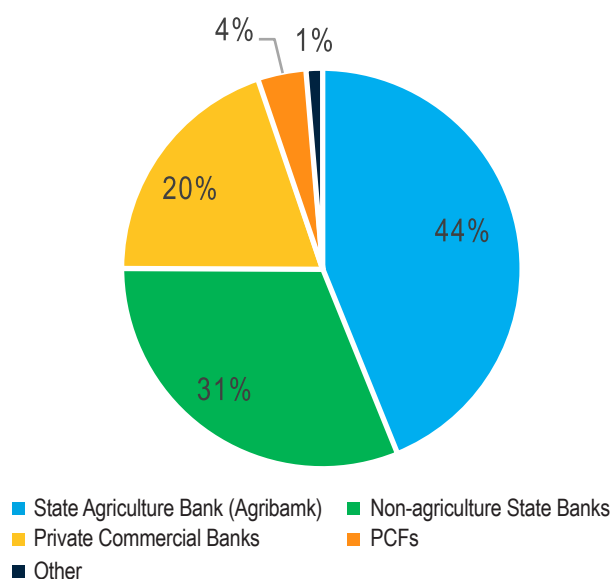
Note: Lending statistics to forestry is not available in 2013.

**Figure 10. Comparison of Loans for Production and Processing/Trading Per Crop (Outstanding Loan Portfolio Size by 2017)**



Source: SBV as of December 2017.

**Figure 11. Share of Total Lending to Agriculture and Rural Development Among Different Types of Financial Institutions**



Source: SBV, data as of Dec 2017.  
 Note: Agribank = Vietnam Bank for Agriculture and Rural Development

2017 show that private financial institutions have more than 60 percent of their outstanding lending portfolio in agriculture and rural development as short-term (figure 12). Overall, the majority (57 percent) of the credit to agriculture and rural areas is for less than one year, which may be insufficient to meet farmers' or agribusinesses' demand for long-term investment loans during agricultural transformation.

**The main institutions providing financial services to rural areas are Agribank, VBSP, the network of PCFs, and other microfinance institutions (MFIs).** Agribank focuses on middle-income and high-income clients in rural areas, while VBSP, MFIs, and PCFs focus more on low-income clients and the poor. Agribank and VBSP have leading positions, representing together 55 percent of the sources of rural credit as of December 2017. Agribank, Bac

A Bank, Saigon Hanoi Commercial Joint Stock Bank (SHB) and the Cooperative Bank of Vietnam (Coopbank) hold 40 percent of the outstanding credit portfolio to the agriculture sector. To foster the agricultural lending activities of these entities, SBV helps refinance those banks when natural disasters are followed with significant NPLs. As an additional incentive, SBV reduces the reserve ratio by 1 percent for those banks.

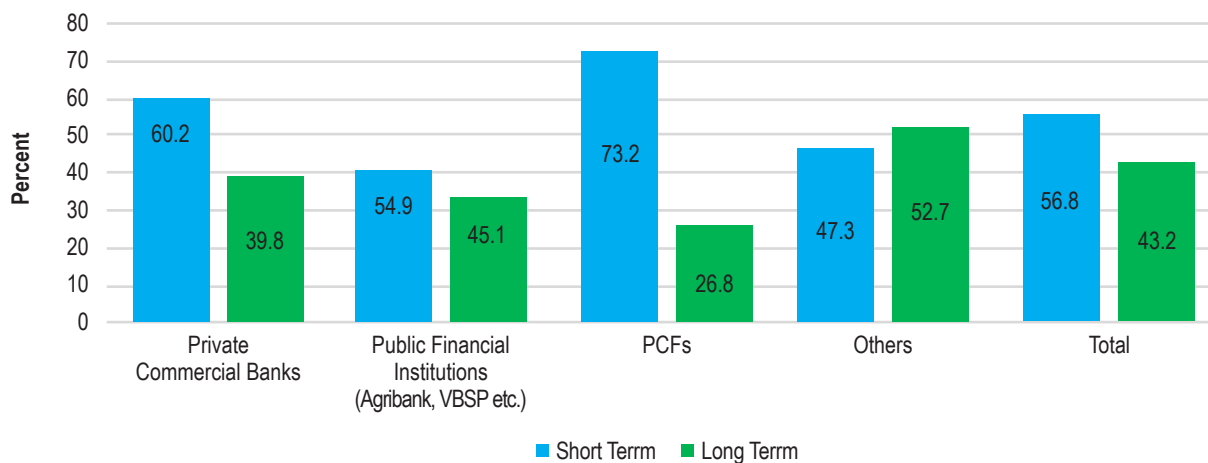
**The nonbank credit institution industry reflects various country-specific features.** In particular, microfinance lending (including facilities offered by MFIs and VBSP) is partially intertwined with the system of local government through the involvement of the Peoples' Committees and socioeconomic organizations such as the Women's Union, the Farmer's Union, the Veterans Association, and the Ho Chi Minh Communist Youth Union. Those institutions help identify and approve potential borrowers and assist with supervising the repayment and management of their facilities.

**There are a number of credit institutions that are not supervised under the Credit Institutions Law 2010.** These include various nongovernment organizations providing microcredit (for example, the Capital Aid Fund for Employment of the Poor, Capital Aid Fund for Employment of the Poor (CEP); Binh Minh MFI), rotating savings and credit associations, and different types of moneylenders (such as pawn shops). The system of nonbank credit institutions is further complemented by VBSP, which is a state-owned institution and excluded from prudential regulation and supervision exercised by SBV.

### 3.2.1 Agribank

**Agribank is the largest bank in the country in terms of assets, capital, customer base, and network coverage.** With more than 2,300 branches and transaction offices throughout all parts of the country, it has by far the largest network of bank branches in Vietnam. Large branch networks in rural

**Figure 12. Share of Short-Term and Long-Term Loans by Institution Type**



Source: SBV, data drawn in Oct 2017.

Note: Agribank = Vietnam Bank for Agriculture and Rural Development; PCFs = People's Credit Funds; VBSP = Vietnam Bank for Social Policies.

areas help it stay close to target clients and develop long-term and trustworthy relationships with farmers. With a mission to support agricultural and rural development, Agribank now serves more than 4 million farming households. The long-standing stable clientele is of great value to Agribank. Agribank originally specialized in lending to households in rural areas and small- and medium-size enterprises engaged in agricultural or nonagricultural enterprises, but now the bank has expanded its branch network to the cities to seek greater market shares in the urban segment of small and medium enterprises.

**In spite of recent endeavors to penetrate urban areas, Agribank has also been trying to keep its commitment to agricultural and rural development.** It has signed interagency agreements with the Vietnam Farmers Association Central Committee, Vietnam Women's Union Central Committee (VMUCC), and others, to boost the investment in agricultural restructuring and clean agriculture. The 2016 Agribank annual report shows that it is the single largest lender supporting agricultural and rural development. The amount of outstanding loans to agriculture sector in 2016 was 514,154 billion VND (74 percent of total portfolio),

an increase of 15.6 percent from the previous year, with an NPL ratio of less than 2 percent. Other relevant data include a capital adequacy ratio of 11.05 percent, before tax profit of 4,186 billion VND, and a short-term fund/long term lending ratio of 36.3 percent.

**The Ministry of Planning and Investment has proposed that Agribank be equitized by 2020 as part of the restructuring of the financial market.** This initiative is a very important step considering Agribank's strategic position in the agricultural lending market. Its partial privatization (equitization) can be expected to enhance the conditions for a more commercial operation of the agriculture finance market. The equitization aims to achieve liquidity and improve the operating efficiency of Agribank, while gradually liberalizing the banking sector and encouraging foreign investment. Agribank is currently adopting measures on human resources and information-technology systems to improve operating efficiency and actively looking for a strategic investor. To be successful, it will be important that the partial privatization of Agribank be accompanied by a reform of agriculture finance public policies. The reform will ensure that

subsidies (interest rate subsidies) are channeled transparently and that Agribank is allowed to determine its own prices for the products based on its cost and market conditions. To make it more attractive for outside investors, the equitization of agricultural banks such as Agribank is often accompanied by restructuring plans focusing on areas such as (a) improving corporate governance; (b) improving management; (c) upgrading systems, such as information technology, management information, and risk management; (d) upgrading human resources systems, policies, and functions; (e) improving operations, focusing in particular on improved quality and speed of serving clients; (f) reviewing product offerings and revenue creation products and services; (g) improving operating efficiencies (targeting a lower cost-to-income ratio)

### **3.2.2. Vietnam Bank for Social Policies**

**VBSP was established to respond to the government's mandate to differentiate commercial credit and policy credit and establish a dedicated channel to provide financial support to targeted social groups.** Its establishment followed Decision 131/20002/QĐ-TTg dated April 10, 2002, by the prime minister. VBSP has an extensive network nationwide, with branches in almost all communes, and acts as the government's credit-provision facility and offers credit directed by policy. VBSP is fully sponsored by the government and is duty free, ring-fenced from the state budget, and free from insured deposits, it also does not have to maintain a reserve requirement ratio. Apart from the 15 percent of capital provided by the state budget, VBSP mobilizes a large amount of funds from domestic and foreign organizations and individuals, issues government-guaranteed bonds, and receives 2 percent deposits from the state-owned credit institutions with the interest payment paid by VBSP.

**Among the 3 million poor and near poor households in Vietnam, about 2.5 million households have loans with VBSP.** The total current asset amount of VBSP is 171 trillion VND (around US\$7.5 billion) of which the majority is loans. Clientele include poor households, near poor households, farming households that do not have access to water supply and sanitation facilities, ethnic minorities, and traders. VBSP currently serves 8.3 million customers, most of which are rural. The purpose of the loans varies across different credit programs. More than 70 percent of the loans provided by VBSP serve production and business purposes, 15 percent are for construction of clean water facilities and environmental sanitation projects, nearly 10 percent support school fees for students, and 5 percent support housing construction and other purposes. Treasury revenue and fees generated from payment services are minimal. Its main source of income still comes from lending. VBSP plans to diversify services and products such as saving, payment, and transfer to clients in the future.<sup>14</sup>

**VBSP's current average loan size is 25 million VND (around US\$1,000) with the maximum loan amount at 50 million VND (around US\$2,000).** The maturity of agricultural loans is in line with agricultural production and can be as long as 5 years depending on the needs of farmers. For a number of purposes, the loan maturity can be extended to 20 years (for example, loans to afforestation and forestry projects). The interest rate of loans disbursed by VBSP is 1.2 percent per annum (p.a.) for ethnic minorities, and the maximum lending rate is 9 percent p.a. for small- and medium-size enterprises (SMEs).<sup>15</sup> The average interest rate for all credit programs is 6 percent, and the cost of credit is approximately 4.3 percent institutional wise. Current overdue debt ratio is 0.4 percent, with restructured debt at 0.41 percent.

<sup>14</sup> Data obtained during mission meetings in November 2017

<sup>15</sup> According to Decision 750/QĐ-TTg dated June 01, 2015, of the Prime Minister and Decision 34/QĐ-HĐQT dated April 26, 2014, Decision 71/QĐ-HĐQT dated August 03, 2015, of VBSP.



**Loans are disbursed directly to households, though VBSP also entrusts some tasks within the lending process to four sociopolitical organizations<sup>16</sup>, by establishing savings and credit groups (SCG) consisting of 5 to 60 members living in the same area.** In the lending process, the SCGs are entrusted by the VBSP to collect monthly interest and deposits from members and conduct some other tasks in the lending process, while individuals still have the responsibility to repay the principle loan. The SCG is not responsible for repaying the loan when the borrowers fail to do so. Each SCG has its own management board consisting of two people (the head and deputy head) selected by its members. The operations of the group are subject to the direction, monitoring, and inspection of the Commune People's Committee and trusted sociopolitical organizations. VBSP pays fees to the entrusted socio-political organizations and commissions to the SCG's Management Board.

### **3.2.3. Vietnam Development Bank**

**The main duty of the Vietnam Development Bank (VDB) is to mobilize and receive capital from domestic and foreign organizations to implement investment and development credit for the state.** Sources of capital include the state budget, funds from capital markets domestically and internationally, and ODA (official development assistance). Supporting agriculture and rural areas remains one of its focuses as detailed in the Strategic Development of Vietnam Development Bank through 2020, with a vision towards 2030.

**VDB currently provides loans to 352 projects in the agriculture sector under two forms: state investment credit and relending ODA funds.** Different types of institutions, including social groups, SMEs, and state-owned enterprises

implement those projects. Total loan disbursement amount for the 352 projects is around 54,000 billion VND so far.

**Agriculture and rural development is one of the three strategic sectors covered by the VDB state investment credit provided by VDB.** Those investment credit loans cover aquaculture projects, projects on plant varieties, animal breeds and forest tree varieties, and projects related to livestock and poultry slaughtering, as well as investment projects in industrial salt production. In the case of investment credit, lending interest rates for each period are set by the Ministry of Finance (MOF) from 0 percent p.a. (for canal solidification program) to 15 percent p.a. (for other projects).<sup>17</sup> In the case of relending ODA funds, credit terms depend on sub-loan agreements, relending authorization contracts signed with the MOF. According to the investment law, from January 2017, VDB is no longer to provide loans to cooperatives.

**Responding to the constraints of getting access to finance after the financial crisis, VDB started providing guarantees for SMEs borrowing from commercial banks in 2009.** The government provided VDB with 450 billion VND to establish the guarantee fund. The guarantee covered 100 percent of the loan amount, which could not exceed 90 percent of the cost of the project or production and business plan. The guaranteed loan for the implementation of the production and business plan does not require collateral. The fee to obtain guarantee was 0.5 percent p.a. of the guarantee amount, which is borne by the guaranteed party, but not by the guarantor. Disputes between VDB and commercial banks arose on the contingency of payment when loans become overdue. The guarantee facility was discontinued after a few severe disputes.

<sup>16</sup> Women's Union, Farmer's Union, Youth Union and War Veteran's Association.

<sup>17</sup> Before 2012, lending interest rates remain unchanged for the whole lending period; from 2012 to May 2017, lending interest rates change based on disbursement schedule; from May 15, 2017, until now, lending interest rates apply to the project's outstanding credit upon the interest rate adjustment. Loan terms of 5–15 years will be applied to a loan with maximum value of 70 percent of fixed assets of the project.

### **3.2.4. The network of People’s Credit Funds and the Cooperative Bank of Vietnam**

**PCF, a form of financial cooperative, was founded in 1993 to provide financial services to communes.** By 2016, there were more than 1,177 PCFs in over 10 percent of communes, serving approximately 1.7 million members, of which about 50 percent are considered to be from lower-income households. The Central People’s Credit Fund (CPCF) was established and operated as a central institution of the PCF which supports the PCF network. PCFs have been following the basic principles of cooperatives (self-help and mutual support) with less than 15 percent of their capital funded from external sources (mainly from the Central People’s Credit Fund).

**The network of PCFs has expanded rapidly throughout Vietnam in the past two decades.**

Currently, the total outstanding loan portfolio to agriculture and rural development from PCFs account for 4 percent of total lending in this area by all types of financial institutions. About 70 percent of current PCFs’ total outstanding loan portfolio to agriculture and rural development are short term. The PCFs located in rural areas have important advantages in terms of their close relationship with and knowledge of their members, which allow them to design adequate financial services and to show a certain degree of flexibility toward their members, especially in cases of distress.

**In spite of these advantages, the development of PCFs is hampered by the low level of professionalization of their boards and staff and, also by their small size, which limits their capacity to diversify their services and to achieve economies of scale.** In addition, PCFs face constraints to their growth as they do not have access to longer-term funds that would enable them to serve their members’ demands for investment loans.

**Coopbank, which operates as a public commercial bank serving PCFs, individuals, and firms, currently plays the role of integrating and supporting the PCF network.** Activities in this regard include the standardization of procedures and reporting and the provision of a refinancing facility, as well as the operation of a stabilization fund. As of today, PCFs make little use of the refinancing facility due to cost considerations (they can access financing from members at a lower cost than they can from Coopbank). Coopbank has initiated a pilot program to provide larger loans to clients of PCFs using a syndicated loan approach, which appears to be promising. Coopbank could, in addition, probably play a bigger role in supporting the PCF network if it were to offer longer-term financing to these entities at competitive rates.

**Coopbank currently receives support from a project financed by the Canadian government and executed by Desjardins International.**

The project, which was launched in 2017, aims to increase the capacity of Coopbank to provide support and oversight services to PCFs. PCFs are then expected to provide financial products and services that are adapted to the needs of rural and agricultural clienteles in a profitable and secure manner. The project intends to pilot an approach to strengthen 75 PCFs before scaling up to the whole sector. Another technical support project—Project for Digitalization of Microfinance—sponsored by MedLife fund, also assists the PCF system in developing digital financial products.

**The Cooperative Development Assistance Fund in Vietnam addresses the difficulty of accessing credit by cooperatives.** The Cooperative Development Assistance Fund system is present in 47 out of 63 provinces and cities with a total operational capital of 1,663 billion VND. It supports<sup>18</sup> and contributes to improving the management

<sup>18</sup> According to Decision No. 23/2017 / QĐ-TTg dated June 22, 2007, of the prime minister amending and supplementing some articles of Decision No. 246/2006 / QĐ-TTg dated October 27, 2006, the establishment of Cooperatives Development Assistance Fund and issuance of regulations on credit guarantee operation and post-investment interest support from the Cooperative Development Assistance Fund.

capacity of the Cooperatives Union of cities and provinces. At the same time, the Cooperative Development Assistance Fund assists cooperatives and cooperative unions through investment loans, credit guarantees and post-investment interest support. However, the operations, performance, and outreach of the Cooperative Development Assistance Fund is unclear, as information was not collected during the field trip for this diagnostic.

### 3.2.5. Microfinance institutions

The vast majority of MFIs serve a relatively small number of clients, ranging from a few thousand to 20,000 people, the exception being the Tao Yeu May Fund, which serves more than 73,000 clients and CEP with about 193,000. The loan portfolio is also relatively small, about US\$1–3 million on average, except for Tao Yeu May, with US\$21 million, and CEP, with over US\$44 million. **The loans granted by these institutions are mainly in rural areas and mostly for women** (who make up nearly 94 percent of all borrowers), while the average loan size ranged from US\$150 to US\$400. Interest rates range from 0.5 percent to 2.5 percent per month, at an average of about 1 percent per month. Most of the MFIs are not under the supervision of the SBV, except the Tao Yeu May Fund and CEP.

**While a large number of MFIs endorse the mission to serve rural lower-income households, the limitations on mobilizing enough voluntary savings and investments from the private sector impede their growth.** This further leads to their dependence on concessional funds from nongovernmental organizations and international donors. In addition, there is a lack of competition in the MFI market, with VBSP being the dominant player (Vietnam Microfinance Working Group 2013).

### 3.2.6. Bank for Investment and Development of Vietnam (BIDV)

Established as the Bank for Construction of Vietnam in 1957, BIDV was equitized in 2012 and officially transformed into the Joint Stock Commercial Bank for Investment and Development of Vietnam. According to the BIDV 2016 annual report, as of December 2016, its total outstanding loan portfolio reached 751,448 billion VND, an increase of 17.85 percent from 2015, making up 13.6 percent of the lending sector's market share; NPL ratio was controlled at 1.95 percent. Its outstanding loan portfolio on agriculture and rural development currently accounts for 16.90 percent of its total lending portfolio, a slight increase from around 13.76 percent in 2013. Meanwhile, 86.86 percent of BIDV's outstanding loan portfolio on agriculture and rural development is short-term, a level higher than that of other commercial banks (for example, SHB currently has 59.81 percent of loans on agriculture and rural development being short-term).

**BIDV mainly targets medium- and high-income farmers in agricultural lending.** Most of the loans are working capital, and the average loan size is 1 billion VND and can go up to 9 billion VND. BIDV usually charges an interest rate of 6.5 percent p.a. on loans related to agriculture and rural development. Most of the loans are collateralized with the red book land use right certificate. Simple procedures and reasonable interest rates are the main reasons that farmers borrow from BIDV. In the BIDV Dong Thap regional branch, 68 percent of its total portfolio is for agriculture and rural development, with an NPL ratio lower than 1 percent.<sup>19</sup>

<sup>19</sup> Interviews by World Bank mission team with BIDV in November 2017.

Apart from granting direct loans for rural and agriculture development, BIVD also provides loans to refinance existing agricultural loans through a network of 37 financial institutions (including 9 local PCFs) with the revenue of 33,734 billion VND (accumulated from 1997 to 2017). It serves as a wholesale bank for World Bank's agricultural borrowing projects, including Rural Financing Project I, II, III and Vietnam—Sustainable Agriculture Transformation (VnSAT) Project (World Bank, 2015b).

### 3.2.7. Military Bank (MB)

**MB is one of the leading joint stock commercial banks in Vietnam.** According to the MB 2016 annual report, as of December 2016, its outstanding loans reached 150,738 billion VND, up by 24 percent since 2015 and with an NPL ratio below 2 percent. Short-term loans are usually provided to enterprises with an interest rate from 6.5 percent to 8 percent, and medium- and long-term loans up to five years are provided to individuals with interest rates of 9 to 11 percent. For loan sizes below 100 million VND, loans are provided by Mcredit, the consumer financing company jointly established with a consumer finance company and a Japanese bank, Shinsei Bank.<sup>20</sup>

**MB provides loans to support aquaculture, coffee, cashew, and agribusiness development.** Currently agriculture loans account for 13 percent of the total lending portfolio, with an NPL ratio of 1.3 percent, lower than the NPL ratio of the total lending portfolio. Strict selection of clients ensures the low NPL. Red books and receivables are the main collaterals accepted. A limited network of MB locations imposes challenges on disbursement and collection of loans and limits its provision of other financial services in rural areas.

**MB intends to enlarge its network to further meet the needs of clients, especially in remote areas.** However, there are regulatory obstacles from SBV to expanding the physical branch network. MB is seeking branchless banking as a solution by partnering with Viettel, Vietnam's largest mobile network operator. Under the collaborated Bank Plus program, a customer who is both a Viettel subscriber and a MB account holder can utilize services such as money transfer, account checking, money deposit/withdrawal, and payment at transaction points of Viettel, which are more widely present across the country, especially in rural areas. So far, there are 3.4 million subscribers on mobile accounts, among which 3 million are new account openers. Having less reliance on a retail branch network contributes to MB's net interest margins and overall profitability, which are higher relative to its local peers.

## 3.3 Other Mechanisms to Support the Provision of Financial Services to the Agriculture Sector

### Agent banking

**In addition to the Bank Plus Program MB piloted with Viettel, SBV has conducted two other pilot programs exploring the agent banking model through Vietcombank and Vietinbank respectively.** Vietcombank has been partnering with Momo, the flagship brand of start-up M-Service, to provide e-wallet and payment solutions. The Momo e-wallet has a network with 3,000 transaction points, and customers are able to transfer and receive funds and pay for a wide range of services, though the service is mainly focused on airtime top up for now. Vietinbank is trying to collaborate with Vietnam Petroleum Import/Export Corporation (Petrolimex) to use Petrolimex gas stations as agents to provide financial services.

<sup>19</sup> Interviews by World Bank mission team with BIDV in November 2017.

<sup>20</sup> Interviews by World Bank mission team with MB in November 2017.

These pilot agent-banking models help extend the reach of commercial banks to underserved clients, but the expansion to accommodate unbanked customers is limited. Except for services of bill payment, transfer, and cash in/out, agents of commercial banks such as Viettel stores or gas stations cannot conduct account opening or loan assessment in the pilot programs. Though agents can collect documents related to those actions, current know-your-customer provisions require the activation of bank accounts be done in person. **Moreover, the lack of an overarching regulatory framework to guide the market and engender trust among market players impedes agent-banking activities from growing.**

### 3.4 Collateral and Credit Enhancements

Findings from field visits have shown that **virtually the only collateral accepted by financial institutions in Vietnam is the red book land use rights certificate for all types of borrowers, be it producers, input providers, processors, or traders.** As mentioned, this form of collateral has proven to be very effective in Vietnam. While other forms of collateral are also available, they are rarely used.

#### Box 1. Crop Receipts in Brazil

Crop receipts are pledges of future crop production (preharvest finance) for farmers to access credit by pledging their future crop. A good example is the crop-receipt system in Brazil. Although there are benefits to having such a system, it requires a large number of preconditions, since the pledge is on collateral (the future crop) that does not exist at the time of granting the loan. So, there are a lot of risks that need to be managed for banks to be comfortable with lending against such future crop pledges. Usually such systems require crop insurance, price hedging mechanisms, and so forth, to reduce such risks. Most beneficiaries of crop receipts in Brazil tend to be medium- and larger-size commercial farmers. With all these preconditions, crop receipts are not very common outside Brazil, although recently there are some efforts to pilot crop receipt programs in certain large grain markets in Eastern Europe and Central Asia.

#### 3.4.1 Commodity Collateralized Lending

**The implementation of a sound and reliable commodity collateralized lending system can help banks develop financial services among small- and medium-size farmers, while also allowing farmers to extend the sales period of modestly perishable products beyond the harvesting season.** In addition to farmers using commodities as a collateral for lending, such a system enables traders, processors, and exporters to access liquidity when they need it most: the time they make their purchases and hold inventories before processing or selling. Furthermore, pledges of future crop, such as the CPR system in Brazil (box 1), enable farmers to access loans to purchase inputs (pre-harvest finance).

**The large production volume of various commodities, as well as dynamic domestic and exporting markets, make Vietnam suitable for the development of commodity collateralized lending.** However, the use of commodity collateralized lending, including warehouse receipt financing, is very limited in Vietnam. There is no specific legislation adopted to facilitate commodity collateralized lending. According to a World Bank benchmarking tool—Enabling the Business of Agriculture, which examines the enabling regulatory environment across countries, Vietnam received a score of 0 on the Enabling the Business of Agriculture Finance Indicator sub-indicator warehouse receipts.

**Under the warehouse receipt financing approach, farmers, traders, processors or any other owners of commodities can deposit their commodities in licensed and inspected third party warehouses.**

The warehouses issue a warehouse receipt, which then allows the depositor to use the receipt as collateral to borrow from banks. Banks provide funding at some discount of the value of the warehouse receipt to account for the storage and financing costs, as well as other factors such as price volatility history, the robustness of the system, or the trust they put in the warehouse operator. When the depositor sells the receipt and therefore the underlying crop in storage, the bank must be paid first by the buyer, prior to releasing the receipt, which can then be presented to the warehouse alongside payment of storage costs and fees to have the inventories delivered to their new owner. Several countries have warehouse receipts systems including India, Mexico, Colombia, Argentina, Brazil, Tanzania, South Africa, and Ghana (Giovannucci et al., 2000).

**The closest system to warehouse receipt financing is stock monitoring agreements or collateral management agreements,** in which several mostly private banks use inventories in warehouses belonging to the borrower as collateral for lending. Such banks post their staff in these warehouses to oversee the inventories pledged. Given the risks of financing inventories on borrowers' own premises, banks do only this for existing good clients. However, such arrangements impose costs, as there is no third-party inspection system, so the banks rely on their own staff to do the inspection. The lack of dedicated third-party collateral management companies, coupled with the lack of a legal and regulatory system, creates inefficiencies for banks to use commodities as a collateral as they need to rely on their own resources to manage the collateral they finance, usually in warehouses belonging to already credit-worthy clients.

The International Finance Corporation is partnering with a strong local bank (VP Bank) to provide

innovative financing to Tan Long, one of the largest animal feed inputs trader in Vietnam. Financing under a collateral management agreement provides liquidity or risk mitigation solutions to banks for their loans to the agriculture sector against warehouse receipts. This structured financing would allow Tan Long to improve efficiency by eliminating reliance on other intermediaries to issue letters of credit.

### **3.4.2 Value chain finance**

**Value chain finance offers additional solutions to traditional models by providing customers with input supplies and short-term finance.** The value chain finance linkages may reduce the risks of lending to agriculture by addressing information asymmetries and facilitating loan repayment (box 2). In Vietnam, domestic financial institutions rarely accept receivables between buyers and producers as collateral. Meanwhile, it is not uncommon for input suppliers to provide in-kind credit to farmers. This imposes great credit pressure on input suppliers who not only rely on themselves for credit but also serve as a credit source for farmers, especially smallholder farmers. Based on mostly anecdotal information, value chain finance (that is, lead buyers/firms financing farmers they buy from) does not seem that prevalent in Vietnam, and it is usually found in well-organized high-value agricultural produce chains (high-value fruits and vegetables, high-quality rice, and so forth). In such value chains the linkages between the lead firm and the farmer is strong and the lead firm could capture the input and/or cash advances at the time the farmer delivers. Most, if not all, such credit is in kind (inputs) and for the specific crop production needs of the lead firm.

**IFC's Financial Institution Group Advisory team in the East Asia and Pacific region has analyzed opportunities for financing agriculture crops in the Central Highlands and the Mekong Delta, two of the most dynamic regions for agriculture in Vietnam.** It aims to identify new opportunities and ways for banks to finance key value chains. In the Central Highlands, most of

## Box 2. Case Study of a Value Chain Firm—Loc Troi Group

Loc Troi Group is a leading agricultural manufacturer and service supplier in Vietnam with a sustainable value chain from research and production to processing and trading. Loc Troi provides seeds, pesticides, and fertilizers for farmers and follows up with support on techniques, drying, and storage. After harvesting, farmers sell the products to Loc Troi Group and use the proceeds to repay inputs gained. It is worth noting that most of the sales payments are in cash due to farmers' preference. No interest is charged on those input credits, and the maturity is approximate four months, in line with the rice production cycle. Contracts are signed between farmers and Loc Troi Group to ensure the selling. Three types of contract are available: prefixed price, market price at harvest, and upside share between fixed and market price. The fixed price option is mainly applicable to the exclusive rice variety produced by Loc Troi, and the upside share option is the most popular one. On average, 1 to 2 percent of farmers break the contract with side selling, and they will be excluded from further collaboration with Loc Troi. Meanwhile, Loc Troi uses its contracts with exporters to obtain loans from financial institutions, but only foreign ones, which exposes the firm to foreign exchange risk.

the potential for agriculture finance is in the Dak Lak region with coffee, pepper, cashew, and rubber being most promising on the perennial side, while maize, cassava, and vegetables draw attention amongst seasonal/annual crops. Pigs and poultry are important within the livestock sector. In the Mekong Delta, while rice and basic grains are still dominant, increasingly fruits and vegetables and shrimp, followed by aquaculture, provide opportunities for finance. On average, fruits generate 6 to 8 times more net income/hectare compared to rice.

Fruit processors (mango, durian, and dragon fruit) are expanding exports of frozen fruit to Japan and Europe and require investment to upgrade their equipment (freezing and fruit processing equipment, labs to detect chemical concentrations, cold warehouses); there are more than 300 processors in the Mekong Delta and investments vary from US\$50,000 to US\$300,000, which poses interesting lending opportunities for banks. There are also

considerable opportunities to finance smart-climate agriculture, promoting the use of technology to ensure sustainable production systems, that preserves and improves soil and water quality. Medium and large farmers are already looking to invest in such technologies. Value chain finance is not being implemented currently; however, banks could explore collaboration with processors of high-quality fruits and vegetables, particularly now that processors are targeting high-quality markets (Europe, Japan, and the United States).

### 3.4.3 Collateral registries and credit bureaus

**There is a collateral registry in operation for both incorporated and unincorporated entities in Vietnam.**<sup>21</sup> It is unified geographically and by asset type, with an electronic database indexed by the debtor's name. The database is centralized for the entire country, although registration can be made at three regional centers for registration of transactions and assets.

<sup>21</sup> This only refers to collateral registration of movable assets other than aircraft and ships at the registration center for transactions and assets of the National Registration Agency for Secured Transactions.

**The 2015 Civil Code stipulates methods, procedures, rights, and obligations of related parties in dealing with collateral.** The 2015 Civil Code does not limit the type of assets that can be used as collateral; whether it is acceptable or not depends on credit institutions. The registration centers for secured transactions and assets under the National Registration Agency for Secured Transactions conduct the registration of notices of security interests in movable property, including agricultural products, except for ships and aircraft. Cars and motorbikes account for 80 percent of registered movable assets at the center. Use of agricultural products or equipment is limited. Perennial crops do not fall within the competence of the center. The registration of land use rights and assets attached to land as collateral is done by the Land Registration Office under the Department of Natural Resources

and Environment of the province or city directly under the central government.

**The public credit bureau, the Vietnam Credit Information Center, covers 41.8 percent of the adult population,** complemented with private credit registries covering 14.8 percent of the adult population. Data from banks and financial institutions including PCFs, provincial financial investment companies, MFIs, and women development funds are collected and distributed. Information from retailers, utility companies, and government programs are not included in the database. Firms' and individuals' data, both positive and negative data are distributed. Banks and financial institutions can access borrowers' credit information online. Borrowers have access to their data in the public credit bureau but not private credit registries.





## 4. Key Public Sector Instruments for Agriculture and Agriculture Finance

### 4.1 Support to the Agriculture Sector

**In June 2013, the prime minister approved MARD’s Agricultural Restructuring Plan (ARP) through Decision no. 899/QD-TTg.** The plan calls for a shift in sectoral goals beyond physical (output or trade) targets to include a broader set of indicators related to the “triple bottom line”<sup>22</sup> of sustainable development. It lays down a set of core principles to guide the sector’s development, the most significant of which are that **agriculture will be market led and consumer driven, rather than state directed and production led, and the government’s role will shift from being the primary investor/service provider to being the facilitator of investments and services provided by the private sector,** community organizations, research institutions, commercial banks, and others. The roles, approaches, and expenditures of the state in the sector will be restructured to help realize the goals for sustainable agricultural development and rural transformation. A series of policies and regulations were adopted to ensure general strategic planning of the ARP as well as the development of specific sectors. Some of the initiatives are not designed to stimulate agriculture finance but indirectly impact agriculture finance, especially through shifting dynamics on the demand side.

**Decision No. 1895, approving the agriculture development program of hi-tech application, shifts the agriculture sector toward modernization and large-scale productivity, which requires the support of financing resources, especially long-term finance.** Resolution No. 30/NQ-CP and Decision No. 738/QD-BNN-KHCN further endorsed the commitment. Currently there are 29 high-tech agricultural zones in 12 provinces and cities, with 23 agribusinesses having obtained the hi-tech certificate. Enterprises who have received hi-tech agriculture certificates receive preferential policies on taxes, such as reduced tax when importing certain equipment. Agribusinesses are unfamiliar with the criteria of qualifying for hi-tech agriculture projects, and the procedures for obtaining a hi-tech agriculture certificate to enjoy relevant preferential policies remain unclear. These uncertainties impede the take up of hi-tech agricultural practices, which are of great importance for agricultural restructuring in Vietnam.

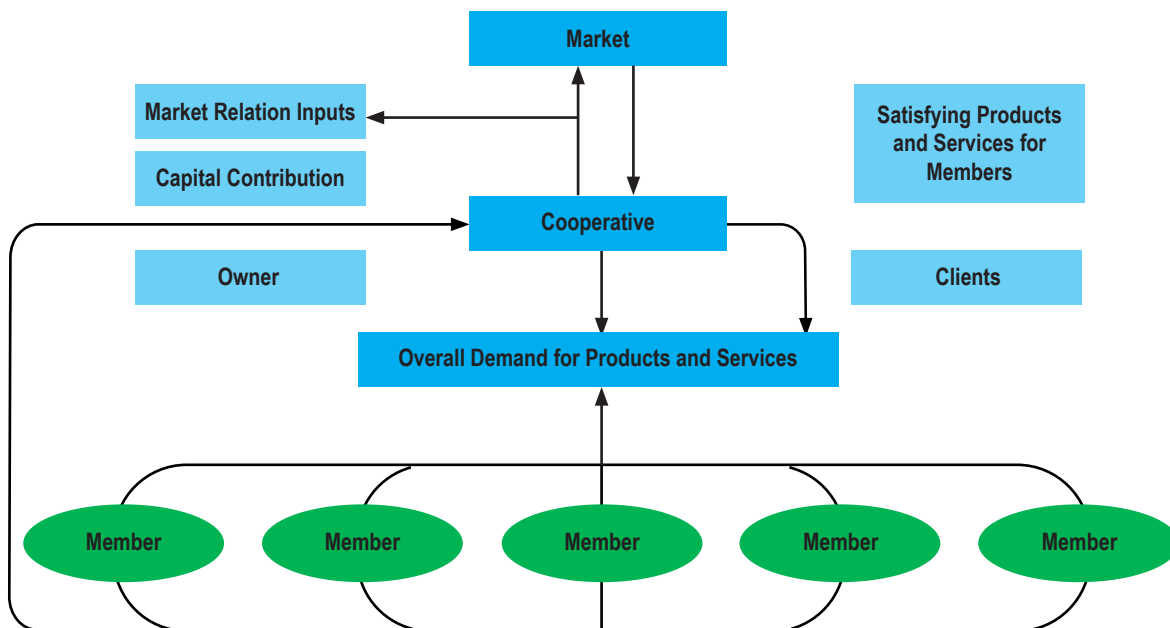
<sup>22</sup> Triple bottom line refers to performance evaluation based not only on financial returns but also on social and environmental impacts.

Cooperatives have been undergoing a process of restructuring under Cooperative Law 2012. MARD, together with VCA, are actively promoting the new agricultural cooperative model that enables **agricultural cooperatives to accumulate capital, improve business infrastructure, and build close linkages between smallholder farmers and markets** (figure 13). Cooperatives can play an important role in building a tight value chain, which is a necessity for the further development of value chain finance. However, Cooperative Law 2012 fails to provide specific provisions on either the method or procedure for the transition of cooperatives into other forms of entities such as businesses and cooperative groups or principles of capital and asset handling during the transition to serve as basis for the MOF to provide proper instruction on capital/asset handling.

## 4.2 Support to Agriculture Finance

**In addition to operating the public banks mentioned above, the government of Vietnam has undertaken a wide variety of actions to foster an affordable supply of financial services.** These are described in the following sections. There is a high level of public intervention to stimulate agriculture finance in Vietnam. Policies and programs largely focus on the provision of credit by (a) directly binding financial institutions to provide low-cost credit to the agriculture sector through a variety of credit policies and programs and (b) addressing the perceived high risk of the agriculture sector through risk management instruments to indirectly incentivize lending to the agriculture sector. The variety of credit policy interventions adopted can be categorized into groups, including relaxation of collateral requirements and interest rate caps, as well as sector-specific interest rate subsidies. Risk management instruments include public credit guarantee schemes, as well as the pilot agricultural insurance program.

**Figure 13. Cooperative Model That Better Links Members with the Market**



Source: Dr. Nguyen Minh Tu, Head of the Cooperative Department, Ministry of Planning and Investment, 2015.

### 4.2.1 Credit Policy Interventions

**Decree 55/2015/ND-CP dated June 9, 2015, on credit policy for agricultural and rural development, replacing Decree 41, lies at the center of various credit policies and programs (table 6) targeting the agribusiness community and farmers, with the aim of contributing to agricultural restructuring.** The decree raises the level of lending without collateral. Individuals, households, collectives, home businesses, and farm owners can borrow from 50 million VND up to 3 billion VND depending on the purpose. Projects with high-tech applications and value chain linkages are particularly encouraged, allowing borrowers to obtain a loan without collateral up to 80 percent of the value of such production. The decree also provides requirements for debt rescheduling when natural disasters or epidemics happen. In practice, financial institutions still require the red book land use right certificate as collateral, but do not document this procedure to circumvent the policy. So, in theory such loans are without collateral, but in practice the borrowers have land rights at stake if they fail to repay. Such uncollateralized loans also appear to be top up loans to borrowers who already have relationships with banks and have their land use rights (red book) already pledged to such banks.

**Maximum lending interest rate (or interest rate cap) is a policy tool that has been widely used by the government of Vietnam.** The interest rate cap for short-term dong loans are granted to the five top-priority sectors including agricultural and rural development, exports, support industries, small- and medium-size companies, and high-technology enterprises. The most recently adopted Decision No. 1425/ 2017/QD-NHNN set a maximum lending interest rate of 6.5 percent p.a. for commercial banks and 7.5 percent p.a. for PCFs and microfinance institutions on short-term loans less than 12 months. The requirements were further tightened compared with the maximum lending interest of 11 percent p.a. in 2013.

**The low interest rate cap squeezes the possible profit margin, reducing significantly the incentive of financial entities to provide their services to the targeted clientele.** In the case of Vietnam, lending rates of 6.5 percent are below even the cost of funding for financial institutions, which makes lending unprofitable to such agriculture clients. The negative impact of interest rate caps on agricultural lending is compounded by the fact that such lending usually entails comparatively higher risk and operating costs. To deal with these effects, private financial institutions normally avoid short-term lending to agriculture unless they are able to increase their revenues through cross-selling of other products or unless they can obtain funding at a subsidized rate (for example, Brazil, Colombia, and Mexico). Entities mandated to serve agricultural clients subject to interest rate caps in many cases also restrict their lending to low risk customers wanting larger loans to reduce operational and risk costs, thus leaving out clients wanting smaller and riskier loans. The cap on the short-term interest rate could also be one explanation for the concentration of short-term loans among two public banks: Agribank and VBSP.

**In addition, different interest rate subsidies target specific commodity production such as paddy, coffee, and shrimp, or other aspects of the agriculture sector including hi-tech agriculture and value chain finance.** A value-chain-based lending scheme was piloted from May 2014 to May 2016 under SBV Governor's Decision No. 1050/QD-NHNN for 28 enterprises in 22 provinces and cities. A total of 31 agricultural projects were implemented, among which eight agricultural production lines across five regions applied high technology. The initial lending rates for projects under the pilot lending program were 7 percent p.a. for short-term lending, 10 percent p.a. for medium-term lending and 10.5 percent p.a. for long-term lending. These rates were adjusted down to 6.5 percent, 9.5 percent, and 10 percent p.a. for short-, medium-, and long-term lending respectively. The loan amount was

decided based on negotiation between clients and commercial banks and had to be less than 90 percent of the project value. In case the clients fell short on collateral, banks could grant unsecured loans given they controlled the cash flow of incoming payments to farmers.

**In contrast to the strong advocacy of hi-tech agriculture to support large-scale and modernized agricultural production and processing, the financial resources to support the development in this regard is minimal.** Financial institutions are “encouraged” to lend to hi-tech agriculture projects even though they are not familiar with the preferential policies regarding credit terms or lending conditions. Meanwhile, financial institutions are reluctant to enter the market given the potential high risks of those projects without any additional interest rate subsidies or financial support.

**Overall and in practice, the effectiveness of these credit policies seems to be relatively limited because (a) the resources to ensure reimbursement or provision of interest-rate subsidies are reportedly insufficient to cover the actual demand (making it necessary for public banks to bear the cost of the lower rates to their customers); (b) the difference between the ceiling and the commercial rate borne by financial institutions curbs their profits and therefore discourages them from lending to the agriculture sector; (c) banks rarely make use of the lower collateral requirements as they have a strong preference for collateralized loans with land rights (red book); (d) there are only limited channels to share risk, therefore financial institutions usually lend to projects with low risks; and (e) the implementation guidance is perceived as unclear, including a vague definition of “hi-tech” agriculture.** Table 6 provides an overview of the main policies applied to agriculture finance.

#### **4.2.2 Public Risk Management Instruments**

**It is important to “de-risk” agriculture finance by addressing both individual risks and**

**systemic risks, thus incentivizing more financial institutions to enter the market.** Vietnam has been trying to leverage guarantee mechanisms to reduce the individual credit risk from the perspective of lenders. It has also piloted agricultural insurance programs to deal with systemic risks imposed on the agriculture sector, such as vulnerability to natural disaster or disease.

#### **Guarantee**

**Partial credit guarantee acts as a partial substitute for conventional collateral, where if the borrower fails to repay, the lender can get partial repayment from a guarantor.** This guarantee scheme shares credit risks with the partner financial institutions in exchange for the guarantee fee. There are two main types of credit guarantee funds in Vietnam: (a) the national credit guarantee fund for SMEs established by VDB with state budget support of 300 billion VND in 2007 and (b) the city or provincial level Credit Guarantee Fund for SMEs.

Both credit guarantee funds face operating or funding issues. The credit guarantee fund under the VDB covers 100 percent of the loan amount and the fee to obtain a guarantee is 0.5 percent, not borne by commercial banks but channeled to lending projects. **The full coverage of loan amount by guarantee and the low fee cost can easily lead to moral hazard from financial institutions by overlooking risk management of guaranteed loans.** Severe disputes between VDB and commercial banks arose on the contingency of payment when loans become overdue, and the government suspended the credit guarantee fund.

With regarding to the city or provincial level credit guarantee fund, though Decision No. 58/ 2013/QD-TTg provides legislative endorsement encouraging the establishment of funds, some provinces currently still face difficulties with limited provincial budget revenue to support the establishment and operation of those funds. It should also be noted that regional funds often are exposed to concentrated risks such as localized problems (for example, production, price,

**Table 6. Key Agriculture Finance Policies**

Area of focus	Policy name	Target sector	Key provision
Collateral requirement	Decree 55/2015/ND-CP; Circular 10/2015/TT-NHNN implementing Decree 55/2015/ ND-CP	Overall agriculture sector	Individuals, households, collectives, home businesses, and farm owners can borrow from 50 million VND up to 3 billion VND depending on purposes
	Decision No. 1425/2017/QĐ-NHNN	Five top-priority sectors of agricultural and rural development, exports, support industries, small- and medium-size companies, and high-technology enterprises	Maximum lending interest rate of 6.5% p.a. for financial institutions and foreign bank branches and 7.5% for PCF and microfinance institutions
Interest rate cap	Decree 89/2015/ND-CP; Decree 17/2018/ND-CP	Interest rate subsidy for fishing industry	If building a new steel boat, the owner can borrow up to 95% of the boat value from a commercial bank with interest rate of 7% p.a., of which owner pays 1% p.a., government supports 6% p.a.; In case of newly made wooden boats, the fishermen are limited to a maximum loan of 70% of the boat value with interest rate of 7% p.a., of which boat owner pay 3%, government supports 4% p.a.
	Decision 540/2014/QĐ-TTg	Credit policy for shrimp and catfish farming	Shrimp and catfish farmers facing difficulties can be eligible for temporary debt rescheduling for a maximum of 36 months; lenders may not impose overdue interest on restructured loans and should prioritize the collection of principal first, collection of interest later; exemption or reduction of interest.
Interest rate subsidy	Decision 68/2013/QĐ-TTg	Loans spent on buying machines and equipment to mitigate post-harvest losses	Support 100% of commercial loan interest rate for the first two years, 50% for the third year for loans spent on buying machines and equipment to mitigate post-harvest losses.
	Letter 3227/NHNN-TĐ; Letter 1685/VPCP-KTTH	Lending policy for coffee replanting in the Central Highlands provinces	Lending policy for coffee replantation in the Central Highlands provinces. Clients replanting coffee can borrow up to 150 million VND/ha, for up to eight years, and the grace period to pay back the principal and the interest is 4 years; clients grafting coffee plants for improvement can borrow up to 80 million VND/ha, for up to four years, the grace period to pay back the principal and the interest is 2 years. The interest rate applied in the grace period is set by the SBBV but it shall not exceed 7% p.a.; the resources for the replanting loans are supported by the SBBV through refinancing.
	Resolution 30/NQ-CP; Decision No. 738/QĐ-BNN-KHCN; Decision No. 813/QĐ-NHNN	Interest rate subsidy to promote hi-tech agriculture	The government assigned SBBV to instruct commercial banks, mainly state owned, to use at least 100,000 billion VND from clients' deposits to lend to those operating in hi-tech applications or clean agriculture, with suitable interest rate. Annual interest rate is from 0.5% to 1.5% lower than normal commercial interest rate with the same term.
	Decision 1050/2014/QĐ-NHNN	Value chain	A value chain-based lending scheme was piloted Nam Định, Đồng Tháp, Cần Thơ and An Giang provinces. Maximum interest rates are charged on applicable projects.

market access, and so forth) that impact many or most borrowers at the same time. **Therefore, designing the credit guarantee fund in a way to ensure its sustainability in the long run is as an essential issue to ensure the success of the program.**

### **Insurance**

**The National Agricultural Insurance Pilot Program was conducted from 2011 to 2013 per Decision No. 315/QĐ-TTg, targeting three sectors: rice, livestock, and aquaculture.** A total of 236,396 households (76.5 percent were poor households, 16.8 percent near-poor households and 6.7 percent normal households) participated in paddy insurance; 60,133 households (84.1 percent were poor households, 9.8 percent near-poor households and 6.1 percent normal households) participated in animal insurance; and 7,487 households (27.4 percent were poor households, 4 percent near-poor households and 68.6 percent normal households) participated in fishery insurance. A top-down approach was adopted for the National Insurance Pilot Program. BaoMinh and BaoViet were the two insurance companies participating in the pilot program, with reinsurance provided by Vietnam National Reinsurance Corporation and SwissRe. An in-depth assessment of the pilot program is beyond the scope of the present diagnostic report. Also, since it is not clear what the objectives of the pilot project were, it is challenging to make any judgement as to whether the pilot was successful. Should the government find it useful, it could initiate an in-depth evaluation of the pilot program. In the absence of an in-depth evaluation, the following information has been obtained about the pilot program.

Farmers had difficulty paying the premiums, and the participation of non-poor households in the insurance project was low. More than 75 percent of the participating households were poor households

with heavy subsidy support. Poor households received subsidies of 90 to 100 percent of the premium amount from the government, near-poor households 80 to 90 percent, non-poor households 60 percent, and large-scale groups or enterprises 20 percent. Premium ratios for rice, livestock, and aquaculture products were respectively 2–5 percent, 3–4 percent, and 7–15 percent. **The compensation ratios for rice and livestock were 19.0 percent and 23.3 percent respectively, while the compensation ratio for aquaculture reached 309.8 percent, resulting in significant losses for participating insurance companies** (figure 14). No significant natural disaster happened during the pilot program, which is one factor to bear in mind when applauding the low compensation ratio for livestock and crop.

**Rice insurance was based on an index calculated by average communal yield over the past three years.**<sup>23</sup> Compensation was paid to farmers when the communal yield was 10 percent lower than the index yield. The compensation amount was the difference between the yield and 90 percent of the index yield. Reportedly some farmers complained about experiencing a loss, but the communal yield was higher than the 90 percent of index yield, thus no payment was made. In such cases, it seems that perhaps they may not have understood the product well, believing that it was for actual losses rather than based on an index. Basis risks (the difference between average yields and actual) should not be significant in rice due to the homogeneity in production practices and conditions. The calculation of the communal yield is done by the General Statistics Office with district level reporting to the provincial government.

**Loss risk management for livestock products (cow, buffalo, chicken, and pig) is challenging as**

<sup>23</sup> Participating communities were selected by the province governments compliant to Decision 315/QĐ-TTg dated January 3, 2011. If the region only had hamlet/cooperative-based actual productivity statistic data, the insurance unit was hamlet/cooperative.

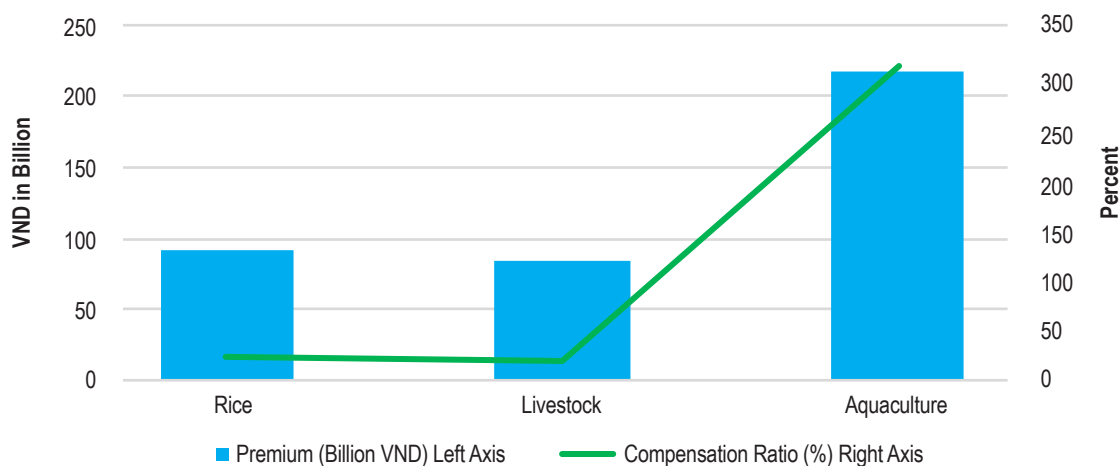
**participating households are mainly small-scale and scattered.** The damage assessment was done at the individual level. Insurance companies relied on local animal health authorities to decide the damage. There were also difficulties with declaration and verification of epidemics for compensation. In many regions the epidemics were not at the scale eligible for declaration to the provincial People’s Committee; on the other hand, the locals also refrained from declaring epidemics, therefore reaction to epidemics mostly stopped with identification. The identification of epidemic becomes more difficult when new diseases emerge, as declaration relies purely on clinical symptoms without lab testing.

**Most of the participating households (more than 95 percent) of the aquaculture insurance were non-poor households.** Extensive, improved extensive, semi-intensive and intensive practices are the main practices in the aquaculture sector. Insurance products are only provided to improved extensive and above practices. Inefficient water resource management, as well as a lack of sensor systems to monitor the conditions of ponds, make

the aquaculture production activities vulnerable. Insurance in aquaculture makes sense when it is combined with improved pond management practices (to lower the incidence of disease) and good monitoring systems by insurance companies.

**The main challenges observed in the pilot program include insurance providers’ low level of understanding of the risks in the agriculture sector and especially in aquaculture, limited capacity to monitor those who purchased insurance, limited available data to design insurance products, weak linkage between credit and insurance, and a low level of financial literacy (understanding of insurance) among farmers.** Agricultural insurance is not attractive to credit institutions as it significantly increases the interest rate, and credit institutions usually restructure defaulted agricultural loans when natural disasters happen and try to recoup money in the long run. In addition, embedding insurance into the value chain was not widely adopted, with few examples where input suppliers or large buyers provide insurance and share the cost of insurance with farmers. Higher risk farmers also demand insurance

**Figure 14. Premium and Compensation Rates in the Agricultural Insurance Pilot Program**



Source: MOF, 2014.

(but do not want to pay the full premium) while low risk farmers do not value insurance, which leads to an adverse selection problem that makes insurance more expensive. Nevertheless, there may be ways to improve on the existing pilot by better targeting, designing, and implementing the right insurance products for targeted farmers, livestock producers, and aquaculture producers that reduce moral hazard and adverse selection issues. Agricultural insurance

usually is more effective when bundled with other products and services (credit, technical assistance, access to inputs and markets, and so forth) so it adds more value for the insured parties. Governments can promote insurance through improving data/information systems, financial education, risk management awareness raising among farmers, and well designed and targeted financial support for insurance premiums (box 3).

### Box 3. Developments in Crop Insurance

Crop insurance is a way to mitigate the risks to farmers and agribusinesses of lower production due to climatic events and other causes (for example, pests, crop diseases). Crop insurance can be traditional (based on individual farm loss assessments) or index based using weather, area yield, or satellite imagery as triggers for payments. Index insurance has been around for some time now and is seeing applications in various countries in Africa, Asia and Latin America (<https://www.indexinsuranceforum.org/>). Index insurance has been used to protect farmers and agribusinesses from bad crops due mostly to adverse weather (for example, droughts, excess rainfall), but also has been used for protection of vulnerable people's assets and income from weather shocks and even government budget exposure to disaster risks.

The main trends are

- Increasing applications and designs of insurance products for various purposes, for example, to protect farmers' and agribusinesses' losses due to weather risks; for social safety net purposes in case of natural disasters, which for rural people include droughts; and to hedge government expenditures when disasters happen.
- A second trend is more and better data and new technologies, from satellites to drones to terrestrial measures that significantly improve the accuracy and granularity of weather observations for specific locations. This enables a more accurate assessment of losses and the design of better insurance products.
- Third, due to climate change there is increasing awareness amongst various stakeholders, public and private sector, in emerging economies of the need to develop crop and livestock insurance products.
- Finally, there is increasing recognition that programs to develop crop and livestock insurance would need to be accompanied by measures to reduce exposure to climatic risks in agricultural and livestock sectors.





## 5. Key Constraints and Challenges

**Assessment of both the demand and supply sides of agriculture finance, together with an examination of the enabling environment, reveal a series of challenges that limit the development of agriculture finance, preventing its significant potential to support agricultural restructuring from being unleashed.** The key constraints and challenges are summarized below.

**The farming sector is highly fragmented.** About 70 percent of farms operate on less than 0.5 ha and only 8 percent nationally have more than 2 ha. Such small farm sizes, which lead to the low value of collateralized assets, and a lack of professionalism and skills constrain the access of these farmers to commercial finance. Small-scale farming practices make households rely on various nonfarm activities for income. Farmers then need credit not only for agricultural activities but also to support other household needs and activities. In addition, a range of diversified financial products such as saving, payment, leasing, and insurance are not reaching farmers.

**Agricultural cooperatives face difficulties due to lack of collateral, low managerial capacity, weak accounting, and small size.** These difficulties impede cooperatives from fully playing their role in integrating smallholder farmers into a tight value chain, which is a necessity for value chain finance. Furthermore, as value chains become more sophisticated and complex, more flexible and affordable financial instruments are required.

**Agricultural production is vulnerable to climate change and remains risky.** Extreme events such as drought in the Central Highlands, heavy rainfall and flooding in south Vietnam, and increased saltwater intrusion in the Mekong Delta threaten aquaculture, imposing great challenges on the already vulnerable agriculture sector. Without addressing the perceived high risk of agricultural production, there remains little incentive for financial institutions lending to the market. **The governments' efforts in a partial credit guarantee scheme and an agricultural insurance pilot program did not achieve the expected result of reducing risks, mostly due to imbedded design flaws in those instruments.**

**There are gaps in the financial literacy of farmers.** The financial literacy of smaller and poorer farmers has, though there are cases in which informal money

lenders confuse farmers with nominal low daily or monthly interest rates and annual effective interest rates, which sneakily increase the cost of credit to farmers. Most of the commercial farmers have a basic knowledge of financial concepts and products. However, their understanding of more sophisticated financial instruments is inadequate. For instance, their limited understanding of the benefits of agricultural insurance products constrains them from using insurance as an effective tool to manage risks in agricultural production and operation.

**The supply of agriculture finance faces high-level policy intervention**, exemplified by the various credit policies discussed previously. However, **the in-practice absorption of various credit policies is low** due to insufficient resources to ensure reimbursement or subsidies, limited channels for risk sharing, and unclear implementation guidelines. Coordination between different government entities on implementing those policies is minimal. **No cost-benefit analyses were done to examine the effectiveness of those policies** due to limited data available.

**Given the high level of policy interventions, lending to the agriculture sector remains highly concentrated in a few public financial institutions**, mainly Agribank (VBARD) and VBSP. Other private commercial banks tend to focus only on low-risk, large-scale farmers or agribusinesses to maintain low NPL ratios. PCFs target low-income households but they need more long-term capital to meet members' demands for investment loans, while at the same time they must develop a professional board and management team. **Learning how to incentivize and equip other private commercial banks to provide credit and financial services**

**to the agriculture sector is critical to unlock financing resources to support the agricultural restructuring process.**

**Serious issues with both the availability and valuation of collateral are obstructing farmers' access to credit.** Regardless of Decree 55, which promotes uncollateralized lending, collateral is still exclusively limited to real estate (red book land use rights) in agricultural lending. Meanwhile, agricultural lands tend to have a low distressed market value. In addition, poor enforcement of collateral and the lack of a secondary market for collateral further leads banks to underestimate farmers' assets for use as collateral, thereby reducing the credit available to farmers. Though the red book collateral has proven very effective in Vietnam, other forms of collateral, such as agricultural equipment and commodity inventory, are rarely used.

Vietnam has tried to build an enabling regulatory environment to support the financial sector by adopting various regulations centered on credit institutions. However, a few areas that are of great importance to agriculture finance are still missing legislation to guide the market. **A lack of regulatory framework specific to commodity collateralized lending** together with the existence of only a few warehouses that can issue trustworthy and accredited warehouse receipts, as well as the absence of a collateral management company, create obstacles for the development of commodity collateralized lending and warehouse receipt financing in Vietnam. In addition, **there is no regulatory framework guiding agent-banking activities**, which is essential to engender trust and set operation standards to ensure the uptake and growth of this new delivery method of financial services, thus fulfilling its potential to serve clients in remote areas.



## 6. Recommendations

### 6.1 Assess the Sustainability of Various Credit Policies

**As a central suggestion, we recommend that high priority be given to the assessment and reform of the various credit policies that support the agriculture sector.** The implementation of various agriculture finance policies is not being appropriately monitored and only limited statistics collected. Also, there are no impact assessments to ensure that policies meet the intended objectives and reach the targeted beneficiaries. Key elements to be taken into consideration in the assessment include whether the policies have reached targeted clients, whether enough incentives are provided to financial institutions, whether the budget is sufficient to cover a certain subsidy, and whether the policies are sustainable given situations of financial institutions' profitability and the status of the budget. Especially with regards to Decree 55, which is at the center of various credit policies, the limitations to the use of installations on land as a collateral for loans significantly reduces the capacity of farms and agricultural firms to access financing, since onsite investments oftentimes exceed the value of the land on which they are built. While there seem to be efforts underway to address this issue, it is recommended that the government (a) take the necessary regulatory steps to allow the use of such installation as collateral and (b) define the way in which such installations (and the corresponding pledges) are registered and managed. In addition, government has been emphasizing the role of hi-tech agriculture in promoting the agricultural transformation. The credit policy to support this subsector has to be revised in a way that (a) removes confusion among financial institutions with clear and detailed guidance on credit terms or lending conditions and (b) reduces the risks of lending to this subsector with supportive risk management mechanisms.

**Revise the policy on interest rate caps.** A World Bank policy research paper (Maimbo et al., 2014) has found various negative effects of interest rate cap across countries, such as a withdrawal of financial institutions from the poor and underserved (as in the West African Economic and Monetary Union countries and Nicaragua), an increase in unofficial and predatory lending (for example, in Japan and the United States), a decrease in the licensing of new lending institutions (as in Bolivia), an increase in the total cost of the loan through additional fees and commissions (as in Armenia, Nicaragua, and South Africa), and a decrease in

product diversity (as in France and Germany). Instead of imposing an interest rate cap on the financial sector, alternative options can reduce interest rates in the long run, together with other beneficial effects such as increased consumer protection and better access to finance. Increasing competition in the microcredit sector through allowing various types of financial institutions to provide a wide range of products on flexible terms has had the effect of reducing interest rates in, for example, Bolivia. In addition, promoting a credit bureau to help reduce information asymmetries that result in higher risk premiums and high interest rates for farmers. It is important to include information from retail stores, utility companies, and other institutions that have data on farmers, who are mainly an unbanked population.

Last, **coordination between the MOF, SBV, and MARD could be enhanced to engender synergies that promote financial solutions for agricultural transformation.** Given the variety of actions that are needed to strengthen the operation of the market for agricultural financial services, we recommend that a steering committee including at least the entities mentioned above be established to coordinate an action plan for reform that the government of Vietnam may decide to implement to ensure smooth coordination. If appropriate, such a coordination function could be assigned to the Inter-ministerial Steering Committee for the Agricultural Restructuring Program.

## 6.2. Strengthen Public Risk-Management Instruments

**Public risk-management instruments should be evaluated and redesigned to address the perceived high risk of the agriculture sector, thus incentivizing private financial institutions to enter the market.** Partial credit guarantees (PCGs) aim to absorb part of the default risk of the borrower. By providing this level of comfort, financial institutions would increase credit supply to credit-constrained firms and farmers. PCGs often provide coverage

for loans to SMEs more broadly, which can include agriculture as one of the targeted sectors amongst others, but there are also PCGs specific to agriculture. There are numerous such guarantee systems for SMEs, including in agriculture, around the world that have been instrumental in promoting credit, particularly to smaller agribusiness SMEs and smallholder farmers, including FIRA in Mexico; FINAGRO in Colombia; the SGR system in Argentina, Chile, and Spain; FGC in Angola; a guarantee system operated by the Rural Development Department of the Central Bank in Sri Lanka; and the Credit Guarantee Corporation of Malaysia, amongst several others.

The government could consider **reintroducing a national credit guarantee scheme for SMEs (including agriculture)** as many other countries in the region have (for example, China, The Philippines, Malaysia, Thailand). The reintroduction needs a different design following international good practices to make the scheme effective and financially sustainable (box 4).

With regards to city- or provincial-level credit guarantee funds, we suggest a review should be conducted on their feasibility, operation efficiency, supervision, and management. The government may consider replacing the current city or provincial level credit guarantee funds with a new national level one as mentioned above. A well designed national partial credit guarantee fund usually proves to be more efficient and cost-effective than scattered regional ones. Limited provincial budgets, as well as exposure to local concentrated risks on production or price, constrain local credit guarantee funds' ability to fully play its role.

In terms of the agricultural insurance market, **we suggest that in the future the agricultural insurance sector differentiates commercial insurance products and insurance products that serve social protection purposes.** Commercial insurance products should be promoted in a package with advanced technology support and better access to credit to attract clients. We suggest that commercial

## Box 4. Key Principles of an Efficient PCG Scheme

A review conducted by World Bank on various PCGs (Varangis et al., 2017) globally found the key principles of an efficient PCG scheme. To begin with, it is important to establish an independent legal entity. The entity should be equipped with adequate funding resources, proper regulatory framework, sound corporate government, and effective risk management. PCGs should have clear and transparent eligibility criteria and qualifications for targeted beneficiaries (firms, SMEs, farmers, and so forth), lenders (participating financial institutions), and credit instruments eligible for coverage. Importantly, guarantees should be partial, less than 100 percent, thus providing the right incentives for borrowers and lenders. The most common coverage found is usually in the range of 50 to 70 percent. Guarantees should also adopt risk-based pricing to cover the cost of risk and administration costs. The typical range of guarantee fees is between 1.5 and 2.5 percent p.a. of the outstanding balance of the loan. PCGs should adopt efficient and transparent claims-processing management but at the same time should provide enough incentives for lenders to apply vigorous loan collection procedures. PCGs should be subject to rigorous financial reporting requirements and should disclose nonfinancial information related to their operations.

insurance cover only certain kinds but not a wide range of risks. Subsidized insurance products should be provided in an appropriate level to avoid moral hazard with relatively high triggering points for claims payment. Insurance for social protection should target specific farmers and rural households, usually poor and most exposed to climatic risks. Such insurance should target catastrophic events that generate substantial losses to income. This insurance should be part of a broader government scheme for financing disaster risks (recovery and prevention) in Vietnam. The government can replace existing mechanisms of compensating farmers during catastrophic events with insurance-based mechanisms. Such schemes are prevalent in various countries in Latin America, such as Mexico, Peru, and Uruguay. This way, insurance mechanisms are employed to transfer the risk the government has vis-à-vis catastrophic losses in agriculture.

Insurance could help increase the chances of getting credit and potentially lower interest rates. But banks tend to encourage adverse selection by only requiring insurance products to be bought by high-risk farmers who usually are not covered by commercial

insurance products. Mandatory requirements on insurance avoid the adverse selection issue. **The link between insurance and credit should be further strengthened** but not necessarily through the mandatory requirement of credit institutions to bundle loans with insurance products. Regulations could allow banks to register insurance as a form of collateral, or assign lower risk weight and lower level of provisions for an insured loan. Partnerships between insurance companies, financial institutions, and large buyers can be helpful in promoting the uptake of agricultural insurance products, while benefiting all participating parties by addressing risks. Governments should work to incentivize the uptake of insurance products. Initiatives include, but are not limited to, collecting and providing data for the design of insurance products and linking agricultural insurance to the broader system of disaster-risk finance in Vietnam.

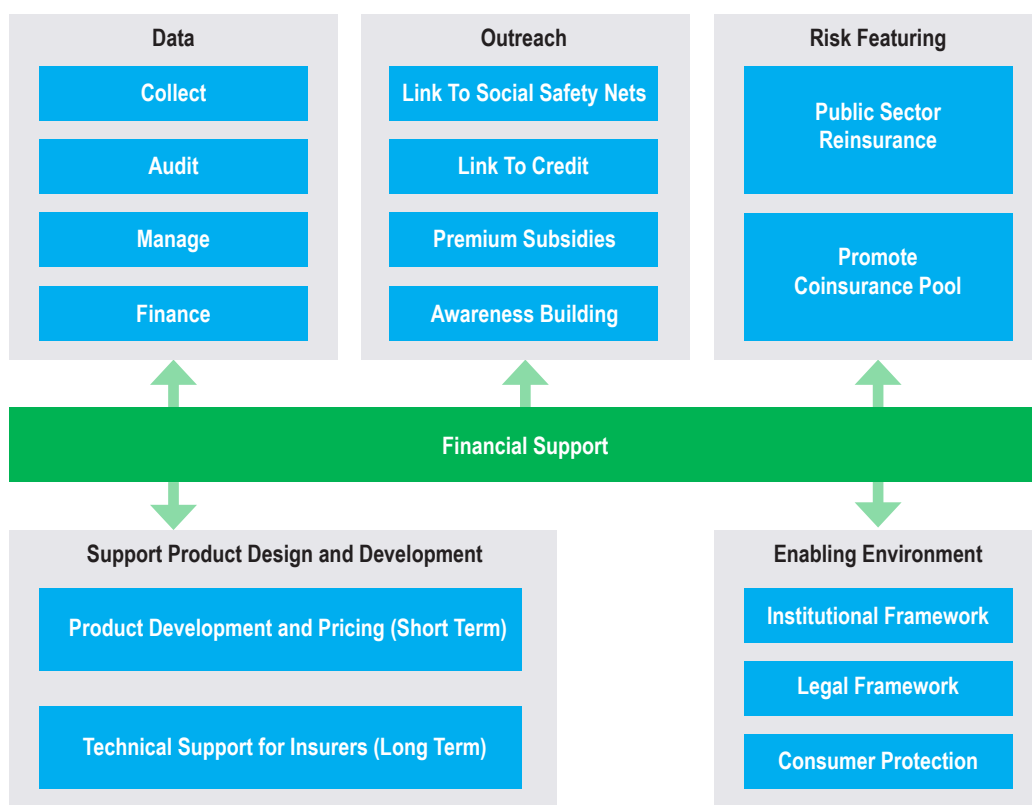
**Developing agricultural insurance requires adopting a comprehensive package of policies and developing a specific action plan in five key areas** (a) data, (b) outreach, (c) risk financing, (d) product design and development, and (e) enabling

environment (figure 15). The implementation of the action plan would also involve private sector participation.

MOF and MARD are currently drafting a decree on agricultural insurance. **With the new draft decree allowing insurance companies to provide agricultural insurance products on a commercial basis, insurance companies should also improve risk management capacity** by (a) having greater access to data from government entities to design appropriate and well-priced products; (b) developing an advanced monitoring system especially for the aquaculture sector; and (c) exploring other initiatives and collaborations with international reinsurance partners to manage risk. Agriculture insurance companies only had three years of data to design the rice insurance products in the pilot program, which is far from sufficient to design well-priced products.

Systems that collect agro-climatic information and conduct risk mapping to assess varied risks across regions would also be beneficial to generate better understanding about risks for insurance companies. Such systems, usually housed in a special department within the Ministry of Agriculture, are now quite prevalent in several countries, particularly in Latin America (please refer to Annex 3 for detailed lessons on agricultural insurance in Latin America and the Caribbean region), including Argentina, Brazil, Colombia, Paraguay, and Uruguay as some examples. During 2017-2018 there was a World Bank technical assistance project facilitating better risk management, but it only covers public (macro level risks) and residential assets. Expanding the scope to the agriculture sector would help improve the risk management capacity of the entire agriculture insurance sector.

**Figure 15. Key Elements of an Action Plan to Promote Agricultural Insurance**



In addition, recent advanced technologies such as remote sensing and satellite images to monitor flood or pasture can also be applied in designing or managing insurance products (box 5). Moreover, regional-level collaboration such as building regional-level databases would be beneficial to promote the agriculture insurance market. In Asia-Pacific Economic Cooperation (APEC) year 2017, Vietnam chaired the APEC Financial Ministerial Meeting in which disaster risk financing and insurance solutions were highlighted as a crucial area of financial cooperation in agriculture financing.

### 6.3. Enhance the Capacity of Public and Private Financial Institutions

**On the supply side, the ongoing reforms of public financial institutions, such as the equitization of Agribank, are critical to ensure a level playing field in the agriculture finance market. The equitization process of Agribank should be conducted by balancing the maintenance its original mandate with higher efficiency and profitability.** As the experience in other countries such as Greece, Guatemala, Mongolia, Tanzania shows, such processes can be carried out in a manner that maintains the orientation of the bank so it serves its traditional clientele and even expands its

services in remote areas if, among other things, (a) the new shareholders consider this segment of the market to be potentially profitable (which has implications for the type of shareholders to invite); (b) options are assessed to maintain or enhance the profitability of remoter service points (see also the discussion on agent banking below); (c) the entity is allowed to price its products according to its costs (which relates to the aspects on interest rate caps and credit policies mentioned above); and (d) steps are undertaken to increase the efficiency of operations through a variety of means. Without these steps, the risk of mission drift or the institution abandoning good customers is very high.

**At the same time reforms are needed to make Agribank more attractive to private and strategic investors.** Such reforms would need to include (a) enhancing corporate governance, focusing on independent board members; (b) enhancing risk management and internal audit committees and functions reporting directly to the board; (c) strengthening risk-management systems and considering investments in management-information and information-technology systems; (d) improving loan monitoring and collection procedures to maintain low NPLs; (e) improving client management and client service processes to enhance speed and quality

### Box 5. New Technology Applications in Agricultural Insurance

Viettel's smart agriculture department offers three main types of services tailored to the agriculture sector, including product tracing, farming environment monitoring, and information on weather and natural disasters. It uses remoting sensor systems to monitor conditions of a pond and send environment monitoring information (PH, oxygen, salinity) to farm owners. This information can also be used by insurance companies.

BaoMinh is currently cooperating with SwissRe and the Vietnam National Reinsurance Corporation to design a new rice insurance product by using satellite images to estimate the yield for claims assessment. The costs related to the use of the technology are borne by the sponsor of the project. The product is index based at communal level. A lack of granularity in available data made it impossible to deploy the product at the pilot stage at a reasonable price. It has been agreed among participating parties to allow for a reconciliation between estimates by satellite and the data collected by the local government entities, should there be significant divergences.

of client service; and (f) reforming the public policies surrounding agriculture finance to enable Agribank to determine the prices of its services considering market conditions, costs, and the availability of any subsidies. In fact, good examples of state agricultural banks, such as in Mexico, Morocco, the Philippines, Thailand, and Turkey, are often associated with good corporate governance, good systems to manage risks, and operating on commercial terms.

**It is also essential to build capacity, especially risk management, at other private financial institutions to fulfil their potential to serve the agriculture sector.** Technical assistance should be provided to train staff with appropriate knowledge and skills and equip the institutions with the tools and methodologies needed to lend to the agriculture sector on a sustainable basis. Understanding the risks of agricultural production and managing the risks of lending to the agriculture sector is key. Meanwhile, support is needed to help financial institutions develop other sophisticated financial products such as leasing, insurance, and commodity-based lending to meet the dynamic demand for financial services by farmers and agribusinesses undergoing the agricultural transformation process.

**To grow the services of PCFs, they need to be integrated into larger apex-like structures** to which they can outsource some important functions such as accounting and information technology, audit/control, reporting to the authorities, and training of boards and staff (box 6). In Vietnam, such support structures seem to be either absent or operating on an informal basis. While Coopbank provides some treasury, financing, and guarantee services (stabilization fund and deposit insurance fund), it does not provide the whole range of services that would be needed to help develop the potential of this sector. While some of these issues may be addressed by the program that it is initiating with support from the Canadian government, a more comprehensive strategy may be needed to help develop the potential of this sector.

**Under the proposed apex-like<sup>24</sup> structures, the relation between PCF and Coopbank (or eventually other apex entities) would be strengthened.** Apex entities would provide access to funding for larger loans and new services (for example, debit cards) and distribution channels (for example, nonbank agents or mobile banking) to enhance the capacity of PCFs. At the same time, apex entities can help streamline operations and deal with regulatory requirements (for example, through

## Box 6. Sicredi Financial Cooperative System of Brazil

The Sicredi Financial Cooperative System of Brazil is a network of 113 cooperatives that owns a bank, Banco Cooperativo Sicredi. The three-tiered system operates in 10 Brazilian states. Today it serves about 3.5 million members. The bank acts as an intermediary between financial markets, third-party financial institutions, and the cooperatives it finances. The Sicredi system dates back to 1902, when Brazil's first credit cooperative was founded. Being of rural origin, the system and its affiliated cooperatives are today one of the most important providers of financial services to smallholder farmers. While Sicredi has diversified its services to also serve urban populations and nonagricultural businesses, it maintains a strong focus on serving smallholder farmers, to whom it can offer, thanks to its financial strength and diversification, a full range of services, including long-term loans, insurance, and a variety of deposit and transfer services.

<sup>24</sup> The cooperative apex organization helps unit cooperatives, provide necessary support to members and promote the development of the entire cooperative sector.



unified core banking systems). The strengthened relationship enables PCFs to become better providers of financial services for their members.

#### **6.4. Create an Environment that Supports the Development of Agriculture Finance**

**An enabling regulatory framework is needed to reduce the operating cost of delivering credit and financial services through alternative delivery channels such as agent banking (Box 7).** Agent banking provides cost-effective solutions that promote agricultural financing from both the supply side and the demand side. It lowers the cost to banks by avoiding establishing physical banking infrastructure to unbanked areas, and it provides farmers with more economical options for getting access to financial services as they do not need to spend out of pocket to reach a bank branch. A regulatory framework guiding agent-banking activities is essential to engender trust and set operation standards to ensure the uptake and booming growth of this new delivery channel for financial services. This will help agent banking to fulfill its potential to serve clients in remote areas. Important regulatory aspects include

minimum standards to qualify as an agent, scope of services provided by agent, and exclusivity or non-exclusivity of relationship between agent and banks.

**A prerequisite to fostering commodity collateralized lending is comprehensive legislation to provide transparency and clarify the rules governing the system** by defining the rights and responsibilities of all parties involved. In addition, a competent authority designated to oversee the operation of the warehouses is important for a strong commodity collateralized lending system. In the case of warehouse receipts, the existence of a public registration system for warehouse receipts with detailed records of the warehouse receipts helps increase transparency in the system and minimize fraud. Performance guarantees, such as requirements that operators must file a bond with the regulator, pay into an indemnity fund, or insure the warehouse and the goods inside, reduce a bank's risk in lending against stored commodities and increase user confidence in such lending, including for the establishment of a warehouse receipt system. The development and promotion of third-party collateral management

#### **Box 7. Good Regulatory Practices to Support Agent-Banking Activities**

A World Bank benchmarking tool—Enabling the Business of Agriculture, developed an agent-banking indicator measuring the strength of agent-banking legislation. Good legal and regulatory practices include but are not limited to the following: clear rules on minimum standards to operate as an agent, provisions allowing agents to provide services for multiple financial institutions, permission for agents to provide a wide range of services, financial institution liability for agent actions while providing financial services on the institution's behalf, and requirements for financial service providers to reduce fraud by monitoring and reporting on the actions of their agents.

Tanzania issued the Guidelines on Agent Banking for Banking Institutions in 2013 regulating agent banking activities. Minimum standards to qualify as an agent to provide financial services on behalf of a bank have been established. Moreover, the guidelines allow agents to provide a wide range of services and establish the bank's liability for the acts of the agent. By doing so, it provides customers with relevant safeguards and addresses the potential customer's reticence about using the agents' services.

companies would also assist banks in monitoring inventories that they use as collateral for loans.

### 6.5. Better Understand the Demand of Farmers and Agribusinesses for Financial Services

**A systematic segmentation of farmers based on their degree of commercialization and ties to value chains (loose vs. tight) is the first step to understanding financial needs of farmers.** Following a CGAP (Consultative Group to Assist the Poor) publication in 2013 (Christen & Anderson, 2013), the recent debate has refined the segmentation toward closer linkage to income sources of households (figure 16). A great percentage of farmers in Vietnam are transitioning farmers with a high level of nonfarm income, such as wages gained from off-farm activities. Meanwhile, in key agricultural regions like the Mekong Delta and the Central Highlands, there are significant numbers of specialized commercial farmers who are intensive shrimp producers, rice producers with contracts, or specialized coffee farmers.

**The demand for financial services and products varies across different farming segments.** Subsistence farms require financial products to save and borrow mainly to smooth their income and deal with emergencies. Transitioning farms usually use their income generated from off-farm

activities to finance agriculture production. Thus, they need credit not only for agricultural activities but also for nonfarm activities. Commercial farms demand a wider variety of and more targeted and sophisticated financial services to support their agriculture production and manage their household financial needs.

**A nationally representative survey would be helpful to reflect the changing financial demand of farmers and agribusinesses across subsectors of agriculture under the agricultural restructuring process.** Farmers rely heavily on nonfarm activities to generate household income, and at the same time try to diversify farmland usage by converting some land to nonpaddy crops. Both farmers and agribusinesses have to adopt advanced farming practices or hi-tech infrastructures to maintain agricultural production’s resilience during climate change. Agribusinesses need to upgrade operation lines to generate increased value to further succeed in the international commodity market. All these changing features of agricultural production or business operation enlarge the scope of financial needs of farmers and agribusiness. An in-depth survey can help financial institutions offer accessible and affordable financial products and services, such as leasing, insurance, and guarantees, to fulfil the dynamic demands of farmers and agribusiness experiencing agricultural transformation.

Figure 16. Segmentation of Farmers

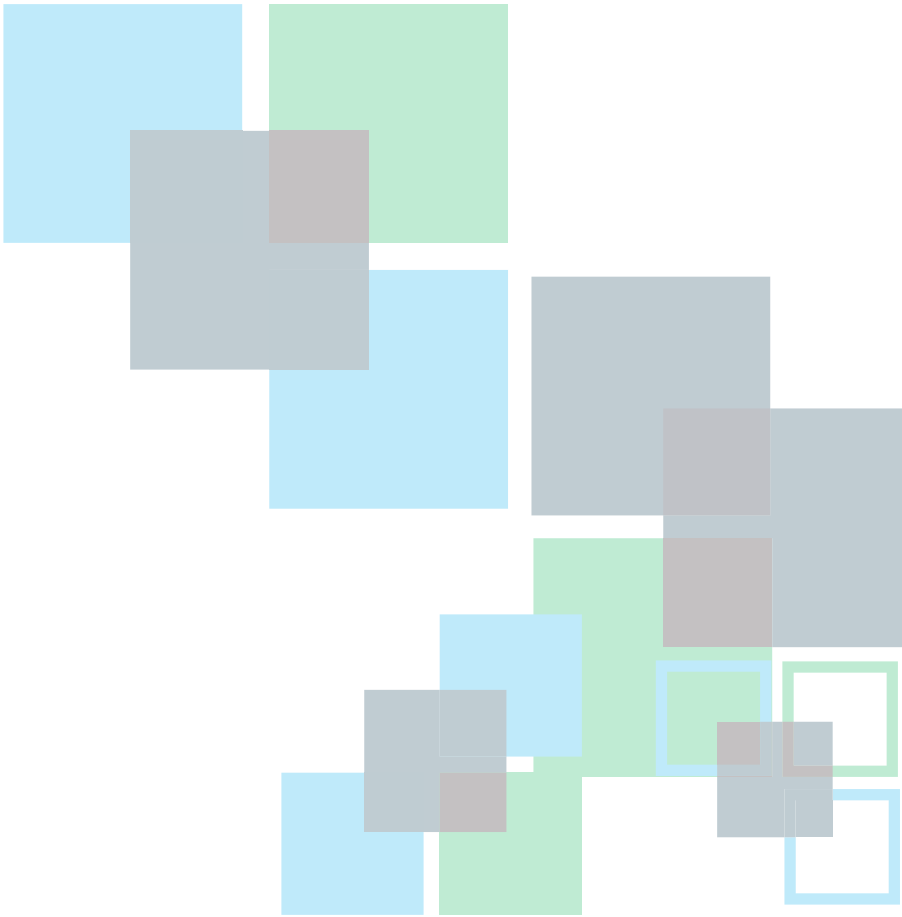
		Importance of farm sales (Agriculture Sales/Total Agriculture Income)	
		Low	High
Importance of Nonfarm Income (Nonfarm Income/Total Household Income)	Low	Subsistence Farms	Specialized Commercial Farms
	High	Transitioning Farms	Diversified Commercial Farms

Sources: AGRA 2017.

**It is still important to enhance financial literacy among farmers and enhance the capacity of farmer organizations.** Financial literacy programs should always be an important element of a financial inclusion framework. Implementation of those programs can be joint efforts between public and private sector. Financial institutions should be required to disclose the full cost of credit (for example, annual effective interest rate) when lending to farmers and enhance their understanding accordingly. It would also be beneficial to encourage players along the agricultural value chain to use cashless payment methods, such as when traders directly deposit payment to farmers' accounts. In addition to the improvement of financial literacy, farmers should also be informed of technological advancements to increase efficiency of production. **Moreover, further actions should be undertaken to strengthen the accounting and management capacity of farmer organizations** (especially cooperatives). Technical assistance on business development for these institutions is important. The introduction of technological advances that facilitate

institutional management and operation should be incorporated as a key element in technical-assistance or capacity-building programs. We also suggest that a scheme should be introduced to ensure that cooperatives are audited. Meanwhile, collateral should not be limited to land use rights but also include a production plan for farmer organizations.

**Last, coordination between the MOF, SBV, and MARD could be enhanced to engender synergies that promote financial solutions for agricultural transformation.** Given the variety of actions that are needed to strengthen the operation of the market for agricultural financial services, we recommend that a steering committee including at least the entities mentioned above be established to coordinate an action plan for reform that the government of Vietnam may decide to implement to ensure smooth coordination. If appropriate, such a coordination function could be assigned to the Inter-ministerial Steering Committee for the Agricultural Restructuring Program.





## References

AGRA (Alliance for a Green Revolution in Africa). 2017. Africa Agriculture Status Report: The Business of Smallholder Agriculture in Sub-Saharan Africa (Issue 5). Nairobi, Kenya: Alliance for a Green Revolution in Africa.

Agribank. 2017. Agribank 2016 Annual Report. Hanoi, Vietnam.

BIDV (Bank for Investment and Development of Vietnam). 2017. BIDV 2016 Annual Report. Hanoi, Vietnam.

Christen, Robert Peck, and Jamie Anderson. 2013. “Segmentation of Smallholder Households: Meeting the Range of Financial Needs in Agricultural Families.” CGAP focus note: No. 85. Washington, D.C.: World Bank Group.

CIAT (Climate Smart Agriculture in Vietnam). 2017. Vietnam Climate Smart Agriculture. Unpublished Report.

General Statistics Office (GSO). Vietnam Agricultural Census 2016. Hanoi, Vietnam.

Giovannucci, Daniele, Panos Varangis, Don Larson. 2000. “Warehouse receipts: facilitating credit and commodity markets. A Guide to Developing Agricultural Markets and Agro-Enterprises.” Washington DC: World Bank Group.

IFC (International Finance Corporation). 2010. “Central Highlands & Mekong Delta Value Chain Analysis.” Washington, D.C.: World Bank Group.

IPSARD (Institute of Policy and Strategy for Agriculture and Rural Development). 2016. “Report on Development the Draft Decree on Mechanisms and Policies to Attract and Promote Investment in Agriculture Sector.” Hanoi, Vietnam.

Maimbo, Samuel Munzele, Henriquez Gallegos, and Claudia Alejandra. 2014. “Interest Rate Caps Around the World: Still Popular, but a Blunt Instrument.” Policy Research working paper No. WPS 7070. Washington, DC: World Bank Group.

Ministry of Agriculture and Rural Development, Department of Crop Production. 2017. Report on the crop production restructuring and orientation for the period 2016-2020. Hanoi: Ministry of Agriculture and Rural Development, Vietnam.

- Ministry of Agriculture and Rural Development, Directorate of Fisheries. 2017. Report Results of Implementation of the Fisheries. Hanoi: Ministry of Agriculture and Rural Development, Vietnam.
- MOF (Ministry of Finance). 2014. “Result of NAIPP according to Decision 315/QĐ-TTg dated 01/3/2011 of Prime Minister.” Hanoi, Vietnam.
- Nexus. 2013. “Review of Vietnam’s Agro Finance Policies, Directives and Public Schemes.” Washington, D.C.: World Bank Group.
- Sergiy, Zorya and Steven Jaffee. 2016. “Agri-Food Jobs in Vietnam.” Washington, D.C.: World Bank Group.
- Varangis, Panos, Jean Saint-Geours and Juan Buchenau. 2017. “Using Commodities as a Collateral for Finance (Commodity Backed Finance).” Washington, D.C.: World Bank Group.
- Varangis, Panos, Mazen Bouri and Juan Buchenau. 2017. “Partial Credit Guarantee Schemes to Promote Agricultural Finance.” Washington, D.C.: World Bank Group.
- (VHLSS) Vietnam Household Living Standards Survey. 2016, 2014, 2012. General Statistics Office of Vietnam.
- Vietnam Microfinance Working Group (VMFWG). 2013. “The sustainability of Microfinance institutions in Vietnam: Circumstances and implications.” Hanoi, Vietnam.
- Vietnam Publishing House of Natural Resources, Environment and Cartography. 2014. The Initial Biennial Updated Report of Vietnam to the United Nations Framework Convention on Climate Change. Hanoi.
- World Bank. 2015a. “Diagnostic review of consumer protection and financial literacy—Volumes 1 and 2.” Washington, D.C.: World Bank Group.
- . 2015b. Internal Project Appraisal document for a Sustainable Agriculture Transformation Project in Vietnam: PAD 1168. Washington, D.C.
- . 2015c. The Global Findex Database 2014. Washington, D.C.: World Bank Group.
- . 2015d. Enterprise Survey database Vietnam. Washington, D.C.: World Bank Group.
- . 2016. “Vietnam Development Report 2016: Transforming Vietnamese Agriculture: Gaining More from Less.” Washington, D.C.: World Bank Group.
- . 2017. World Development Indicators. Washington, D.C.: World Bank Group. <https://datacatalog.worldbank.org/dataset/world-development-indicators>.
- . 2017. Enabling the Business of Agriculture 2017. Washington, D.C.: World Bank Group.
- . 2018. The Global Findex Database 2017. Washington, D.C.: World Bank Group.



## Annex 1: List of Key People Met During the Mission

### State Bank of Vietnam

Mr. Tran Van Tan, Deputy Director General, Department of Credit Policies

Mr. Nguyen Tu Anh, Deputy Director General, Monetary Policy Department

Mr. Le Trung Kien, Deputy Director General, Banking Supervision Agency

Mr. Cao Van Binh, Deputy General Director, Credit Information Center

Mr. Nguyen Van Tuyen, Division Head, Payment Supervision Department

Ms. Nguyen Thanh Tung, Division Head, Department of Credit Policies

Ms. Lan Anh, Department of Credit Policies

Mr. Tuan Anh, Statistics and Forecasting Department

Ms. Pham Thuy Duong, International Cooperation Department

Ms. Nguyen Thi Thanh Trang, International Cooperation Department

### Ministry of Finance

Mr. Nguyen Viet Hung, Division Head, Banking and Financial Institutions Department

Mr. Bui Thanh Hai, Deputy Division Head, Insurance Supervision Agency

Ms. Le Thi Thuy Vân, Insurance Supervision Agency

Mr. Dung, Banking and Financial Institutions Department

Ms. Hien, Banking and Financial Institutions Department

### Ministry of Agriculture and Rural Development Ministry of Agriculture and Rural Development

Ms. Nguyen Thi Hong, Director General, Planning Department

Mr. Phan Tieu Long, Planning Department

Mr. Tran Gia Long, Planning Department

Ms. Pham Thi Tuoc, VnSAT project

Ms. Nguyen Thuy Nga, Planning Department

Mr. Nguyen Kim Chien, Department for Science and Technology  
Mr. Pham Quoc Sinh, Department for Collective Economy and Rural Development  
Mr. Pham Duc Thuan, Center for Information and Statistics  
Mr. Nguyen Viet Hien, General Department for Disaster Prevention and Control

### **Institute of Policy and Strategy for Agriculture and Rural Development**

Mr. Nguyen Do Anh Tuan, Director General  
Ms. Pham Thi Ngoc Linh, Director, Science Management and International Cooperation Division  
Ms. Truong Thi Thu Trang, Director, Division of Strategy and Policy Study  
Vietnam Bank for Agriculture and Rural Development  
Ms. Nguyen Thi Phuong, Deputy General Director  
Ms. Nguyen Thi Thu Ha, Deputy Director, International Cooperation Department  
Ms. Tran Thi Minh Thai, Deputy Director, Financial Institutions Department  
Ms. Nguyen Thi Thai, Deputy Director, International Cooperation Department  
Mr. Le Van Chien, Deputy Director, Lam Dong 2 Branch  
Mr. Hoang Xuan Tuat, Director, Dong Thap Branch  
Mr. Chau Van Hieu, Deputy Director, Dong Thap Branch  
Mr. Ho Van Nguyen, Corporate Banking Division Head, Dong Thap Branch  
Mr. Hoang Xuan Tiep, Corporate Banking

Division Officer, Dong Thap Branch  
Mr. Vo Thanh Hai, Treasury and Planning Division Head, Dong Thap Branch  
Mr. Bui Thanh Quang, Director, An Giang Branch  
Mr. Nguyen Vinh Thanh, Corporate Banking Division Head, An Giang Branch  
Mr. Phan Dinh Quat, Deputy Head, Households and Individuals Division, An Giang Branch

### **Vietnam Development Bank**

Mr. Nguyen Chi Trang, Deputy General Director  
Mr. Dang Vu Hung, Deputy Director, Development Policy Department

### **Vietnam Bank for Social Policies**

Mr. Nguyen Duc Hai, Deputy General Director  
Mr. Phan Cu Nhan, Director, Communication and International Cooperation Department

### **VIETINBANK**

Ms. Phung Thi Huong Giang, Lending Product Department, Retail Banking Division

### **TECHCOMBANK**

Ms. Do Diem Hong, Executive Vice President, Head, Financial Institutions  
Ms. Nguyen Thi Khai Phuong, Senior Relationship Manager, Development Financial Institutions,

### **FINANCIAL INSTITUTIONS, WHOLESALE BANKING**

Cooperative Bank of Vietnam  
Mr. Nguyen Thac Tam, Deputy General Director  
Ms. Nguyen Thanh Hanh, Manager,



International Relations & Project  
Management Department

Saigon Hanoi Commercial Joint Stock Bank  
Ms. Bui Tuyet Hanh, Director, Corporate  
Banking Management and Development Center

Ms. Luu Thi Minh Hai, Manager, Credit  
Product R&D Department, Personal Banking  
Product R&D

### **Center**

Ms. Phan Thi Thu Ha, Vice Director, Credit  
Policy and Monitoring Division

Ms. Le Thi Yen, Acting Director, International  
Relations Department

### **BAO VIET INSURANCE**

Mr. Hoang Xuan Dieu, General Manager,  
Agricultural Insurance Project

### **BAO MINH INSURANCE**

Mr. Nguyen The Nang,  
Deputy General Director

Mr. Ho Hai Dang, Deputy Director of Project  
Insurance Department

### **Vietnam National Reinsurance Corporation**

Mr. Yves-Daniel Cochand, Deputy Chief  
Executive Officer

Ms. Nguyen Thi Thanh A, Manager—Public  
Sector Business

### **LIEN PHUONG PCF**

Ms. Tinh, Chairwoman

Ms. Ngoc, Chief of Internal Control

Ms. Hoa, Chief Accountant

### **ANTESCO**

Mr. Quach Thanh Binh, Deputy Director

Ms. Nguyen Thi Thanh Thuy, Deputy Director,  
An Giang Factory

Ms. Tran Thanh Nhan, Deputy Director,  
An Giang Factory

### **LOC TROI GROUP**

Mr. Phan Ba Ngoc Phuong,  
Financial Controller

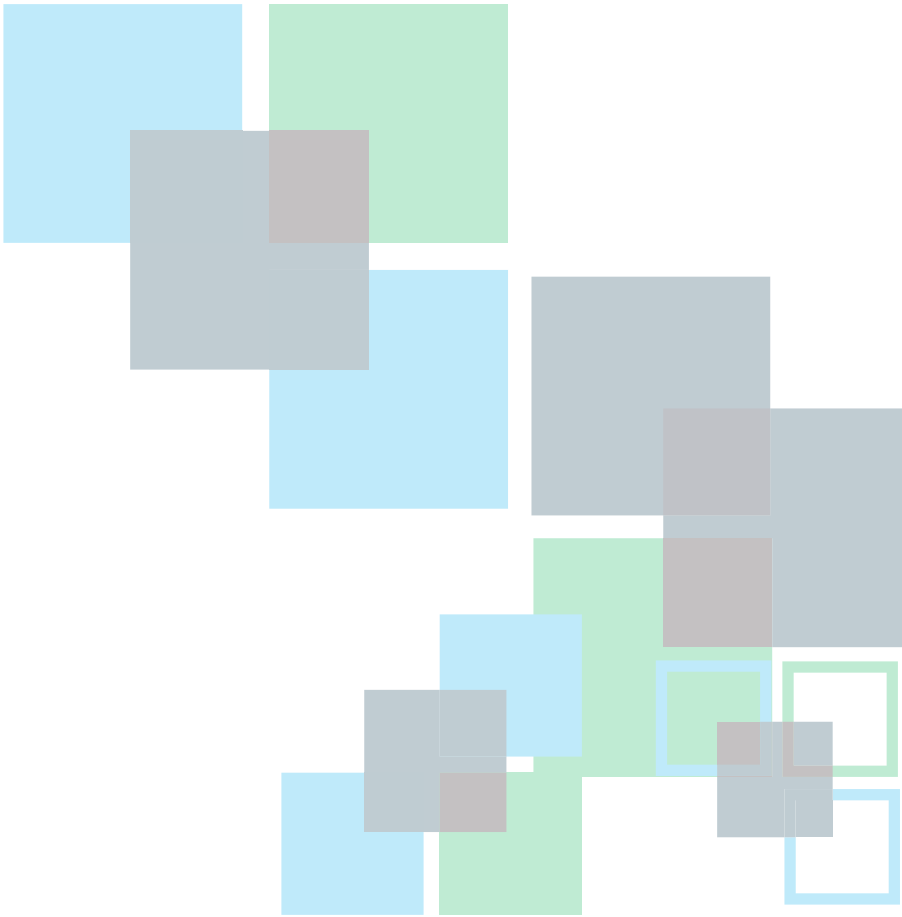
Mr. Nguyen Hoang, Deputy Director,  
Crop Production

Mr. Nguyen Phi Bang, Deputy Head,  
Finance Division

Mr. Doan Minh Truong, Officer,  
Finance Division

Mr. Duong Van Chin, Chairman, Dinh Thanh  
Agriculture Research Center

### **CREDIT INFORMATION CENTER**





## Annex 2 : State Bank of Vietnam Classification of Credit to Agriculture and Rural Development

I	Ordinary loan (divided by industry)
1	Crops
1.1	Food
1.2	Coffee
1.3	Rubber
1.4	Pepper
1.5	Cashew
1.6	Sugar cane
1.7	Tea
1.8	Fruits
1.9	Other
2	Raising livestock and poultry
3	Aquaculture:
3.1	Catfish
3.2	Shrimp
3.3	Other
4	Fishing
5	Produce, purchase, process, preserve, consume salt
6	Import fertilizer
7	Purchase, process, preserve, consume agricultural, forestry, and aquaculture products (including purchasing, processing, preserving, consuming agricultural, forestry, and aquaculture products in trade village)
7.1	Agricultural products, in which:
	Food
	Coffee
	Rubber
	Pepper
	Cashew

	Sugar Cane
	Tea
	Fruits
	Other
7.2	Forestry products
7.3	Aquaculture products, In which:
	Catfish
	Shrimp
	Other
7.4	Sea products
8	Plant, care for and improve forest
9	Develop rural business, in which:
9.1	Purchase, process, preserve and consume agricultural, forest, and aquaculture products in trade villages
9.2	Produce construction materials, pottery, porcelain, and glass
9.3	Small mechanicals and handicrafts
9.4	Rural construction and transportation
9.5	Other
10	Inland irrigation construction
11	Investment and construction of rural infrastructure
11.1	Construction of rural roads
11.2	Construction of electricity station
11.3	Construction of other rural infrastructure
12	Industrial production, trade and provision of nonagricultural services in rural areas
13	Consumption in rural areas
14	Other



## Annex 3: Agricultural Insurance: Experiences and Lessons from Latin America

Agricultural insurance is available in most of the countries of the Latin America and Caribbean region, and the insurance market is quite well developed in terms of premiums and products. The public sector plays an important role in supporting agriculture insurance via premium support (for example, Brazil, Colombia, Mexico, Uruguay), dedicated reinsurance (for example, Brazil, Mexico), and investments in data and climatic information systems (for example, Argentina, Brazil, Colombia, Mexico). However, the penetration of insurance is uneven, as most insurance is used by medium and larger commercial farmers, and it is focused more on standardized products. Increasingly though, agricultural insurance in the Latin America and Caribbean region is developing more tailored products for commercial farmers (that is, revenue insurance) and at the same time, several governments in the region already have or are looking to set up and support catastrophic insurance programs to provide income support for poor smallholder farmers (who have limited capacity to purchase insurance). These catastrophic insurance products are of interest to governments to transfer their fiscal risks associated with such catastrophic and weather events, improving public expenditures for agriculture emergency programs. Mexico, Peru, Brazil, and Uruguay for example, have set up programs to cover catastrophic losses (for example, losses of production of more than 50 percent at a regional level) for smallholder farmers that replaces previous ad hoc and ex-post programs to compensate such poor farmers when catastrophic losses occur. In another case, the government of Uruguay, with help from the World Bank, has purchased weather-related hedging instruments to protect its exposure against climatic risks (lack of rainfall in this case). Argentina and Colombia are seeking to do the same. It is interesting to note that in Peru, the payment of compensation directly into farmers' bank accounts has made it possible to bring into the formal financial sector tens of thousands of poor farmers who previously had no relation with the formal financial sector. Thus, catastrophic insurance for poor farmers is contributing significantly to financial inclusion in the rural areas of Peru.

Key challenges ahead lay in four aspects:

- the dependence of agriculture insurance programs on a government budget could expose such programs to the risk of not having sufficient resources in the future, stalling the development of the agriculture insurance market. Thus, there is a need to better target government resources for insurance to the most vulnerable farmers and focus on catastrophic risks where there is a clear role for the public sector, leveraging private sector resources as much as possible, particularly in the development, design, and distribution of insurance products.
- There is an ongoing need to improve the infrastructure, human resources, and technology used for agriculture insurance. In particular, the need to set up suitable systems to measure, monitor, and map agro-climatic risks is of paramount importance.
- There is also a need to use technologies to reduce transaction costs involved in the provision of agricultural insurance. Such technologies often involve the use of mobile phones and digital payment platforms.
- Agricultural insurance programs need to provide sufficient incentives for farmers to invest in climate-smart agriculture practices to reduce production and weather risks, bringing an integrated management of agriculture risks (insurance is not a silver bullet for helping farmers deal with every risk). In several countries (for example, Argentina, Brazil), insurance programs complement programs to promote investments in climate-smart agriculture, linking such efforts to credit and emergency response.



