ĐẶC ĐIỂM KINH TẾ NÔNG THÔN VIỆT NAM

KẾT QUẢ ĐIỀU TRA HỘ GIA ĐÌNH NÔNG THÔN NĂM 2012 TẠI 12 TỈNH

CHARACTERISTICS OF THE VIETNAMESE RURAL ECONOMY

EVIDENCE FROM A 2012 RURAL HOUSEHOLD SURVEY IN 12 PROVINCES OF VIETNAM

NHÀ XUẤT BẢN LAO ĐỘNG - XÃ HỘI - NĂM 2013

ĐẶC ĐIỂM KINH TẾ NÔNG THÔN VIỆT NAM KẾT QUẢ ĐIỀU TRA HỘ GIA ĐÌNH NÔNG THÔN NĂM 2012 TẠI 12 TỈNH

CHARACTERISTICS OF THE VIETNAMESE RURAL ECONOMY

Evidence from a 2012 Rural Household Survey in 12 Provinces of Vietnam

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

PREFACE

The origin of this report dates back to 2002, when the first Vietnam Access to Resources Household Survey (VARHS) was carried out. The results of the VARHS02 inspired the Central Institute for Economic Management (CIEM) of the Ministry of Planning and Investment (MPI) and the Centre for Agricultural Policy Consulting of the Institute of Policy and Strategy for Agriculture and Rural Development (CAP-IPSARD) of the Ministry of Agriculture and Rural Development (MARD), the Institute of Labour Science and Social Affairs (ILSSA) of the Ministry of Labour, Invalids and Social Affairs (MoLISA), and the Development Economics Research Group (DERG) of the University of Copenhagen, together with Danida, to plan and carry out another survey in 2006 and subsequently in 2008 and in 2010. The survey on which the present report is based builds on these previous four rounds.

The fieldwork behind this report, referred to as the VARHS12, consisted of interviews of more than 3,700 households in the months of June and July of 2012. It was carried out in the rural areas of 12 provinces in Vietnam: (i) four (ex-Ha Tay, Nghe An, Khanh Hoa and Lam Dong) supported by Danida under the Business Sector Programme Support (BSPS); (ii) five (Dak Lak, Dak, Nong, Lao Cai, Dien Bien and Lai Chau) supported under the Agriculture and Rural Development Sector Programme Support (ARDSPS); and (iii) three (Phu Tho, Quang Nam and Long An), which were all initially surveyed in 2002 and are now covered by the BSPS.

The 2012 sample has been expanded by more than 500 households in order to ensure that the sample is representative of the rural population within the sampled provinces. This addition makes the VARHS an even stronger tool for gaining detailed and policy relevant information about the economy and society of rural Vietnam.

ILSSA carried out a wide range of tasks related to the planning and implementation of the survey in the field, and the DERG collaborated with CIEM, IPSARD and ILSSA in all aspects of survey design and data analysis. Capacity building activities by DERG staff were conducted throughout this process under on-going institutional twinning arrangements to ensure that the VARHS project develops both the data required to deliver policy-relevant research to decision makers and the research capacity within Vietnamese institutions to take advantage of that data.

The VARHS surveys were designed as collaborative research efforts with the explicit objective of complementing the large and nationally representative Vietnam Household Living Standards Survey (VHLSS) conducted biennially by the General Statistics Office (GSO), most recently in 2012. Many households surveyed in the VARHS have also been surveyed in the VHLSS. The VARHS thus focuses on building on the substantial database already being collected in the VHLSS, with a specific focus on collecting data and gaining an understanding of the access to and interaction of rural Vietnamese households with the markets for land, labour and credit.

Moreover, as in 2006, 2008 and 2010, particular attention was paid in 2012 to collecting agricultural data at the plot level of individual farmers.

The present report provides an overview of key insights from the VARHS12 database, comparing them, wherever feasible and appropriate, with results from earlier surveys. It should be noted, however, that the report by no means provides exhaustive coverage of all of the data collected, and the reader is encouraged to refer to the household and commune questionnaires (available on-line) that were used in the collection of data to see the comprehensive set of issues addressed or to explore topics addressed in this report in greater depth.

Further in-depth studies of selected issues on the Vietnamese rural economy are underway, and follow-up surveys are being planned for 2014 and 2016 with a view to continuing and expanding the panel database.

ACKNOWLEDGEMENTS

The team of authors behind the present report is grateful to the President of CIEM, Professor Le Xuan Ba, the Director General of IPSARD, Dr. Dang Kim Son, and the Director of ILSSA, Dr. Nguyen Thi Lan Huong, who have guided our work from beginning to end, and promoted effective collaboration between all partners. Thanks are also due to the Danish Ambassador in Vietnam, H.E. John Nielsen, who has supported the research effort throughout its various stages. Financial support from Danida under the BSPS and ARD SPS programmes is acknowledged with sincere gratitude.

The core research team was led by Dr. Thomas Markussen (UoC/DERG) and also consisted of Dr. Carol Newman from Trinity College, Dublin, Mr. Luu Duc Khai and Ms. Hoang Xuan Diem from CIEM, Ms. Tran Thi Thanh Nhan, Mr. Ngo Quang Thanh, Ms. Hien Pham and Mr. Do Huy Thiep from CAP/IPSARD, and Ms. Maria Fibæk, Dr. Theodore Talbot and Mr. Ulrik Richardt Beck from UoC/DERG. Professor Finn Tarp from UoC/DERG and Director of UNU-WIDER coordinated and supervised the research effort through all its stages.

Our work would not have been possible without professional interaction, advice and encouragement from a large number of individuals and institutions. We would in particular like to highlight our thanks:

- For the productive and stimulating collaboration with the survey and data teams from ILSSA. They were coordinated by Dr. Nguyen Thi Lan Huong and her staff including Head of Personnel and Administration Division and coordinator of the survey teams, Mr. Le Ngu Binh, Ms. Chu Thi Lan, Deputy Director of the Centre for Informatics, Strategic Analysis and Forecasting, and researchers Ms. Nguyen Hai Ninh and Ms. Nguyen Phuong Tra Mi. The survey would not have been possible without the efforts of these and many other ILSSA staff too numerous to name here in compiling the questionnaires, training enumerators, implementing the survey in the field, and cleaning the data.

- To colleagues at CIEM and CAP-IPSARD for their guidance and support throughout the process, in particular Project Assistants Ms. Do Hong Giang and Ms. Bui Phuong Lien who have been tireless in providing support for the projects that enabled the production of this report.

- To the many staff at the Danish Embassy, who have supported us in our work, particularly Ms. Lis Rosenholm, Deputy Head of Mission, Ms. Nguyen Thi Thu Hang, Senior Programme Manager for Fisheries and Agriculture, and Ms. Vu Huong Mai, Senior Programme Manager for Business Sector Development.

As part of the research process and capacity building a variety of efforts were pursued, and we would like to highlight:

- In January 2013, Dr. Carol Newman, together with Dr. Theodore Talbot, Ms. Maria Fibæk

and Professor Finn Tarp from the University of Copenhagen, led a one week intensive course in applied economic analysis using the data collected under the VARHS 2012 at CAP-IPSARD in Hanoi. Over 20 participants from CAP-IPSARD, CIEM, and Agroinfo Vietnam attended the course.

- In November and December 2012, the entire core team, including five Vietnamese members, met at UoC for an intensive series of joint working and training sessions with UoC/DERG members related to the analysis of the data and elaboration of this report. This visit and subsequent interaction in Vietnam was essential in completing the study.

Moreover, the study team would like to express a deep appreciation for the time that more than 3,700 rural households in 12 provinces of Vietnam made available in 2012 during the interviews carried out as part of this study. It is hoped that the present report will prove useful in the search for policies geared towards improving their livelihoods.

Finally, while advice has been received from many colleagues and friends, the research team takes full responsibility for any remaining errors or shortcomings in interpretation. All the usual caveats apply.

INTRODUCTION

Following the successful implementation of the *Doi Moi* reform programme, Vietnam has experienced outstanding economic progress, for example in aggregate output and poverty reduction. For many years, Vietnam developed much faster than the typical developing country. Figure 1 shows that from 1988 to 2006, GDP per capita growth was consistently higher in Vietnam than in the average low- or middle income country. From 2007 onwards, however, Vietnam stopped outperforming other developing countries, partly due to a rise in the growth rates of other countries, and partly due to a slowdown in Vietnam. The slowdown is partly a result of the International Financial Crisis in 2008-2009 but the figure shows that while other developing countries were initially hit harder by the crisis than Vietnam, they also rebounded more strongly.

Figure 1: GDP per Capita Growth

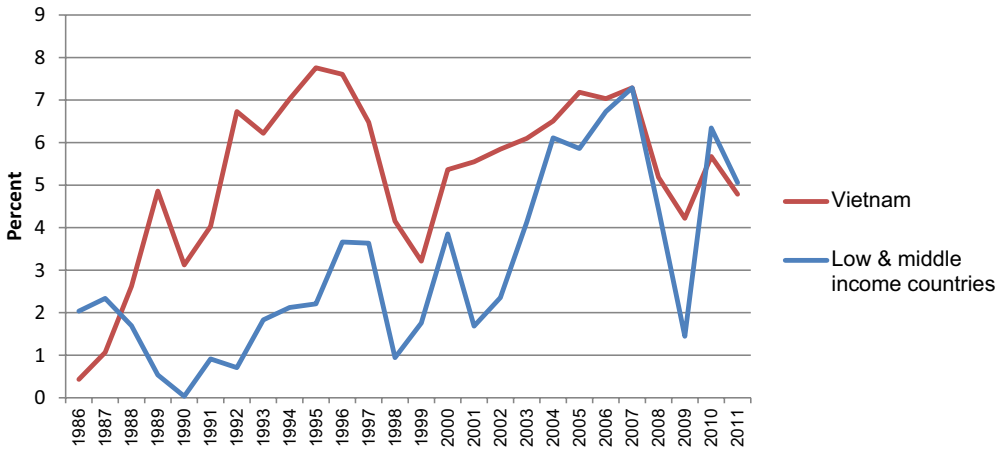


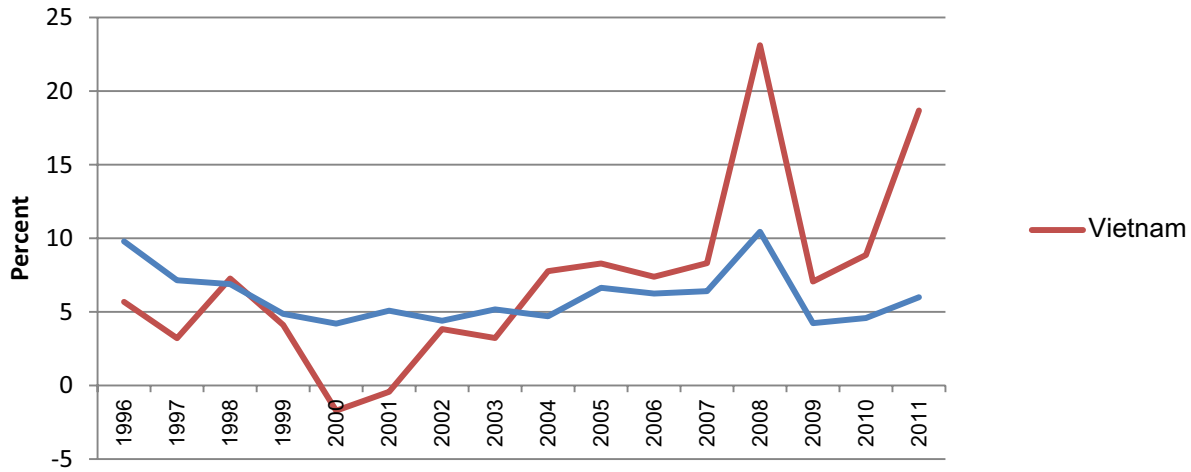
Figure 2 shows a similar pattern for inflation. Until 2007, Vietnam had inflation rates that are similar to other developing countries. Since then, prices have increased significantly faster in Vietnam than elsewhere.

These well-known facts underscore a simple point: continued, successful development in Vietnam cannot be taken for granted. To maintain high levels of growth and ensure macroeconomic stability, Vietnamese policymakers and citizens must constantly adapt to changing circumstances. The overall purpose of the VARHS survey is to contribute to making sure that this process is informed by high-quality, systematic, and rigorous evidence. In particular, the survey collects detailed information about a large range of economic and social aspects of the lives of households in rural areas of 12 provinces in North, South, and central Vietnam.

While the survey includes respondents from all parts of the country, a disproportionately large

number of households are sampled in poor upland provinces in the North-West and Central Highlands. In addition to providing general information about development in rural Vietnam, the survey and this report are particularly concerned about highlighting the fact that these regions continue to lag behind other regions in a number of dimensions, and to understand why that is the case.

Figure 2: Inflation (CPI)



Source: World Development Indicators.

As in the reports based on previous rounds of the VARHS survey, this report maintains a strong focus on income-generating activities, land relations, financial markets, risk-coping and social capital (CIEM 2007, 2009, 2011). However, compared with the report published in 2011 (based on the 2010 round of VARHS), this report includes wholly new chapters and sections on food security, household enterprises, livestock and aquaculture, common property resources, migration and remittances, social problems, such as crime and gambling, and happiness.

Some of these chapters were made possible by the fact that the VARHS questionnaire in 2012 was augmented to include new sections on migration and remittances, social problems, happiness, and constraints to the expansion of household enterprises. These additions to the questionnaire reflect the need to understand the fast-changing circumstances of rural areas, where migration and non-farm enterprises play increasingly important roles. While these changes are natural components of a process of economic development, citizens and policy makers need to handle them in ways that minimize economic inequality and social problems.

The report is based on a sample of 2,741 rural households. The majority of these households are re-sampled from the 2004 VHLSS sample in rural areas of the 12 VARHS provinces, ex-Ha Tay, Phu Tho, Lao Cai, Dien Bien, Lai Chau, Nghe An, Quang Nam, Khanh Hoa, Dak Lak, Dak Nong, Lam Dong and Long An (and from the 2002 VHLSS sample in Ha Tay, Phu Tho, Quang Nam and Long An). However, because this strategy cannot include households that

came into existence after 2004, the former VHLSS-based sample is somewhat biased toward older households. To solve this problem, and to replace households that could not be re-interviewed, the sample for the 2012 VARHS was expanded by 544 new households, sampled from the 2009 census. Fifty households were sampled from the general population in order to replace households that could not be re-interviewed. The remaining households were sampled exclusively from households with young heads. This ensures that the VARHS sample is now representative of the rural population in each of the 12 provinces covered.[1]

The report mainly focuses on presenting results for the 2,741 households. However, in some cases it is interesting to compare results from the 2012 VARHS with results from earlier rounds of the survey. Since the 544 households added to the sample in 2012 are not available in earlier years, we base such comparisons on the "panel sample" of 2,197 households for which data is available in 2012 and earlier years. This ensures that results from different rounds of the survey are comparable. Due to missing data, the numbers of observations in the figures and tables presented below may in some cases differ somewhat from the numbers stated here.

All money value figures included in this report are inflation-adjusted to reflect changes in prices over time and differences in prices across regions. The price index used was constructed using data from the Vietnamese Household Living Standards Survey in 2008 to generate comparable regional Consumer Price Indices for 2008. Data from the General Statistics Office were then used to measure within-province inflation from July 2008 to June 2012. These changes in prices are applied to the regional data for 2008 to generate a Consumer Price Index that can be used to express all value figures in constant ex-Ha Tay prices.

The outline of the report is as follows: Chapter 1 presents basic information on the report sample and on living standards, education and food security. Chapters 2 to 7 all focus on income-generating activities. In particular, Chapter 2 presents a general overview of different types of income sources and analyses wage employment in detail. Chapter 3 investigates the role of non-farm, household enterprises. Chapter 4 explores land rights, land markets and land-related investment, while Chapter 5 analyses crop agriculture and Chapter 6 investigates the role of livestock and aquaculture. Chapter 7 focuses on common property resources, such as fishing in common rivers and lakes. Chapter 8 investigates the frequency and severity of economic shocks experienced by households, and how households cope with such shocks through savings, borrowing, insurance and other strategies. Chapter 9 analyses migration of household members to other areas and chapter 10 investigates social capital, social problems and happiness. A concluding chapter sums-up and highlights key conclusions, aiming at adding perspective.

1 Data are also available on 945 additional households from the five provinces covered by the ARD-SPS programme, namely Lao Cai, Dien Bien, Lai Chau, Dak Lak and Dak Nong. The purpose of surveying these households was to evaluate the effects of a range of measures under the ARD-SPS programme. Since the sampling strategy used for these households was specific to the introduction of this programme these households are not included in this report. They are included in other studies based on VARHS.

CHAPTER 1: POVERTY, LIVING STANDARDS AND FOOD SECURITY

1.1 Introduction

In this chapter we present and discuss results on poverty, living conditions, and food security. In each table or figure we show detailed statistics disaggregated by province, gender of the household head, and by socioeconomic status defined by food expenditure quintile. Results from 2010 are also included where relevant in order to investigate changes over time.

This chapter examines general characteristics of great importance to overall living standards. While it does not aim to undertake a poverty analysis, nevertheless, poverty dynamics are explored alongside living conditions such as access to safe water and garbage disposal. Finally, food security status, measured by a food diversity index and consumption of protein sources, is presented.

1.2 Poverty Dynamics

Table 1.1 presents summary statistics for gender, ethnicity, and main language spoken in the household, as well as the percentage of households that are classified as poor by MoLISA[2] in each province.

The table displays some interesting facts. The majority of household heads are male with the highest proportion of 91 percent found among households in Lai Chau and the lowest proportion of male-headed households found in Khanh Hoa, where 31 percent of household heads are female.

The largest ethnic group in Vietnam is the Kinh people. Unsurprisingly, the head of the household belongs to the Kinh people in 79 percent of the households interviewed. Yet, as Table 1.1 clearly demonstrates, there is significant variation across provinces. In the mountainous provinces in Northern and North-western Vietnam (Lao Cai, Lai Chau, and Dien Bien), a low number of ethnic Kinh household heads are found due to a large number of ethnic minorities residing in these provinces.

The lowest number of ethnic Kinh is found in Dien Bien, where less than 10 percent of household heads belong to this ethnic group.

2 Acronym for Ministry of Labour, Invalids, and Social Affairs (MoLISA).

Table 1.1: General Household Characteristics by Province

	HH survey, number	HH survey,b percent	Gender of HH head, percent male	Ethnicity of HH head, percent Kinh	HH head speaking Vietnamese, percent	Vietnamese main language of HH, percent	HH classified as poor by authorities, percent
Total 2012	2.741	100.0	79.2	79.4	98.9	83.7	17.9
Province							
Ha Tay	588	21.5	78.9	98.8	100.0	100.0	9.5
Lao Cai	107	3.9	89.7	24.3	89.7	43.9	43.9
Phu Tho	377	13.8	78.0	80.6	100.0	96.0	13.5
Lai Chau	135	4.9	91.1	14.1	92.6	22.2	37.0
Dien Bien	131	4.8	87.8	9.2	98.5	12.2	35.9
Nghe An	228	8.3	81.1	89.0	99.6	89.5	18.0
Quang Nam	338	12.3	74.0	97.0	100.0	97.9	21.6
Khanh Hoa	110	4.0	68.2	88.2	100.0	88.2	19.1
Dak Lak	165	6.0	84.2	70.3	97.6	73.3	22.4
Dak Nong	143	5.2	83.2	72.7	100.0	76.2	24.5
Lam Dong	80	2.9	80.0	60.0	98.8	62.5	15.0
Long An	339	12.4	72.6	99.7	100.0	100.0	6.2
Total 2012 panel	2,197		78.0*	79.9*	99.0	84.1	17.2***
Total 2010 panel	2,197		78.8*	79.6*	98.8	84.0	13.1***

N = 2,741

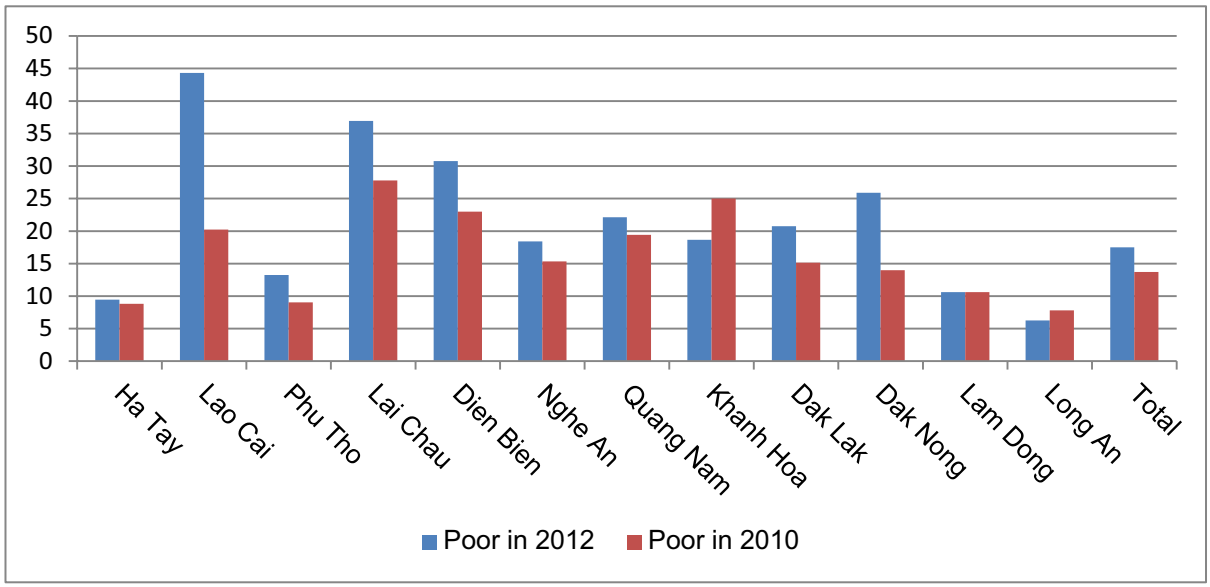
*Note: *Difference between 2010 and 2012 is significant at 10 percent level; *** significant at 1 percent level.*

The majority of household heads speak Vietnamese, but there is significant variation in whether Vietnamese it the main language spoken in the household, with the lowest prevalence in those provinces with a lower level of household heads belonging to the Kinh ethnic group.

Table 1.1 shows that 17.9 percent of the surveyed households are classified as poor by MoLISA. In Long An and Ha Tay we find the lowest number of poor households in our sample whereas the largest proportion of poor households are located in Lao Cai, Lai Chau, and Dien Bien. The table presents the same statistics for the households we have interviewed in both 2012 and 2010 allowing for comparisons over time. Overall, the change in general household characteristics from 2010 to 2012 has been small.

This is not a coincidence, as we follow the same households over time. However, it should be noted that poverty has increased significantly from 2010 to 2012 (17.2 percent of the sample in 2012 compared to 13.1 percent in 2010). The explanation behind this change is that the poverty line has been increased by MoLISA for the period 2011-2015.[1] In Figure 1.1 we explore the change in more detail by looking at change in poverty at provincial level.

Figure 1.1: Changes in Poverty Status between 2010 and 2012 by province (percent)

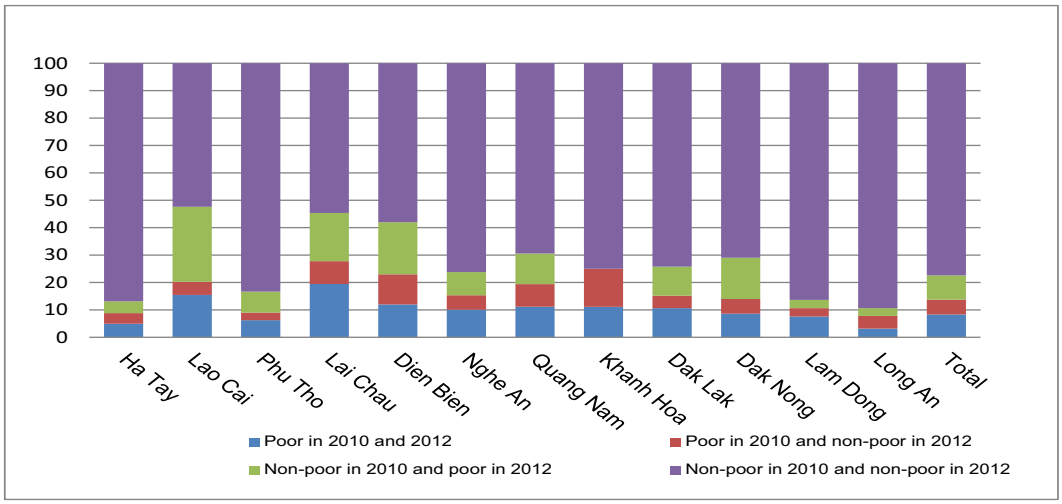


N=2,197

Figure 1.1 demonstrates changes in poverty status in 2012 and 2010 by province. The figure shows that not all of the sampled provinces saw an increase in poverty rates, even as poverty lines have been raised by the authorities. There is an upward trend in poverty in the majority of the sampled provinces, but three provinces show a downward trend, namely Khanh Hoa, Lam Dong, and Long An. Lam Dong is an interesting case as it is in the Central Highlands where nearly 40 percent of the population belongs to ethnic minorities (see Table 1.1).

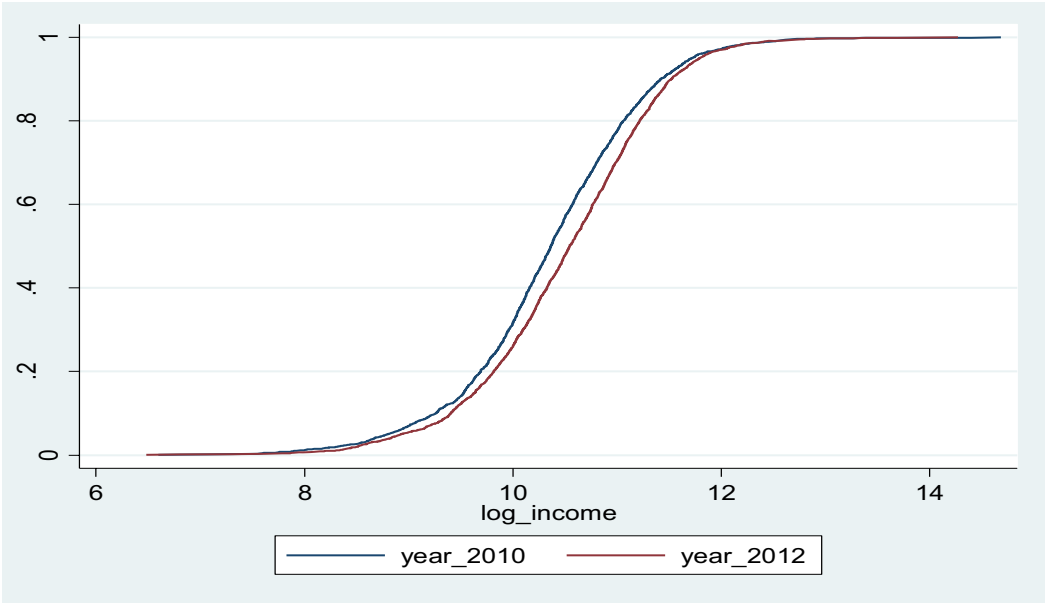
Figure 1.2 explores poverty dynamics to investigate which provinces have the most vulnerable households. Figure 1.2 indicates that Lao Cai, Lai Chau, and Dien Bien have a high share of vulnerable households moving from non-poor to poor over the two-year period. Khanh Hoa, Lam Dong, and Long An have the highest ratio of households moving from poor to non-poor between survey rounds compared to the number of households moving in the opposite direction. We investigate changes in poverty by looking at changes in the distribution of households' net incomes[2] in the period 2010 to 2012. Figure 1.3 shows the cumulative distribution of real household income for 2010 and 2012. To minimise the influence of households with exceptionally high or low recorded income, the natural logarithm of income is used.

Figure 1.2: Poverty Dynamics between 2010 and 2012 by Province (percent)



N=2,197

Figure 1.3: Cumulative income distribution in 2010 and 2012.



The distribution of (log) income in 2012 lies to the right of that in 2010, showing that average incomes increased between survey rounds. Similarly, poverty is lower in 2012 than in 2010 regardless of which poverty line is used. The VARHS data therefore suggests that the increase in the share of households classified as poor by MoLISA is purely due to the change in the poverty line, rather than to changes in actual poverty levels.

1.3 Education

In this section, we present statistics on education. Table 1.2 presents data on formal education of the head of the household in 2012. For the entire sample, the percentage of household heads that cannot read or write is only 1.3 percent. However, there is variation among those that cannot read or write across ethnicity with non-Kinh heads having a higher prevalence of illiteracy (2.7 percent) compared to Kinh household heads (1 percent).

Nine percent can read and write but never went to school, and 24 percent left school after completing primary school while 45 percent of the sample completed lower secondary school. One fifth of the sample managed to complete upper secondary school. More male than female heads completed either lower or upper secondary school. For example, 48.4 percent of males completed lower secondary school compared to 33.5 percent of female heads.

Table 1.2: Highest Formal Education Level of HH Head 2012 (percent)

	Cannot read and write	Completed lower primary	Completed lower secondary	Completed Upper secondary	Can read and write but never went to school
Total 2012	8.3	24.2	45.1	20.4	2.1
Gender of HH head					
Female	13.1	36.4	33.5	12.3	4.7
Male	6.9	21.0	48.4	22.3	1.4
Ethnicity of HH head					
Non Kinh	26.0	26.5	35.2	8.5	3.7
Kinh	3.6	23.6	47.9	23.3	1.7
Poverty classification					
Non poor	5.4	21.9	48.3	22.8	1.6
Poor	21.0	34.6	31.6	8.6	4.3
Food expenditure quintile					
Poorest	23.6	36.0	29.0	6.0	5.4
2nd poorest	13.5	26.2	46.6	10.6	3.1
Middle	5.9	26.3	46.8	19.5	1.6
2nd richest	3.7	22.9	48.9	23.1	1.4
Richest	2.9	16.4	46.8	33.3	0.6
Total 2012 panel	8.7	26.0	45.7	17.5	2.2
Total 2010 panel	9.0	26.7	43.8	18.4	2.0

Poor households are clearly less educated with almost five percent reporting that they can read and write, yet never went to school (for non-poor households the figure is 0.6 percent). The same tendency is seen across food expenditure quintiles. Just 6 percent of heads in the poorest households have completed upper secondary school compared to one third of heads in the richest households.

We can compare educational level of the head of the household in 2010 and 2012. Table 1.2 indicates that for the panel of households surveyed in both 2010 and 2012, educational status has not changed significantly over the two-year period. The discrepancies between educational level of the full 2012 sample and the 2010/2012 panel sample are due to an inclusion of younger households in 2012. There is a small decrease in the number of illiterate household heads between the two survey rounds.

In Table 1.3 we further investigate educational status of household heads by looking at the level of professional education obtained by the head. Table 1.3 presents statistics of professional education of head in 2012 by gender, ethnicity, and poverty status.

Table 1.3: Highest professional education level of HH head 2012

	No Diploma, percent	Short term Vocational training, percent	Long term Vocational training, percent	Professional high school, percent	College or University, percent	Total	Sample size
Total 2012	76.6	13.7	2.0	4.1	3.6	100	2,696
Gender of HH head							
Female	86.4	7.0	0.7	2.6	3.2	100	568
Male	74.3	15.4	2.4	4.5	3.5	100	2,157
Ethnicity of HH head							
Non Kinh	86.8	7.1	1.4	3.7	0.9	100	562
Kinh	74.2	15.3	2.2	4.2	4.1	100	2,163
Poverty classification							
Non poor	74.2	14.6	2.2	4.8	4.2	100	2,238
Poor	88.7	9.4	1.0	0.8	0.0	100	487
Food expenditure quintile							
Poorest	90.9	6.4	0.6	1.5	0.6	100	332
2nd poorest	84.3	11.0	1.4	2.5	0.8	100	525
Middle	80.2	12.8	2.2	3.4	1.4	100	565
2nd richest	73.3	15.7	2.0	4.4	4.6	100	640
Richest	63.9	18.3	3.0	7.0	8.1	100	663
Total 2012 panel	80.7	11.8	1.7	3.4	2.4	100	2,105
Total 2010 panel	86.8	5.7	1.2	4.0	2.3	100	2,105

N 2012 = 2,969 (N 2012 panel = 2,105; N 2010 panel = 2,105)

Table 1.3 shows that the majority of the household heads – almost 77 percent – have no professional education. Some 13.7 percent have short-term vocational training. As with formal education, we see variation across ethnicity, gender, and poverty level.

Nearly 87 percent of the non-Kinh household heads do not have any professional education (for heads who are Kinh the figure is 74.2 percent). Female heads are also less likely to have a professional education compared to male heads (86.4 percent for females and 74.3 for males).

A total of 63.9 percent of the richer households' heads have no diploma. The figure is almost 91 percent for the poorest household heads (a difference of 27 percentage points).

If we compare the professional educational level of the heads that are part of the panel, we witness a statistically significant increase in the percentage of heads that have some form of professional education. Heads reporting having no diploma has fallen from almost 87 percent to close to 81 percent. The decline is largely due to an increase in heads that have completed some form of short-term vocational training.

1.4 Living Conditions

In this section, we consider important aspects of the living conditions of rural households, such as access to safe water, quality of housing, energy use, and garbage disposal.

Quality of housing

Housing quality is a strong indicator of prosperity. The VARHS collects data on the material used for constructing residential building floors, walls, and roofs. Solid material such as cement, brick, and concrete is considered good quality material.

Table 1.4 presents statistics on housing. Dien Bien has the lowest prevalence of households with good quality housing whereas households in Ha Tay on average live in much higher quality buildings; for example, 98 percent of the households from Ha Tay have solid floors compared to less than one fifth of houses in Dien Bien. Female headed households are more likely to have solid floor, walls, and roof. As with many of the other living conditions, the richest households are better off as they have a higher share of houses with good quality floor, walls, and roof.

If we compare the households that are part of the panel we see that the overall quality of housing has increased slightly. In 2010, almost 80 percent of households had high-quality floors and 72.3 percent had high-quality walls. In 2012, the figure is 84.4 percent and 76.3 percent respectively. The estimated increase in quality of housing among the households surveyed in 2012 and 2010 is statistically significant. This supports the view that the increases in poverty reported above are due to changes in the poverty line rather than a real drop in welfare.

Table 1.4: Quality of Housing (percent)

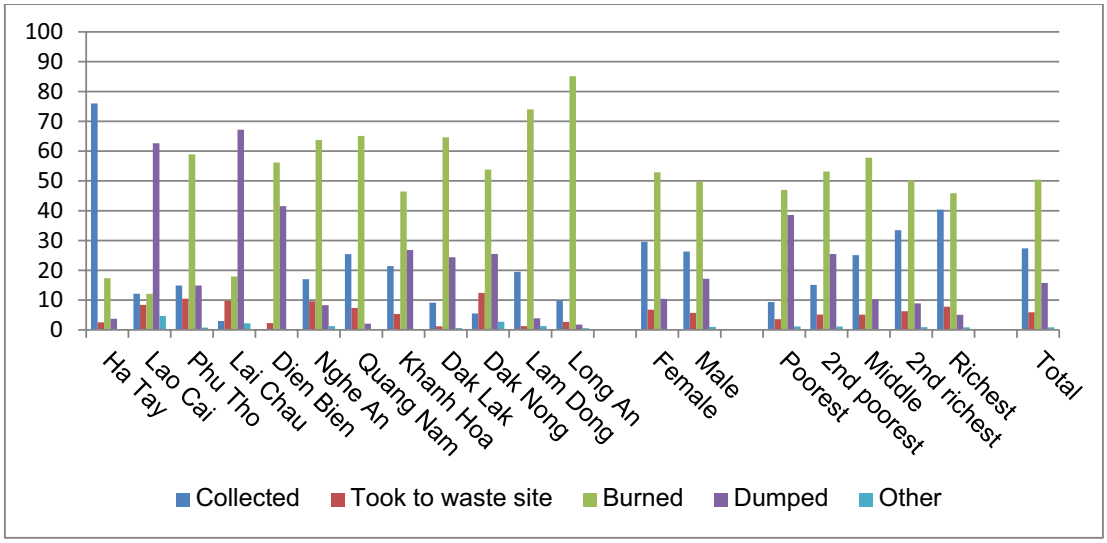
	Floor in cement brick or marble/tiles	Outer walls in brick, stone or concrete	Roof in concrete, cement or tiles
Total 2012	85.5	76.6	57.3
Province			
Ha Tay	97.6	98.3	88.6
Lao Cai	57.0	29.0	31.8
Phu Tho	92.4	83.5	65.7
Lai Chau	39.6	14.2	30.6
Dien Bien	18.5	10.8	27.7
Nghe An	90.4	90.4	91.3
Quang Nam	95.0	92.0	61.2
Khanh Hoa	97.3	95.5	53.6
Dak Lak	86.0	61.6	42.1
Dak Nong	91.7	56.6	42.8
Lam Dong	92.2	64.9	10.4
Long An	85.1	80.4	18.5
Gender of HH head			
Female	90.3	83.8	58.4
Male	83.7	74.1	56.5
Food expenditure quintile			
Poorest	66.9	52.1	42.3
2nd poorest	81.5	70.9	52.2
Middle	89.3	80.7	63.4
2nd richest	92.8	85.8	60.3
Richest	94.7	90.8	66.9
Total 2012 panel	84.4***	76.3***	58.7
Total 2010 panel	79.9***	72.3***	59.8

*Note: *Difference between 2010 and 2012 is significant at 10 percent level; *** significant at 1 percent level.*
N 2012= 2,543 (N 2012 panel =2,197, N 2010 panel = 2,197)

Access to services

Figure 1.4 shows the distribution of garbage disposal across households, which we consider to be an important proxy for, and determinant of, environmental sanitation and health. The figure shows that the majority of households burn their garbage. The percentage of households where garbage is collected is highest in Ha Tay (76 percent) and lowest in Dien Bien where no households had their garbage collected. Female-headed households are more likely to have their garbage collected, as are richer households (31 percent) compared to the poorest (9 percent).

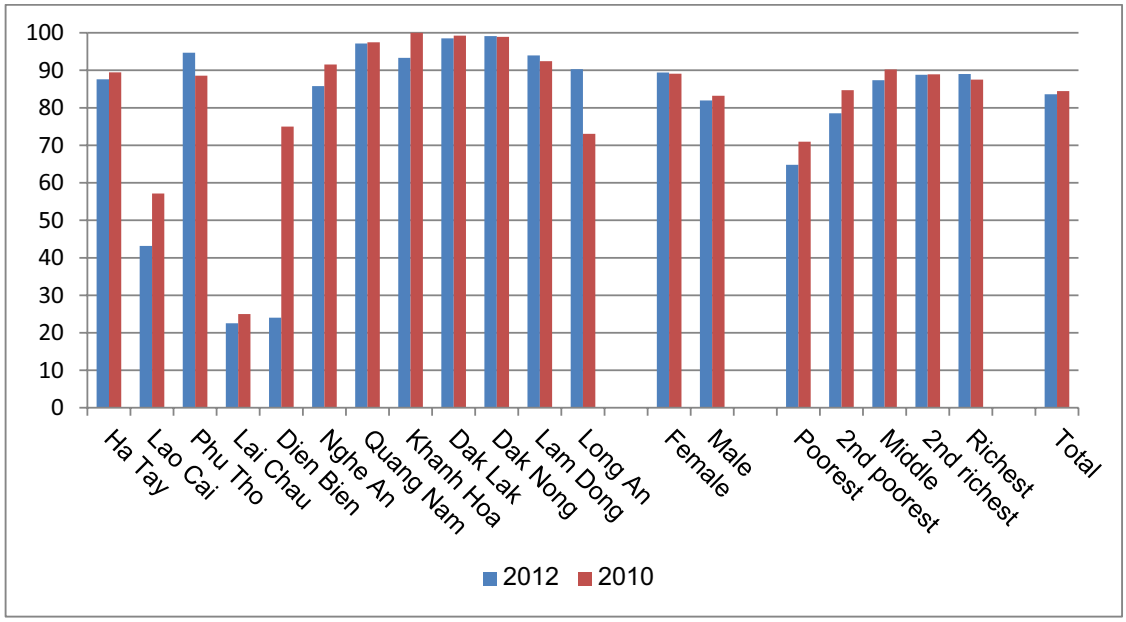
Figure 1.4: Distribution of Garbage Disposal (percent)



N=2,741

Figure 1.5 presents a comparison of households' access to safe water[3] in 2012 and 2010.

Figure 1.5: HHs with Access to Safe Water for Cooking or Drinking (percent)



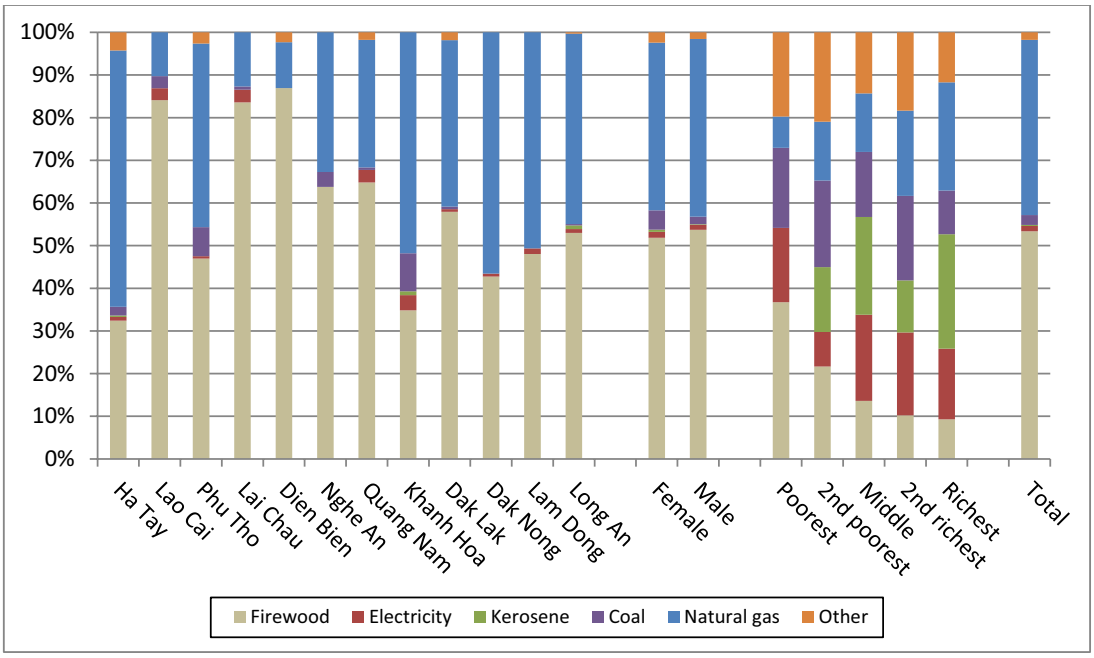
N= 2,741

3 The following water sources are considered safe: private or public tap water, bought water (tank or bottle), water pumped from deep drill wells, water from hand-dug and reinforced wells, and water tank. Water from spring, river, lake, pond, and other sources not specified are considered unsafe.

The figure shows that overall, 84 percent of households had access to safe water in 2010 and 2012, yet there is a large variation across provinces. Access to safe water is low in the mountainous provinces of Lao Cai and Lai Chau where 43 percent and 23 percent respectively had access to safe water in 2012. Dak Lak, Lam Dong, and Dak Nong - all provinces situated in the Central Highlands - report relatively good access to water with almost 100 percent of the households surveyed having good access.[4]

We next consider energy use: improvement in living conditions is associated with a decrease in the use of firewood. Figure 1.6 presents differences in the main energy source for cooking used by households in 2012. Overall, 53 percent of households use firewood and 41 percent use natural gas for cooking. Yet, the figure shows that there are substantial discrepancies in main energy source used for cooking across households. As can be seen from the figure, the poor are more dependent on firewood for energy (58 percent) compared to the richest food expenditure quintile (38 percent). The figure shows large variation across provinces. Lao Cai and Dien Bien have a very high majority of households depending on firewood (84 percent and 87 percent, respectively) compared to the richer provinces of Ha Tay (32 percent) and Khanh Hoa (35 percent).

Figure 1.6: Distribution of Main Energy Source for Cooking (percent)



N=2,739

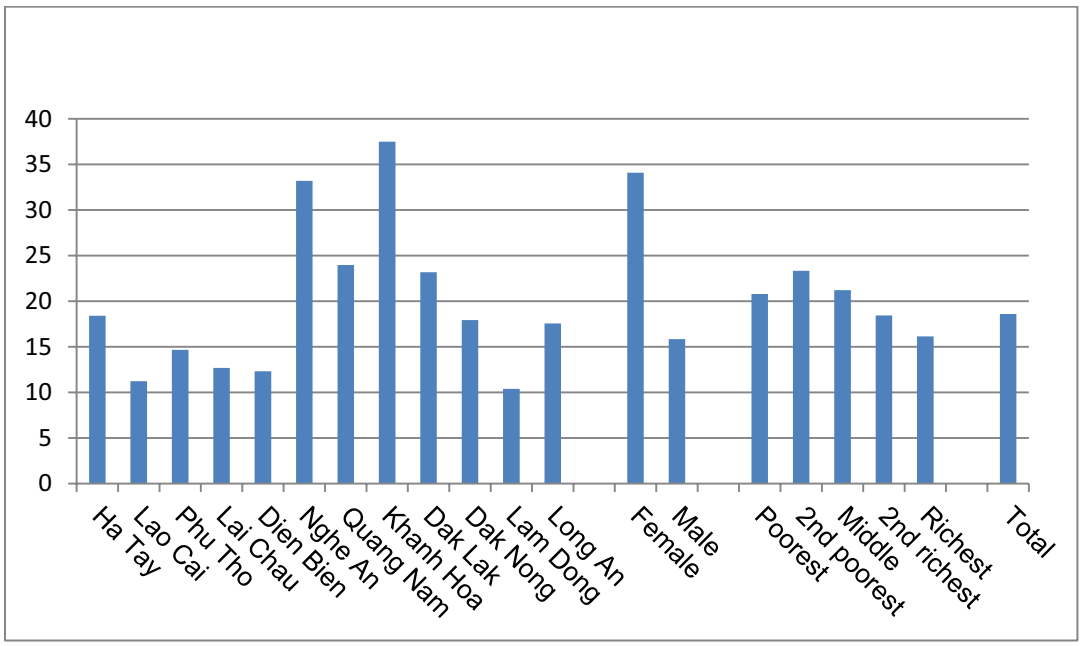
In Figures 1.7 and 1.8, we look at illnesses suffered among household members during the two weeks prior to being surveyed. Figure 1.7 presents the percentage of households reporting

4 The large drop in access to safe water in Dien Bien province between 2010 and 2012 is difficult to explain. We suspect that it may result from data errors.

one or more sick family members. Overall, 19 percent of the households in the sample had one or more sick household members, but this number varies a lot across province and food expenditure group.

The poor are more likely to have had a sick member of the household (32 percent) compared to the richest group of households (15 percent). Lam Dong reported the lowest number of households with a sick member (10 percent) while Khanh Hoa reported the highest (38 percent). Female-headed households are more likely to have had one or more sick family members. One explanation for the difference in this statistic across gender of household head is that female heads are significantly older than male heads which could make them more vulnerable to diseases.

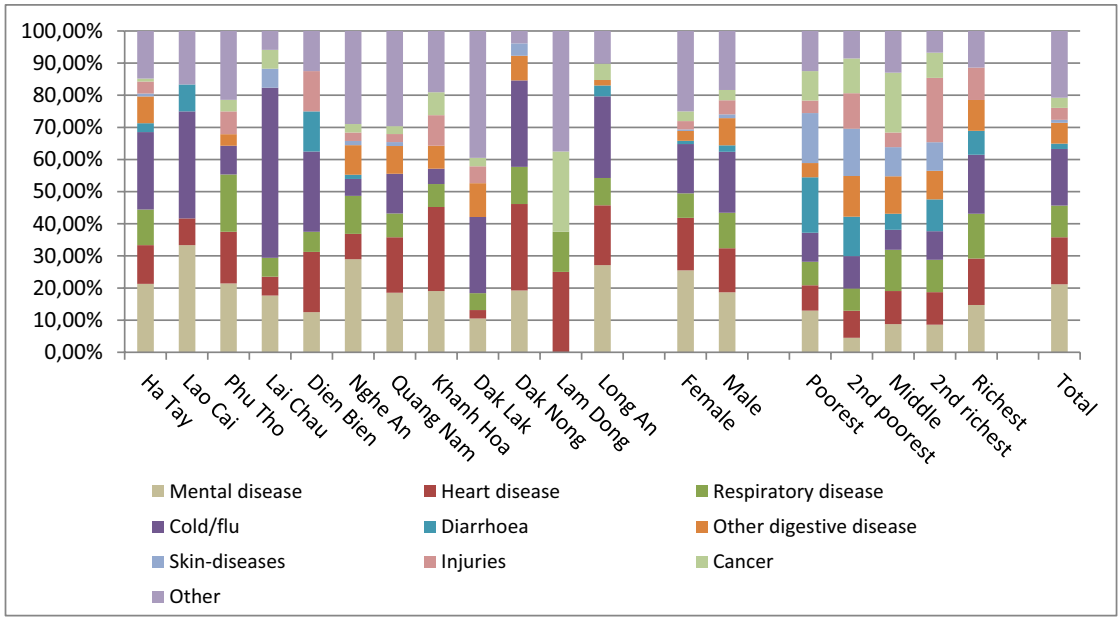
Figure 1.7: Proportion of HHs with Sick Members - Past Two Weeks (percent)



N= 2,543

In Figure 1.8 we look at the most serious illness suffered by the household members that were sick. The figure shows that mental disease, heart disease and cold/flu are among the most common illnesses, whereas diarrhoea and skin-diseases are less frequent. The poor are more likely to have suffered from mental illness (24 percent versus 18 percent) whereas the rich are more likely to have had a cold or a flu (21 percent versus 13 percent).

Figure 1.8: Most Severe Illness Affecting HHs - Past Two Weeks (percent)



N = 539

We next consider access to important services – hospital, primary school, and the People's Committee. Table 1.5 provides statistics on access to these services measured by the median distance in kilometers between the household and the nearest point of service provision.

There is little variation across provinces in distance to primary school and People's Committee Office. On average the distance to primary school is 1 km. The households in the province of Long An have the largest distance of 2 km to primary school. The average distance to the People's Committee Office is 1.2 km. Households from Dak Lak have the largest distance of 2.5 km. There is almost no variation across food expenditure quintiles.

Distance to hospital varies quite a lot. Households in Lam Dong are on average 20 km from the nearest hospital while households from Khanh Hoa and Ha Tay report a relatively short average distance of 5 km. The average for all surveyed households is 8 km.

Table 1.5: Distance to School, Hospital and People's Committee Office (in km, median)

	Distance to primary school	Distance to hospital	Distance to People's Committee Office
Total 2012	1.0	8.0	1.2
Province			
Ha Tay	1.0	5.0	1.0
Lao Cai	1.0	10.0	2.0
Phu Tho	1.0	7.0	1.0
Lai Chau	1.0	12.0	1.5
Dien Bien	1.5	13.0	2.0
Nghe An	1.0	8.0	1.2
Quang Nam	1.5	7.0	2.0
Khanh Hoa	1.0	5.0	1.0
Dak Lak	1.1	13.0	2.5
Dak Nong	1.5	10.0	2.0
Lam Dong	1.5	20.0	1.5
Long An	2.0	8.0	2.0
Gender of HH head			
Female	1.0	7.0	1.4
Male	1.0	8.0	1.5
Food expenditure quintile			
Poorest	1.2	11.0	2.0
2nd poorest	1.0	9.0	1.5
Middle	1.0	7.4	1.5
2nd richest	1.0	7.0	1.2
Richest	1.0	7.0	1.0

N =2,741

1.5. Food Security

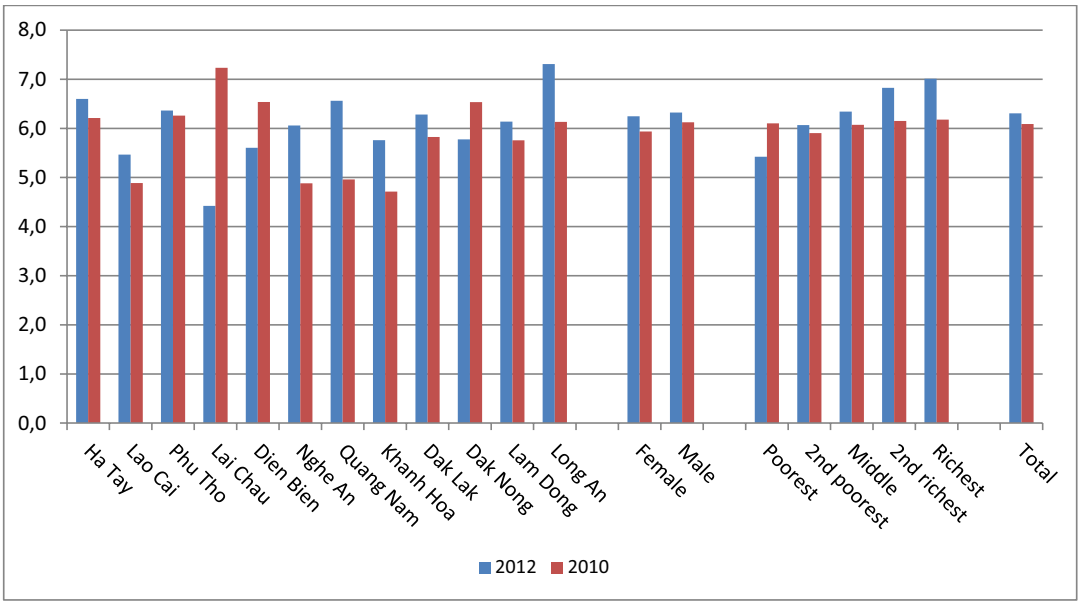
In this section we present statistics on food security, measured by a food diversity index and by total number of protein sources consumed by the household within the past 24 hours. A diverse diet and protein intake are important determinants of key health outcomes, including cognitive outcomes and vulnerability to disease (see e.g. Arimond and Ruel, 2004; WHO, 2012). Figure 1.8 shows a food diversity index for 2010 and 2012. The index is defined as the total number of food items consumed out of a list of the following 11 items: cereals, roots and tubers, vegetables, fruits, meat/poultry/offal, eggs, fish and seafood, pules/legumes/nuts, milk and milk products, oil/fats and sugar/honey.

A large diversity in food consumption is associated with a higher degree of food security and better health.[5] Respondents in the survey were asked to report whether or not they consumed

5 The World Health Organization uses four as the minimum number of food groups a child should have consumed in the last 24 hours in order to reach a minimum micronutrient density of foods. Lack of micronutrient density of

items from the list of the 11 different food groups within the last 24 hours. Food diversity has increased slightly from 2010 to 2012. On average, households consumed 6.1 food items in 2010 compared to 6.3 in 2012.

Figure 1.9: Food diversity index



N = 2,741

However, the figure clearly demonstrates variation across provinces and rich and poor households. The rich households consumed an average of seven types of food in 2012 (an increase from 6.2 in 2010). Poor households have seen a decline in their food diversity over the two-year period (5.4 in 2012 compared to 6.1 in 2010). Households in Long An reported the most diverse diet, where they consumed 7.3 different food types on average. Consumption diversity is lowest in Lai Chau, just 4.4 food types (a decline from 7.2 in 2010). Figure 1.9 shows the number of different protein sources consumed by the household in the past 24 hours.

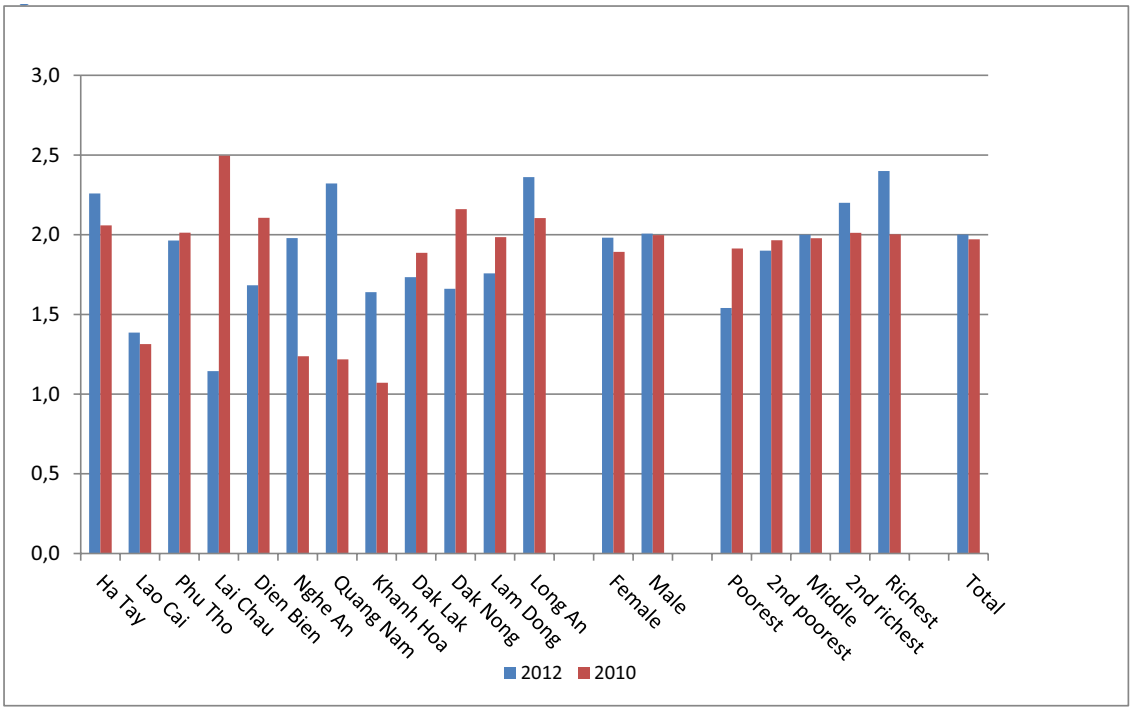
Protein is important especially for children below five years of age, since lack of protein can cause children to have a low height for their age (also known as chronic malnutrition or "stunting"). Chronic malnutrition affects a child's cognitive abilities and impacts learning ability (Behrman and Hoddinott, 2000; WHO, 2007). WHO (2007) provides standard minimum requirements of daily protein for adults and children measured in kilogram. The survey did not collect measures of protein consumption in kilograms, however. Instead we assume that having access to several protein sources increases the likelihood of meeting the minimum

food is correlated with child under-nutrition or even mortality (WHO, 2010).

daily requirements set by the World Health Organization (WHO, 2007). The list of protein items includes the following: meat/poultry/offal, eggs, fish and seafood, pulses/legumes/nuts, milk and milk products.

Figure 1.10 shows the average number of protein sources consumed by households in 2010 and 2012. Nearly 4 percent of all households consumed zero protein sources in the 24 hours prior to being surveyed. The majority of the households that had not consumed protein are in the relatively poorer provinces of Lai Chau and Dien Bien (25 and 16 percent respectively). Out of a maximum of five, households on average consumed two protein sources in both years. Richer households consumed 2.4 sources while poorer households consumed 1.5. The figure demonstrates the large cross-province variation in this statistic. Households in the central highlands consumed one more item on average than households in Northern Vietnam. The food diversity index and the intake of protein sources combined show a drop in levels of food security in Lai Chau and Lao Cai, where the intake of protein sources fell from 2.5 items in 2010 to just 1.1 items in 2012.

Figure 1.10: Number of Protein Sources Consumed - Past 24 hours



N = 2,741

1.6 Summary

This chapter presented detailed information on important characteristics of the rural households surveyed. The changes in basic characteristics such as main language and ethnicity are very

small, which is unsurprising given the static nature of these characteristics. The results demonstrate one very clear trend, namely that the mountainous provinces of Lao Cai, Lai Chau, and Dien Bien lag behind the other provinces in many important factors such as poverty mobility, access to services, education, and food security. For Lai Chau the data suggests that food security among the households surveyed has dropped significantly from 2010 to 2012. Many households in these three provinces continue to lag behind.

There has been an increase in the number of household heads with a professional education, mainly driven by an increase in the number of household heads that have completed short-term vocational training. Nevertheless, the education statistics show large discrepancies between poor and richer households and between male and female heads of households. Female-heads are on average less educated than male-heads. Quality of housing has also improved slightly as more households have good quality floors in 2012 compared to 2010. This is a positive indication of rural development and increased prosperity. The majority of households rely on firewood for cooking. However, we witness variation across food expenditure quintile. Some 58 percent of the poorest households still reply on firewood as their main energy source compared to 38 percent of the richest households. This is another indication of poorer households lagging far behind richer households in terms of living conditions. We see the same picture when we look at garbage disposal. Again, the poor are worse off than richer households, with 9 percent of poor households getting their garbage collected compared to 31 percent of the richer households.

We conclude that despite general improvements in terms of real income, access to services, and quality of housing, a significant share of households clustered in poorer provinces continue to lag behind.

References

Arimond, M. and Ruel, M.T, 2004. *Dietary Diversity Is Associated with Child Nutritional Status: Evidence from 11 Demographic and Health Surveys*. Journal of Nutrition. Vol. (134), pp. 2579-2585.

Behrman, J. and Hoddinott, J. 2000. *An Evaluation of the Impact of PROGRESA on Pre-*

School Child Height. Washington D.C.: International Food Policy Research Institute.

WHO, 2007. Protein and Amino Acid Requirements in Human Nutrition. WHO Technical Report Series no. 935.

WHO, 2012. Health indicators of sustainable agriculture, food and nutrition security. Presented at the Rio+20 UN Conference on Sustainable Development.

UNICEF, 2009. Vietnam: Provincial Profiles. http://www.unicef.org/vietnam/unicef_provincial_profiles.pdf. June 10, 2013.

CHAPTER 2: LABOUR AND INCOME

Vietnam's rural communities are increasingly linked to markets for goods and labour. While smallholder agriculture continues to dominate much of the country's economic landscape, rising wages, the increasing importance of non-farm household enterprises, and migration from rural to urban areas are collectively working to fundamentally change how Vietnamese households accumulate wealth. In addition to these structural changes in rural economies, the 2012 survey occurred against a backdrop of high but volatile economic growth and increasing price levels in many areas.

This chapter presents descriptive data about how households and individuals earn income and generate wealth and, as such, is pertinent to a large number of emerging policy discussions about the changing nature of rural production and labour supply. The chapter begins by studying how households across Vietnam earn income, with an emphasis on wage employment, which is an increasingly important source of overall household income.

The term "wage employment" describes working for an employer outside the household, and wages are reported in real terms relative to Ha Tay province in 2012, so they represent a common measure of real purchasing power. In addition to comparing wages across Vietnam in terms of quantity (the value of goods and services they purchase), we also study the quality of employment by examining how much workers earn and whether they have formal contracts. Understanding how rural households generate wealth is relevant to developing evidence-based policies to make sure rural areas can benefit more equally from Vietnam's remarkable economic expansion.

2.1 Income-Generating Activities in Rural Vietnam

The VARHS captures information about individuals within households, including all jobs undertaken by each household member. Because a respondent may do more than one job or perform more than one income-generating activity, specific sections of the survey collect information about each job done by each respondent in each household.

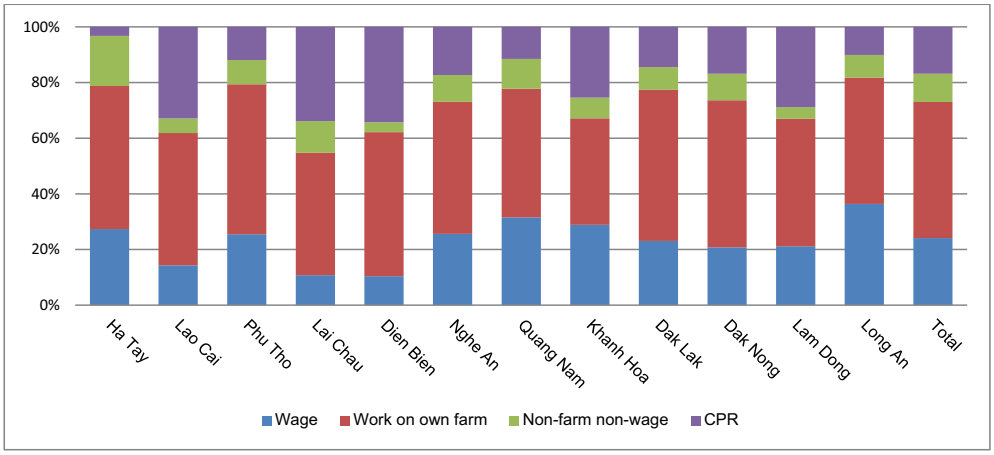
The 2012 survey uses four categories of income-earning activities: working on a household farm, working in a household enterprise, working for a wage outside the household, and using common property resources (CPRs), for example fishing from rivers or other commonly-owned bodies of water, or gathering resources from forests.

Increasing the number of formal and informal businesses requires hiring new workers, and economic growth is therefore generally associated with an increase in size of the labour force that earns a wage through formal or informal employment. However, because employment is often temporary or seasonal, and because many workers might be involved in more than one activity to earn income (for example, being employed by a local enterprise while running a household business), the relevant measure is the type and number of activities or jobs, rather than whether a respondent earns or does not earn income from a particular source.

Figure 2.1 shows the relative importance of each kind of activity across the VARHS provinces as

a share of the total number of activities in each province (a respondent can, and usually, does, participate in more than one activity): despite the growing importance of wage income and employment outside the home, a significant share of labour remains allocated to agriculture in the rural areas emphasized by the VARHS sample.

Figure 2.1: Breakdown of Activities by Type, within Province Shares (percent)



N = 6,544

Of the total number of activities observed in each province, working for a wage currently plays an important but smaller role, with a lot of variation in relative importance across provinces. Table 2.1 shows that of all income-earning activities in the 12 provinces surveyed, around 24 percent of all activities are wage activities, ranging from a minimum of 10.4 percent of respondents in Dien Bien to a maximum of 36.4 percent in Long An, implying that some households are increasingly reliant on wage-based employment outside the household.

Table 2.1: Average Income-Earning Activities and Share of wage Activities (percent)

Province	Share of Wage Activities / Total Activities	Average Number of Activity types / Respondent
Total	24.1	1.2
Ha Tay	27.3	1.1
Lao Cai	14.3	1.7
Phu Tho	25.5	1.1
Lai Chau	10.8	1.7
Dien Bien	10.4	1.3
Nghe An	25.6	1.2
Quang Nam	31.5	1.0
Khanh Hoa	28.9	1.4
Dak Lak	23.1	1.3
Dak Nong	20.8	1.0
Lam Dong	21.2	0.7
Long An	36.4	0.4

Table 2.1 also shows there are variations in the number of activities per working person:[6] figures above one mean the average respondent does more than one type of activity, while a number below one indicates there are some respondents who do not participate in income-earning activities (but might do household chores).

This simple measure suggests income-earning activities are most diversified in poor provinces like Lai Chau and Lao Cai, and least diversified in Long An, where income per capita is significantly higher. This is consistent with a large amount of research showing that economic development is associated with specialisation: performing fewer activities with higher returns compared to performing many activities with low or volatile rates of return.

Table 2.2 studies the reasons respondents say they are not working. Over 70 percent of those not working are at school, while 18 percent are too old or retired. A very small minority of 7.3 percent reports they do not work because they are disabled, do not want to work, or are unable to find a job ("other"). This is preliminary evidence that workers are generally able to connect with available jobs (even though these jobs may not offer high levels of wages or formal employment contracts).

Future research will investigate the role information plays in connecting workers with labour markets, including whether employers in rural areas have demand for labour that is not being met because they are not aware of where or when workers are available, or because workers do not know about job opportunities.

Table 2.2: Reasons for Not Working, Within-Province (percent)

	At school	Does housework	Too old, retired	Unable to Find Job	Other	N
Total 2012	71.7	2.8	18.0	0.8	6.5	100
Province						
Ha Tay	65.3	3.6	25.1	0.2	5.7	505
Lao Cai	59.3	0.0	35.2	0.0	5.6	54
Phu Tho	66.3	3.2	23.7	0.0	6.8	279
Lai Chau	75.4	2.6	17.5	1.8	2.6	114
Dien Bien	83.2	0.6	12.4	0.6	3.1	161
Nghe An	75.5	2.7	14.1	1.4	6.4	220
Quang Nam	74.2	3.5	11.1	2.0	9.1	395
Khanh Hoa	59.4	7.5	31.1	0.0	1.9	106
Dak Lak	82.4	1.3	11.3	0.6	4.4	159
Dak Nong	84.2	1.1	9.6	1.1	4.0	177
Lam Dong	76.0	1.3	16.0	1.3	5.3	75
Long An	67.1	2.6	17.2	0.6	12.5	343
Observations	1,856	73	466	21.0	167	2,588

6 The analysis excludes children, defined as respondents aged 14 and younger at the time of the survey.

2.2 Wage Employment and Personal Characteristics

Because wages are stable and predictable sources of income that are an increasingly important share of total household income, it is useful to investigate if there are systematic differences between households in which a member works for a wage and those in which all members do other activities.

Table 2.3 examines participation in different kinds of income-earning activity by household characteristics. Working for a wage is more likely for more educated respondents, and is positively related to speaking Vietnamese and belonging to the ethnic majority group. Members of the poorest households are less likely than others to work for a wage or run a household enterprise, and more likely to collect common property resources.

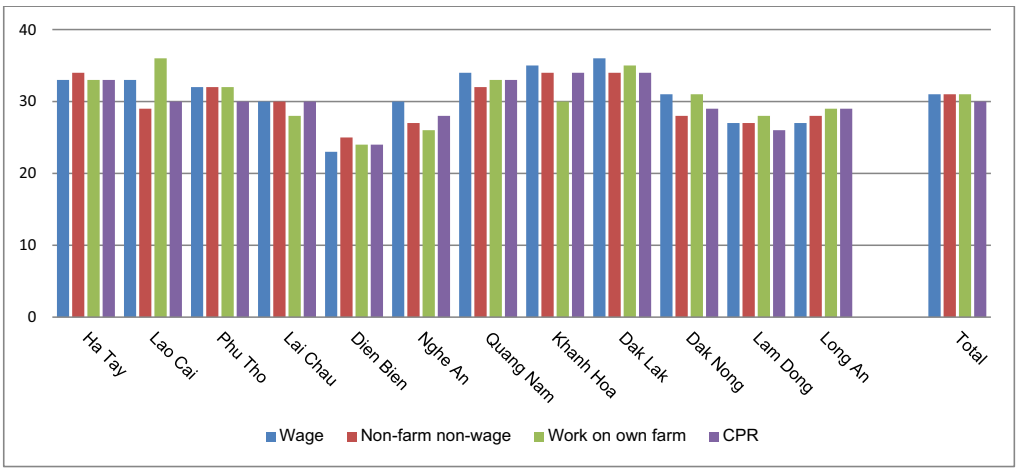
Table 2.3: Type of Income-Generating Activity by Personal Characteristic (percent)

	Wage	Work on own farm	Non-farm, non-wage	CPR
Total 2012	24.1	48.9	10.1	16.8
Gender of HH head				
Female	24.5	48.5	10.0	17.0
Male	23.8	49.3	10.3	16.7
Education				
Cannot Read and Write	21.0	49.8	7.8	21.5
Completed Lower Primary	23.6	48.5	9.9	18.0
Completed Lower Secondary	25.2	48.3	10.8	15.7
Completed Upper Secondary	25.4	49.8	11.1	13.7
Main language				
Vietnamese	27.4	49.2	12.0	11.4
Other	14.4	48.0	4.8	32.8
Poverty classification				
Non poor	25.2	49.5	11.4	13.8
Poor	19.9	46.4	5.4	28.3
Ethnicity				
Non-Kinh	15.4	48.1	5.2	31.3
Kinh	28.1	49.3	12.4	10.2
Food Expenditure Quintile				
Poorest	17.1	49.1	5.6	28.2
2nd poorest	22.8	49.0	8.4	19.8
Middle	26.0	51.1	9.4	13.5
2nd richest	27.8	48.8	14.8	8.5
Richest	31.4	46.7	16.2	5.8
Observations	2,899	5,876	1,219	2,023

Figure 2.2 summarises information about the age distribution of respondents engaging in different classes of income-earning activities (since same individual might do more than one activity, these figures are for average age within each activity in each of the survey provinces). A key result is that while the age of the overall surveyed working population varies across provinces, there is no systematic variation across types of activities within each province.

Age does not appear to be a relevant barrier to paid employment, and the relatively young average working age of around 30 suggests that Vietnam continues to benefit from the demographic dividend of a young, growing workforce. This relatively young workforce will require jobs, so job creation will remain a focal point of Government policy in the short- and medium-term.

Figure 2.2: Age Structure by Activity Type, within-Province Average (mean)



N = 10,086 activity type

2.3 Wage Levels and Formalisation

There are large differences in households' annual income across surveyed provinces. In an environment of rising average wages and changes in minimum wage legislation, we can get a picture of overall employment in labour markets by looking at differences in wage levels. This is not a perfect measure, since variation in annual wages is due to a combination of days spent working, workers' productivity, and the demand for/supply of labour, so earning higher or lower wages does not mean a worker is "better" or "worse".

Table 2.4 shows the average, median, and standard deviation of total wages earned over a year broken down by personal and household characteristics. In contrast to rural areas of many lower middleincome countries, this survey does not find systematic differences in the total wage income earned by men and women, and only small differences in total wages earned across age quintiles, consistent with results in Pham and Reilly (2007) and Liu (2004) (total wages are calculated as wage income per year, measured in real terms relative to Ha Tay province, 2012).

There is a large premium to belonging to a household headed by a member of the Kinh majority and speaking Vietnamese. Since these characteristics are also associated with being employed, ethnic minorities could face a double hurdle: they are less likely to connect with rural labour markets, and those ethnic minority members that have jobs appear to earn significantly less income from wage labour.

Table 2.4: Individuals' Earned Wage Income by Personal and Household Characteristics (millions of real VND)

	Mean	Median	St. Dev.
Total 2012	25.3	21.0	20.4
Gender of HH head			
Male	24.8	20.8	19.3
Female	25.6	21.0	21.4
Education			
Cannot read or write	26.1	21.6	24.2
Completed lower primary	25.8	21.7	19.7
Completed Lower Secondary	24.9	20.7	20.7
Completed Upper Secondary	24.6	21.0	18.5
Education (excluding Long An)			
Cannot read or write	17.3	10.2	16.4
Completed lower primary	24.2	18.6	19.7
Completed Lower Secondary	24.2	20.0	20.5
Completed Upper Secondary	23.8	20.6	18.2
Food expenditure quintile			
Poorest	16.7	12.7	14.0
2nd poorest	19.9	17.4	14.6
Middle	26.6	22.4	20.3
2nd richest	27.9	24.2	18.2
Richest	36.8	36.0	26.6
Age quintile			
Youngest	25.3	22.9	19.7
2nd youngest	22.8	18.4	18.5
Middle	25.6	20.4	21.7
2nd Oldest	25.5	22.3	21.2
Oldest	26.7	22.7	20.5
Main language			
Vietnamese	27.4	24.0	20.4
Other	12.9	7.5	15.5
Classified as poor by MoLISA			
Non-poor	27.6	24.1	20.8
Poor	13.6	10.0	12.9
Ethnicity			
Kinh	27.9	24.6	20.5

Non-Kinh	14.1	8.3	15.5
Army service			
Yes	25.5	21.5	19.2
No	25.7	21.2	21.3
Employer			
Private only	22.4	18.6	18.0
Public only	36.7	35.4	24.7
Public and Private	34.8	26.1	29.1
N =2,899 individuals			

A seemingly surprising result is that higher levels of education are associated with lower annual real wage income. However, closer examination of the data shows that this effect is driven by Long An province. When Long An is excluded from the analysis, median annual earned wages are consistently higher for better educated respondents, in line with intuition and most economic evidence, although the correlation remains quite weak. One possible explanation is that the effect of education on wage income is suppressed by age (older individuals earn higher wages because they have more experience, despite being less educated than younger workers). Further research will establish if the result is also due to the industries that hire labour in rural areas, or a mismatch between skills developed through formal schooling and the skills demanded in rural labour markets.

A history of service in the Vietnamese Army does not appear to affect wage income, but the average wage levels for public sector workers is much higher than those working only for private sector businesses. This finding might be relevant for future research and policy: if hiring by the public sector systematically pays more than wages offered in the private sector, this may create a crowding-out effect that deprives the growing private sector of better-educated or more-skilled workers.

As expected, jobs and wage levels are not evenly distributed across surveyed provinces. Table 2.5 shows that average annual real wage income is highest in Ha Tay and Long An (calculated as average annual earnings reported by all respondents with a job).

Table 2.5: Wage Income and Share of Wage Jobs

Wage income (millions of real VND per year)			
	Mean	**St. Dev.**	**Median**
Total	25.0	20.2	20.7
Province			
Ha Tay	30.8	20.3	29.7
Lao Cai	16.4	16.2	9,.6
PhuTho	23.8	16.8	21.2
Lai Chau	25.4	24.8	16.1
Dien Bien	22.6	26.4	9.5
Nghe An	20.6	17.2	18.1

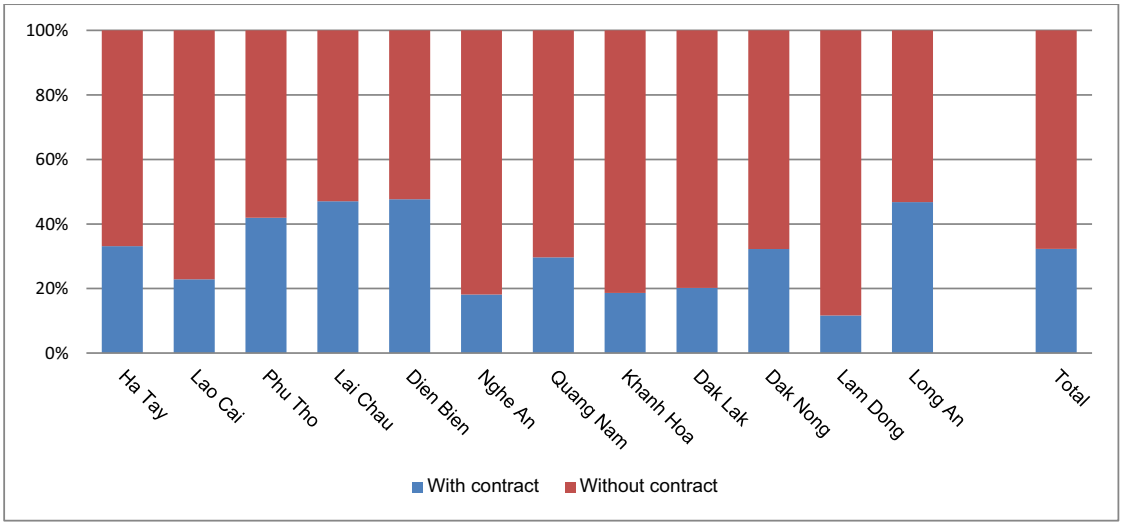
Quang Nam	22.6	16.0	19.9
Khanh Hoa	21.0	13.6	18.6
Dak Lak	16.7	18.6	8.4
Dak Nong	21.0	23.4	11.7
Lam Dong	11.2	9.8	8.3
Long An	35.2	23.3	34.3

Contract-based employment is an important indicator of formalization: it means workers earn regular, predictable income and increases the chance they enjoy benefits like pensions, disability, maternity, or unemployment.

Rand and Torm (2011) study both formal and informal small and medium enterprises (SMEs) in Vietnam and find that formally registered firms are less likely to use casual labour, so the low shares of jobs with a formal contract in this survey partially reflect low levels of company registration. Nguyen et al. (2013) find the gap in average wage rates between informal and formal workers is mostly determined by workers' characteristics, which are a more important determinant of wage levels and wages earned than the formalization of hiring firms.

Figure 2.3 shows the share of contracted jobs as a share of overall employment in each province, and demonstrates that formalization remains low both within the surveyed provinces and, on average, across Vietnam. The prevalence of informal employment suggests changing legislation will not be enough to expand coverage of employment-based social insurance in rural areas. Overall, evidence from this VARHS survey round suggests that rural areas have not yet fully benefited from the increases in overall labour demand due to Vietnam's relatively high economic growth rate.

Figure 2.3: Share of Employment with Contract



N = 2,865

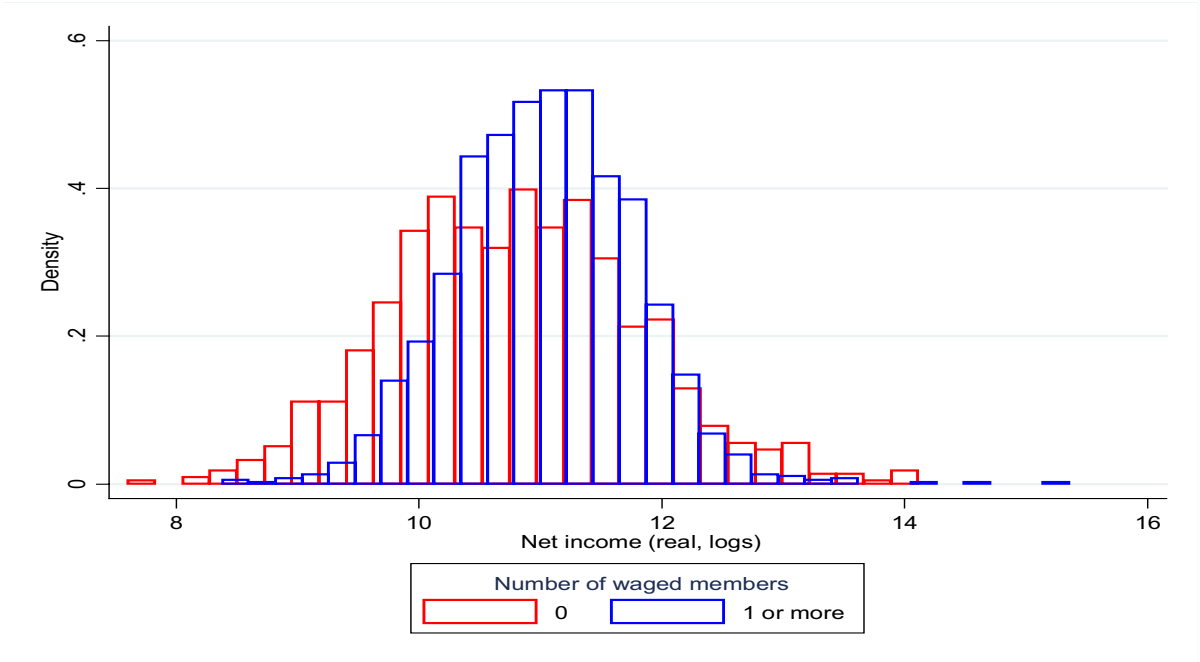
2.4 Wage Labour and Household Income

Analysing activities that generate income and aggregating this to the household level allows researchers to study how earning wages affects overall household wealth. While not identical to household welfare (see McKay and Tarp, 2010, for a discussion of welfare dynamics in rural Vietnam using VARHS data), income and wealth are strongly correlated with spending on services like education and health care, and with increases the quality and quantity of goods available to household members.

Expanding access to wage-based employment is an important policy objective, and understanding which types of households can benefit from wages is an important research question.

Figure 2.4 shows that the average household income of households with at least one member working for a wage is higher than households with no wage-earning members.[7] The median and average real net incomes of households with at least one wage earner are 62,671 thousand VND and 84,831 thousand VND, while the same statistics for households without anyone working for wages are 48,618 thousand VND and 84,390 thousand VND. Working for a wage does not seem to dramatically increase total household income.

Figure 2.4: Net Income, Households With and Without Wage-Earning Members



N = 2,699

7 Note that this figure shows the natural log of real household income, preserving the ordering of incomes but not their absolute amounts.

Many households report at least one household member working for a wage. Table 2.6 provides further background.

Table 2.6: Households With and Without Members Working for Wage (percent)

		Number of HH Members Working for a Wage	
Gender of HH head		**None**	**One or More**
	Female	37.7	62.3
	Male	35.1	64.9
Education	Cannot read and	48.7	51.3
	Completed lower	37.5	62.5
	Completed Lower	34.2	65.8
	Completed Upper	29.9	70.1
Main language	Vietnamese	34.7	65.3
	Other	40.1	59.9
Poverty classification	Non poor	35.8	64.2
	Poor	34.7	65.3
Ethnicity	Non-Kinh	37.0	63.0
	Kinh	35.3	64.7
Food expenditure quintile	Poorest	34.7	65.3
	2nd poorest	33.6	66.4
	Middle	37.8	62.2
	2nd richest	35.6	64.4
	Richest	37.1	62.9
N =		956	1,717

The table shows that wage-earning households are typically those in which the head of household is more likely to be male, have at least a lower secondary education, and be from the ethnic majority.

Similarly, more than 80 percent of the wage-earning households are classified as non-poor (based on the MoLISA poverty line). Connecting households with labour markets might help to combat poverty and vulnerability, but it is not clear whether non-poor households are more likely to have members who find jobs, or whether finding a job makes a household non-poor.

Table 2.7 expands this analysis by investigating whether the characteristics of the household/household-head are related to the total amount of income from wages (all households are included regardless of whether they earn income from wages). Three patterns emerge.

Firstly, average and median income from wages increase quickly in the household head's level of education. This contrasts with Table 2.4, which showed only a weak correlation between the education level of individual workers and their wage income. The likely reason is that households with more educated heads have more members who work for a wage (see Table

2.6), and so earn more total income from wages than other households, even if the effect of education on wage income is rather weak among individual wage earners.[8] Secondly, ethnicity plays a major role in wage levels.

Finally, households in higher food expenditure quintiles earn more from wages: the poorest households as measured by food spending earn around 12,303 VND in wages, while those in the richest quintile earn 36,392 (all figures are for the average household and are measured in '000 real VND). Food expenditure is an important welfare indicator, and is strongly and positively associated with wage income.

Table 2.7: Total Household Income from Wages by Household/Household Head Characteristic (millionsof real VND)

	Mean	Median	St. Dev.
Total 2012	25.0	20.7	20.2
Gender of HH head			
Male	25.0	20.8	19.9
Female	25.0	20.7	20.6
Education			
Cannot read and write	13.2	8.8	13.1
Completed lower sec.	23.3	18.0	22.1
Completed lower high school	27.8	24.1	19.3
Completed upper high school	34.8	30.0	25.9
Main language			
Vietnamese	27.2	24.0	20.2
Other	12.9	7.5	15.4
Poverty classification			
Non poor	27.4	24.0	20.6
Poor	13.5	9.9	12.8
Ethnicity			
Non-Kinh	14.0	8.3	15.5
Kinh	27.7	24.2	20.3
Food expenditure quintile			
Poorest	12.3	7.5	12.4
2nd poorest	19.5	14.3	17.1
Middle	21.3	18.1	16.1
2nd richest	27.3	24.5	18.8
Richest	36.4	33.3	23.9

N= 2,740

8 It is also possible that well-educated heads have better connections than others can help other household members to get more highly-paid jobs.

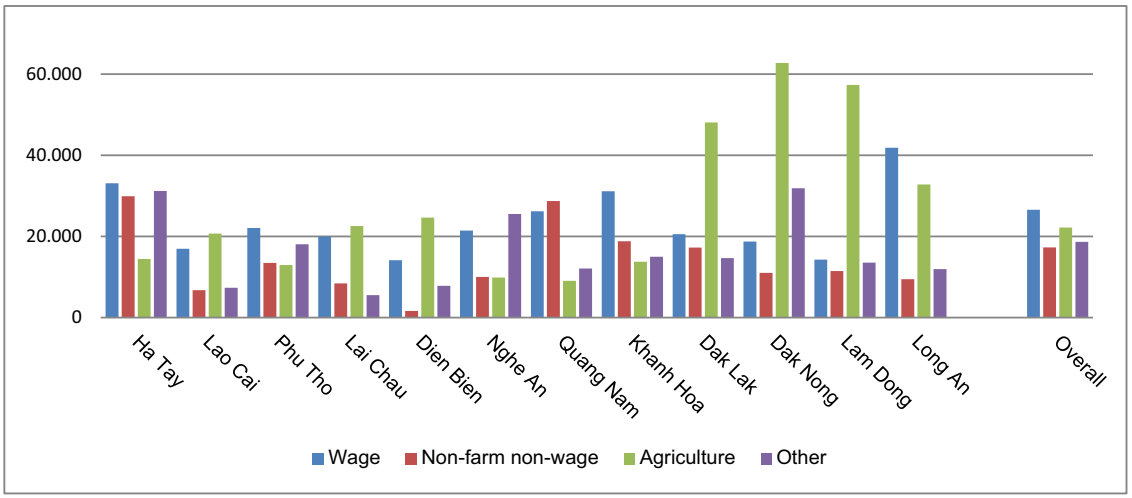
Households in which the household head is non-Kinh earn, on average, less than half the wage income of Kinh households, while the median for these ethnic minority households is less than a third of that for ethnic majority households. Table 2.8 investigates whether this effect is mainly driven by specific provinces. In fact, there is a large and consistent difference in wages earned between ethnic groups across all provinces of the sample. This does not automatically imply minority households face systematic discrimination in labour markets. At the least, though, it shows minority groups do not have access to the same job opportunities, and this issue should be investigated in further research.

Table 2.8: Average Total Household Wage Income, by Ethnicity (millions of real VND per year)

Province	Ethnicity	
	Non-Kinh	**Kinh**
Ha Tay	18.6	33.2
Lao Cai	10.9	36.5
Phu Tho	20.3	22.6
Lai Chau	13.4	59.2
Dien Bien	11.8	45.6
Nghe An	20.1	22.7
Quang Nam	25.3	26.2
Khanh Hoa	23.5	31.3
Dak Lak	16.2	22.5
Dak Nong	15.6	20.0
Lam Dong	12.8	14.9
Long An	41.9	42.1
N=	673	1,097

In some areas, earned wages comprise a substantial share of overall household earnings, but this statistic varies widely across Vietnam, and Figure 2.5 shows substantial differences in the average level of income from employment across provinces. As expected, the rural households near the urban areas of Ha Noi and HCMC in the Ha Tay and Long An provinces earn the most from wages. In contrast, the average household in Dak Lak and Dak Nong earns significantly more from agriculture, in part due to the high price of commodities, particularly coffee, produced in these areas.

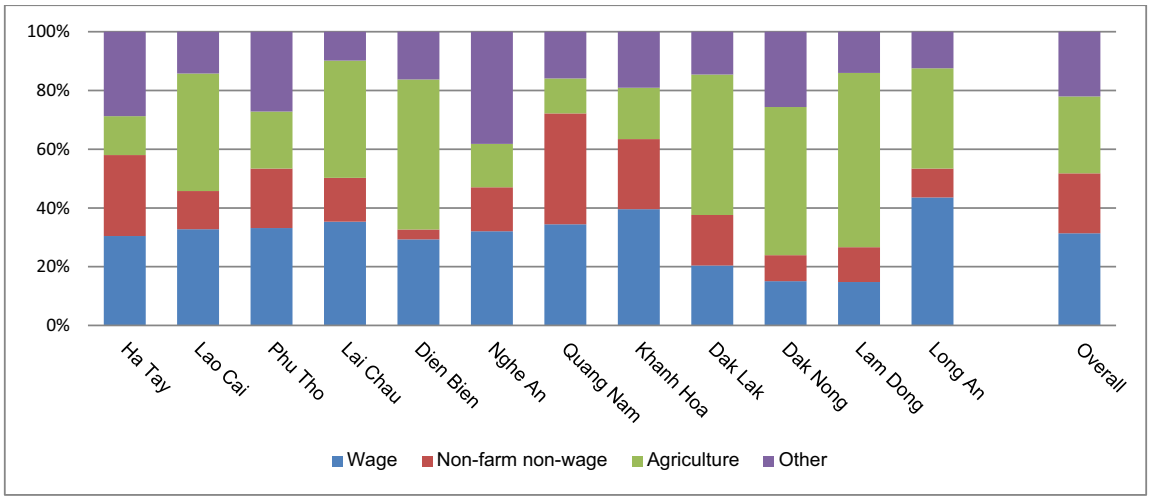
Figure 2.5: Average Household Income by Source ('000 real VND)



N = 2,700

While the level of wages earned by households varies significantly across provinces, Figure 2.6 shows that the relative share of wages in overall household income is more uniform: income from non-farm, non-household enterprise employment contributed around 30 to 40 percent of the average household's net income in most provinces. Dak Lak, Dak Nong, and Lam Dong are notable exceptions: wages in these provinces are a much smaller share of the average households' overall income, but this is mainly due to the value of agricultural earnings in the Central Highlands.

Figure 2.6: Average Household Income by Source, within-Province Shares (percent)



N = 2,700

Table 2.9 extends the analysis of Figure 2.6 by studying wages relative importance in household income. The ratio of wage to net income ranges from 15 percent in Lam Dong to over 40 percent in Long An. As in previous survey rounds, wages contribute more to net income in peri-urban provinces where households are located near the large urban labour markets of HCMC and Hanoi.

Table 2.9: Household Wage and Net Income, within-Province Mean, Median, and St. Dev. (millions of real VND)

	Wage Income			Net Income			Wage Share of Net Income, Percent		
	Mean	Median	St.Dev.	Mean	Median	St. Dev.	Mean	Median	St. Dev.
Total 2012	26.6	13.0	35.1	84.7	58.2	137.2	31.4	22.4	25.6
Province									
Ha Tay	33.1	24.0	38.2	108.6	74.6	156.2	30.5	32.2	24.5
Lao Cai	16.9	7.8	24.6	51.7	41.2	44.8	32.8	19.1	55.0
Phu Tho	22.1	10.1	29.7	66.6	48.4	63.6	33.2	20.8	46.7
Lai Chau	19.9	5.9	32.5	56.5	35.6	60.7	35.4	16.6	53.5
Dien Bien	14.1	0.0	32.0	48.2	33.3	41.0	29.3	0.0	78.0
Nghe An	21.4	15.1	24.2	66.9	46.7	65.4	32.1	32.5	37.1
Quang Nam	26.2	17.4	31.4	76.0	42.7	267.4	34.5	40.7	11.7
Khanh Hoa	31.1	26.7	28.0	78.6	59.3	65.9	39.6	45.0	42.5
Dak Lak	20.5	6.0	31.2	100.5	73.2	116.4	20.4	8.2	26.8
Dak Nong	18.7	4.4	29.1	124.3	81.4	151.1	15.1	5.4	19.3
Lam Dong	14.3	10.0	15.8	96.6	71.4	79.7	14.8	14.1	19.8
Long An	41.8	29.7	49.2	96.1	78.6	77.4	43.6	37.8	63.6

N= 2,669

The average share of wage income in net income disguises the fact that in some areas the median household gets little or no wealth from wages. Dien Bien province is a dramatic example, where the median household earns no income from wages, but a minority of households earns a substantial share of total income from waged employment.

2.5 Summary

Even in rural areas of Vietnam, being better educated makes it more likely you will have a wage-paying job. Households with well-educated heads earn much more income from wages than others. In particular, it seems that public sector jobs in the Government provide the best wages and most secure employment. While Vietnam's economic transformation continues, a robust, private-sector labour market is still emerging and is highly concentrated. Most jobs continue to be short-term or do not offer permanent contracts, and income from wages remains a relatively small share of overall household income in most rural areas when compared to income from other sources like household enterprises or agriculture.

Comparing mean and median values for the share of income from wages in total household income shows that while in several provinces some households benefit from engaging with labour markets, many continue to earn significantly more income from other sources (the high levels of income from agriculture in Dak Lak and Dak Nong are a good example). Households that receive some income from formal and informal employment belong to higher food expenditure quintiles and earn higher median incomes, suggesting there may be some benefits to wage-based employment compared to other activities.

As policies to expand and deepen Vietnam's rural labour markets are developed, it will be essential to make sure vulnerable populations, especially ethnic minority groups, are able to access "good" wage employment that can supplement volatile earnings from activities like agriculture and household enterprises which continue to play a central role in the economic life of rural Vietnam.

Future economic development will be characterised by more people working for wages outside the home and a greater importance of wages to overall household wealth and welfare. Policymakers can play an important role in preparing for this shift in the structure of labour by supporting job creation and labour markets, and establishing institutions to protect labour rights.

References

Liu, A. Y. (2004). Gender wage gap in Vietnam: 1993 to 1998. Journal of Comparative Economics, 32(3), 586-596.

McKay, A. and Tarp, F. (2010) Welfare Dynamics in Rural Vietnam, 2006 to 2010. Mimeograph. Central Institute of Economic Management (CIEM), Hanoi.

Nguyen, Huu, Nordman, Christophe J. and Roubaud, François (2013). Who Suffers the Penalty? A Panel Data Analysis of Earnings Gaps in Vietnam. IZA Discussion Paper No. 7149.

Pham, T-H., Reilly, B. (2013). The gender pay gap in Vietnam, 1993–2002: A Quantile Regression Approach, Journal of Asian Economics, Volume 18, Issue 5, Pages 775-808.

Rand, J., and Torm, N. (2011). The Benefits of Formalization: Evidence from Vietnamese Manufacturing SMEs. World Development.

CHAPTER 3: NON-FARM HOUSEHOLD ENTERPRISES

3.1 Introduction

While labour markets are beginning to draw agricultural labour into wage-based employment in rural areas of Vietnam, many households continue to operate small-scale household enterprises (HHEs) to supplement their income.

Whether HHEs are "good" for participating households depends on whether the resources used to invest in and operate businesses, such as human and financial capital, could be used more effectively in other activities. Much like wage employment, household enterprises deserve policymakers' attention because they are a significant and persistent feature of rural economic activity, absorbing large investments of working time and making significant contributions to household income.

In this chapter we explore the prevalence and nature of household enterprises in rural Vietnam. We focus on the characteristics of households who own and operate enterprises and the characteristics of the enterprises themselves. We conclude with an analysis of the constraints to enterprise development as reported by enterprise owners.

3.2 Prevalence of HHEs

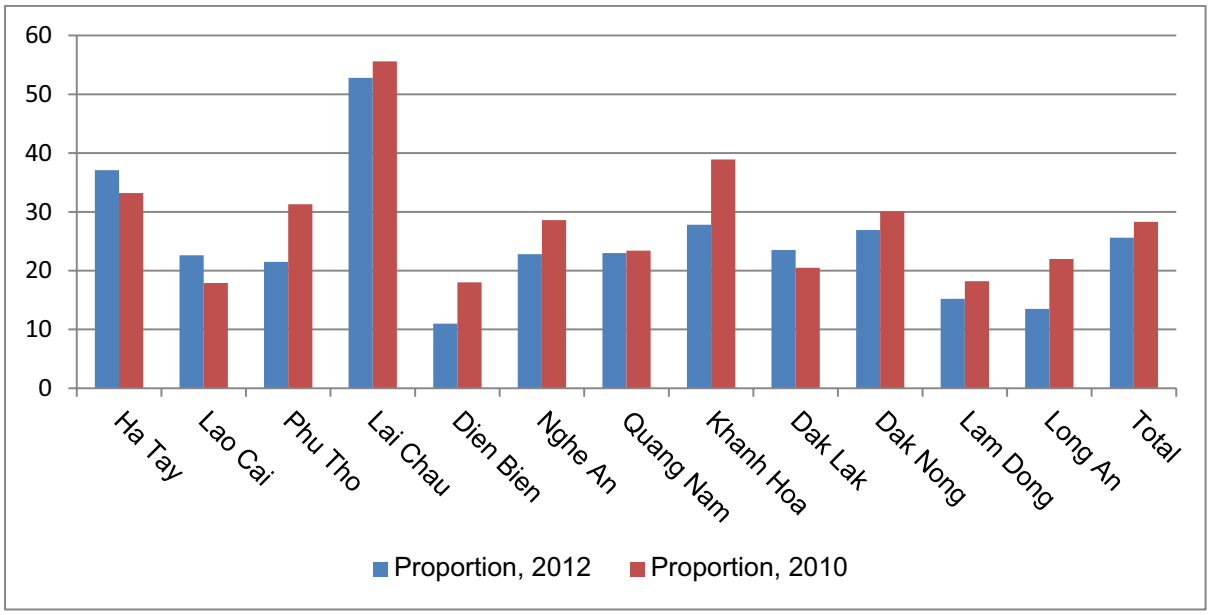
As Figure 3.1 shows, on average 25.6 percent of households operated an enterprise in 2012, less than in 2010 (using a balanced panel of households surveyed in both 2012 and 2010 for comparison purposes).[9] Among the 12 provinces, more than half observed some decrease in the proportion of household enterprises, with the exceptions of Ha Tay, Lao Cai, and Dak Lak. The largest change was observed in Khanh Hoa with a decrease of over 11 percent.

Further research will investigate whether the drop in the prevalence of household enterprises is a result of households terminating small businesses with low value-added to take up wage employment or to focus on agricultural activities, or if the decrease is caused by increasing difficulties faced by small business owners.

The former interpretation receives some support in the data due to the fact that the decrease in business ownership is observed disproportionately among richer households (see Figure 3.2).

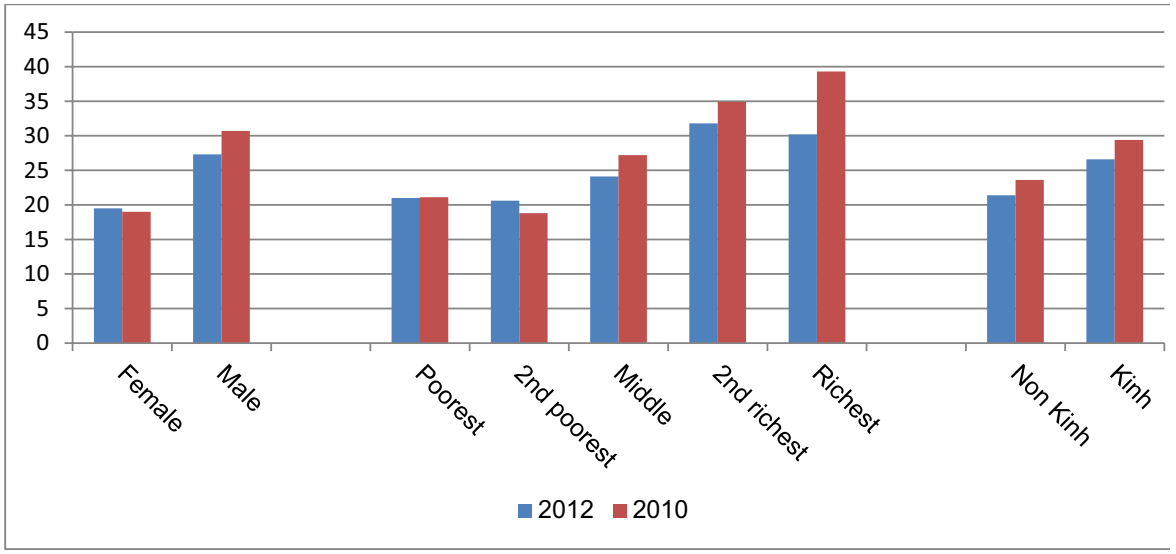
9 The large proportion of households in Lai Chau that operate HHEs is somewhat misleading. As revealed later in Table 3.1 they tend to be informal and located in the family home. Moreover, Table 3.3 shows that they account for a small proportion of total household income with agricultural income still remaining the most important source of income for households in this province.

Figure 3.1: Share of Households with a Household Enterprise (percent)



N 2012 = 2,120 and N 2010 = 2,120

Figure 3.2: Household Enterprises by Characteristic (percent with enterprise)



N 2012 = 2,120 and N 2010 = 2,120

It remains the case, however, that richer households are more likely than poor ones to own a non-farm business, though this correlation may not imply causation: these households may be wealthier because of successful HHEs, or wealthier households may be better placed to invest in and operate an HHE.

Figure 3.2 also shows that, as in the case of wage employment, studied in Chapter 2, there appears to be a systematic difference between Kinh and non-Kinh households. Households headed by ethnic minorities are less likely to operate a HHE. This difference between groups is consistent across the 2010 and 2012 survey rounds.

The percentage of female-headed households that operate a household enterprise is 19.5 percent in 2012, almost identical to the proportion in 2010. In contrast, 27.3 percent of male-headed households operate a household enterprise in 2012 compared with 30.7 percent in 2010.

A further breakdown of HHEs at the individual level shows that half of HHE activities are operated by a woman, a slight increase from 2010 when 46.6 percent of enterprises were operated by a woman (result is not shown). This suggests that the gender of the household head is not a constraint to entrepreneurship in rural areas. It is interesting to note that only 10.5 percent of HHEs are operated by a poor household (result is not shown). This suggests that micro-enterprise development is more associated with non-poor households.

3.3 Characteristics of HHEs

Table 3.1 investigates key characteristics of household enterprises, including location, formalisation, and number of workers, for the full sample of households included 2012. The share of HHEs with a license (i.e. those classified as "formal") is 21.4 percent in 2012.

Comparing the balanced panel of households with enterprises in 2010 and 2012 we find that there is a decrease in the proportion of firms with a business licence compared with 2010, but this decline is not statistically significant. As with most indicators, however, there is significant heterogeneity across the sample: levels of formalisation vary widely across provinces, food expenditure quintiles of the household operating the business, and the ethnicity of the household head.

Around 58 percent of HHEs are operated in the family home, and the average HHE is a "micro" enterprise, employing less than one worker, on average, in addition to household members. While operating a micro-enterprise may help households diversify their income sources and hedge against risks (for example, volatile prices for agricultural output), they (by definition) do not hire significant numbers of additional workers.

Table 3.1: Characteristics of Household Enterprises[10]

	Share of HHs with HHE, percent	Number HHEs observed	HHE has license, percent	HHE located in family home, percent	Number of workers in HHE, incl. HH members, mean	Number of hired workers in HHE, mean
Total 2012	26.4	858	21.4	58.0	2.1	0.5
Province						
Ha Tay	37.8	265	16.6	54.2	2.7	0.8
Lao Cai	21.5	26	19.2	46.2	1.9	0.4
Phu Tho	23.1	103	34.0	60.4	1.9	0.8
Lai Chau	49.6	76	10.5	92.1	2.2	0.4
Dien Bien	10.7	15	6.7	66.7	1.9	0.0
Nghe An	25.9	71	12.7	35.7	1.7	0.3
Quang Nam	24.3	97	27.8	61.7	1.9	0.4
Khanh Hoa	26.4	33	39.4	31.3	1.7	0.4
Dak Lak	26.1	54	24.1	56.6	2.2	0.6
Dak Nong	23.4	41	12.2	65.9	1.7	0.2
Lam Dong	15.0	14	42.9	57.1	1.7	0.2
Long An	15.3	63	28.6	61.3	1.6	0.3
Gender						
Female	21.2	140	25.0	54.3	1.6	0.2
Male	27.8	718	20.8	58.8	2.3	0.6
Food expenditure quintile						
Poorest	19.2	116	6.9	62.6	2.2	0.1
2nd poorest	23.2	146	11.6	60.3	1.7	0.1
Middle	24.7	149	23.5	52.3	1.6	0.2
2nd richest	33.0	216	23.6	59.2	2.2	0.7
Richest	32.0	220	31.8	56.7	2.7	1.2
Ethnicity of HH head						
Non Kinh	20.2	127	7.9	78.0	1.9	0.1
Kinh	28.0	731	23.8	54.5	2.2	0.6
Total 2012 panel[a]		475	22.1	61.7	2.1	0.5
Total 2010 panel[a]		475	25.7	60.6	2.3	0.6

N = 2,740

[a] Based on a balanced panel of 364 households with 475 household enterprises. Differences between 2010 and 2012 are not statistically significant at the 10 percent level for any enterprise characteristic.

10 Differences between the results presented in Table 3.1 and in Figure 3.1 and 3.2 are due to the fact that the former are based on the "full sample" of 2012 households, while the latter use the "panel sample", a balanced panel of households based on those included in the 2010 report.

Table 3.2 presents the share of household income from various sources and reveals considerable variability in the importance of income from HHEs in total income across provinces. For example, in Dien Bien, the majority of income is derived from agricultural activities with only 2.2 percent coming from HHEs. In contrast, in Ha Tay, wage employment is most important at 38.4 percent of total income followed by income from HHEs at 22.3 percent. This suggests that for some provinces, at least, HHEs may help households diversify their income sources and protect against risks or unexpected shortfalls in income. Given their small scale, however, they are unlikely to generate significant wage-based employment in rural areas. Future research is required to explore this issue in greater detail.

Table 3.2: Diversification of Income Sources by Province (percent)

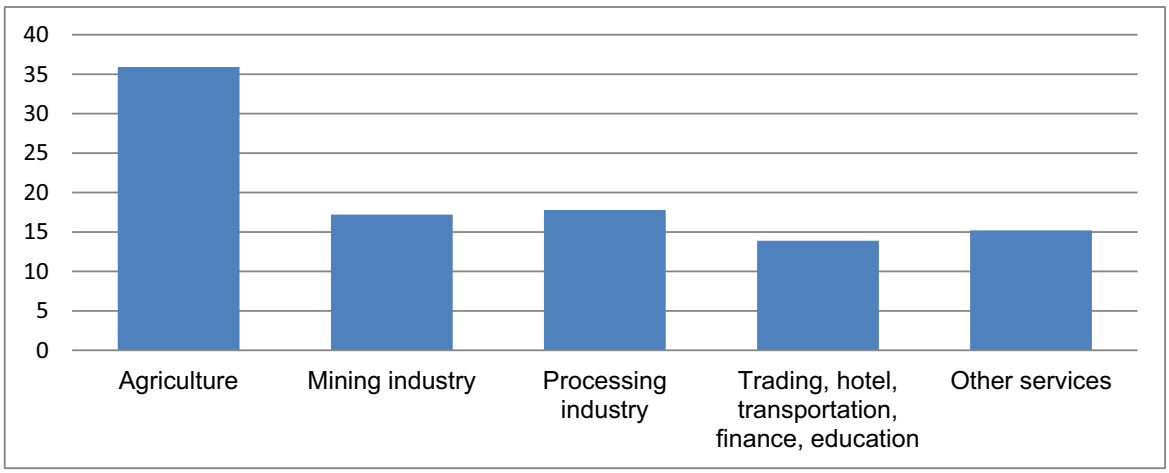
Share of income from:	HHE	Agriculture	Wage	Other
Total 2012 (N = 2,740)	12.5	30.6	35.2	21.8
Province				
Ha Tay	22.3	16.5	38.4	22.8
Lao Cai	7.1	51.8	28.8	12.3
Phu Tho	12.3	22.1	34.7	31.0
Lai Chau	7.2	55.8	27.7	9.3
Dien Bien	2.2	63.6	17.0	17.3
Nghe An	9.5	17.6	37.3	35.6
Quang Nam	13.5	20.2	41.6	24.8
Khanh Hoa	16.3	18.4	45.1	20.2
Dak Lak	9.9	53.5	23.3	13.3
Dak Nong	7.5	45.9	24.7	21.8
Lam Dong	7.5	56.9	22.6	13.0
Long An	7.7	34.1	44.4	13.7
Total 2012 panel[a]	11.4	32.3***	32.6***	23.7***
Total 2010 panel[a]	10.9	28.2***	25.2***	35.7***

*[a] N 2012 and 2010 panel = 2,120 (balanced panel); ***Difference between 2010 and 2012 significant at 1 percent level.*

In 2012 HHEs accounted for 12.5 percent of total net household income in comparison with income from agriculture (30.6 percent, including income from CPR), from wages (35.2 percent) and from other income sources (21.8 percent), namely rental income, sale of assets, transfers, etc. Between 2010 and 2012 the share of income from HHEs remained unchanged with statistically significant increases in the share accounted for by agricultural production, suggesting that HHEs are not, on average, the most important source of income for rural households.

Figure 3.3 presents results on the sectoral distribution of household enterprises. It shows that over 35 percent of micro-enterprises are related to the agricultural sector. It is also of note that 15 percent of enterprises are classified as providing "other services" and over 15 percent were involved in small-scale processing and manufacturing.

Figure 3.3: Sectoral Distribution of HH Enterprises 2012 (percent)



N = 858

3.4 Investment and Performance of HHEs

Turning to the investment and performance data for the micro-enterprises in Table 3.3a, the 2012 survey shows that the average start-up cost for household enterprises is 7.5 million VND (approximately 360 USD). This average value disguises very large variation across food expenditure quintiles, our proxy for relative wealth: among poor households, the initial investment is only 650,000 VND, compared to around 20 million VND among the richest; and self-reported median revenues (Table 3.3b) range between 10.5 million VND for the lowest quintile to 130 million VND for the richest.

As with wage employment, there are significant differences between ethnicities. Kinh households invest more than 10 times as much as ethnic minority households, which are more likely to self-finance their investment. This may indicate that ethnic minorities experience difficulties accessing loans and other forms of credit, preventing them from expanding their business. More in-depth research is required to establish the extent to which this is the case. More generally, there is some evidence that richer households are the most likely to secure outside financing, as might be expected.

Table 3.3a: HHE Performance: Investment Capital, and Sources of Financing

	Initial investment ('000 VND), median	All self-financed, percent	Self-financed and borrowed, percent	All borrowed, percent
Total 2012	7,500	67.4	24.0	5.0
Province				
Ha Tay	10,000	63.8	24.9	8.7
Lao Cai	1,800	76.9	15.4	0.0
Phu Tho	20,000	58.3	34.9	6.8
Lai Chau	500	82.9	15.8	0.0
Dien Bien	2,000	73.3	20.0	6.7
Nghe An	7,000	69.0	22.5	5.6
Quang Nam	5,000	60.8	25.8	3.1
Khanh Hoa	5,000	78.8	18.2	3.0
Dak Lak	10,000	70.4	29.6	0.0
Dak Nong	10,000	63.4	29.3	4.9
Lam Dong	10,000	71.4	21.4	0.0
Long An	10,000	74.6	11.1	3.2
Gender of HH head				
Female	5,000	62.9	25.7	7.9
Male	9,000	68.3	23.7	4.5
Food expenditure quintile				
Poorest	650	79.3	9.5	3.4
2nd poorest	5,000	63.7	30.8	3.4
Middle	6,000	70.5	21.5	5.4
2nd richest	10,000	67.1	25.5	4.2
Richest	20,000	61.8	27.3	7.3
Ethnicity of HH head				
Non Kinh	800	77.2	17.3	3.1
Kinh	10,000	65.7	25.2	5.3
Total 2012 panel[a]	58,971	67.8	24.0	4.0
Total 2010 panel[a]	48,969	66.9	24.8	4.6

[a] Based on a balanced panel of 364 households with 475 household enterprises. Differences between 2010 and 2012 are not statistically significant at the 10 percent level for any enterprise characteristic.

Table 3.3b: HHE Performance: Revenue, Costs and Net Income (‘000 VND, median)

	Total revenue from HH enterprise	Total costs for HH enterprise activities	Net income from HH enterprise
Total 2012	**64,080**	**31,000**	**27,000**
Province			
Ha Tay	120,000	67,000	38,000
Lao Cai	32,000	15,200	17,728
PhuTho	60,000	28,000	30,000
Lai Chau	4,650	2,765	1,305
Dien Bien	20,000	10,000	10,000
Nghe An	30,000	8,000	18,500
Quang Nam	80,000	43,000	24,000
Khanh Hoa	95,000	48,900	46,500
Dak Lak	60,000	33,570	23,260
Dak Nong	87,200	42,000	31,700
Lam Dong	65,000	31,250	54,650
Long An	84,000	13,000	40,500
Gender of HH head			
Female	61,680	33,550	26,200
Male	64,900	31,000	27,250
Food expenditure quintile			
Poorest	10,600	3,580	5,600
2nd poorest	40,850	20,550	17,250
Middle	60,000	24,300	24,500
2nd richest	99,000	44,000	36,000
Richest	130,000	68,700	46,510
Ethnicity of HH head			
Non Kinh	6,000	2,950	3,000
Kinh	84,000	43,000	32,000
Total 2012 panel[a]	**268,371**	**216,260**	**52,110**
Total 2010 panel[a]	**230,648**	**185,422**	**45,226**

N= 858

[a] Based on a balanced panel of 364 households with 475 household enterprises. Differences between 2010 and 2012 are not statistically significant at the 10 percent level for any enterprise characteristic.

Just as wages earned in non-farm, non-household employment (see Chapter 2) is higher amongst better educated respondents, and increased educational attainment is associated with being involved in better-performing HHEs.

As illustrated in Table 3.4, for households in which the head of household is illiterate, HHEs earn a median total income (revenues less costs) of around 3.1 million VND a year. In cases where the head of household has completed his/her upper secondary education, HHEs earn 40.7 million VND a year on average.

While Table 3.3a suggests some groups (particularly households with a non-Kinh or ethnic minority head) have difficulty accessing credit and are more likely to self-finance, Table 3.4 shows the potential negative consequences of credit rationing: the median total net income amongst those HHE entrepreneurs able to access loans is roughly twice that of those who cannot. It should be noted, however, that causality could run in the other direction in that low-income households (or enterprises) find it more difficult to access loans.

Table 3.4: Education of Household Head, Investment, and Performance ('000 VND, median)

	Initial investment	Revenue	Costs	Total net Income
Total 2012	7,500	64,080	31,000	27,000
Highest general education HH head				
Cannot Read or Write	500	6,150	3,380	3,100
Completed Lower Primary	4,000	48,000	24,000	22,200
Completed Lower Secondary	9,000	63,000	32,100	25,880
Completed Upper Secondary	15,000	120,000	60,000	40,700
Highest professional education				
No Diploma	5,000	62,000	29,800	26,325
Short Term Vocational	10,000	60,000	29,000	26,300
Long Term Vocational	25,000	140,000	66,500	65,000
Professional high school	15,000	45,000	26,000	24,400
College/University	35,000	76,000	43,000	31,900
Borrowing Status				
No loan	5,000	50,000	22,840	24,000
Have loan	20,000	145,000	86,100	50,800

N= 858

Table 3.5: Days per Year Working on Non-Farm, Non-Wage Activities

	Number of days involved in HH enterprise, days, 2012	Share of HHE labour supply in total labour supply, 2012, percent	Number of days involved in HH enterprise, days, 2010	Share of HHE labour supply in total labour supply, 2010, percent
Total 2012	74	6.9	70	6.4
Province				
Ha Tay	133	12.4	100	9.4
Lao Cai	47	4.2	36	2.7
PhuTho	62	6.7	93	8.6
Lai Chau	28	2.6	30	2.7
Dien Bien	11	0.7	25	1.8
Nghe An	64	5.8	61	5.3

Quang Nam	72	7.1	62	5.8
Khanh Hoa	70	6.6	117	9.7
Dak Lak	46	4.1	57	5.0
Dak Nong	69	5.7	59	4.8
Lam Dong	40	3.0	38	2.4
Long An	67	6.2	65	6.6
HH head sex				
Female	61	6.7	50	5.5
Male	77	7.0	76	6.7
Food expenditure quintile				
Poorest	26	2.0	31	2.8
2nd poorest	56	4.7	43	3.4
Middle	65	6.1	67	6.1
2nd richest	109	10.3	95	8.3
Richest	111	11.3	116	11.6
Ethnicity of HH head				
Non Kinh	19	1.7	23	1.7
Kinh	88	8.3	83	7.6

N 2012= 2,740 and N 2010 = 2,200

Time use is another indicator of household investment in non-farm household enterprises. Respondents' self-reported number of days working in HHEs (see Table 3.5) is approximately stable between survey rounds, with the notable exception of the average household in Ha Tay (an increase of over a month of time invested in HHE activities) and Khanh Hoa (a decrease of about 47 days).

With respect to time invested in HHEs and household or personal characteristics, within-year averages provide a clearer picture and indicate two trends: time invested in household enterprises is significantly higher amongst wealthier households, and Kinh-headed households invest significantly more time in their businesses than ethnic minority households.

3.5 Constraints to Small Business Development

To develop an understanding of the constraints affecting the formation and operation of HHEs, the 2012 survey round included an expanded section asking respondents to rank a variety of constraints in terms of difficulty, like business registration, land purchase/rental, borrowing money, buying inputs, etc.[11] Table 3.6 summarises the findings from this section of the questionnaire.

The majority of households respond 'Do not know', 'Easy' or 'Neither easy nor difficult' when

11 Some comparisons can be drawn with the 2012 Province Competitiveness Index available at: http://www.pciviet-nam.org/reports_home.php.

asked what level of difficulty they face in relation to a variety of different aspects associated with starting and operating a household enterprise. This suggests that for the most part households are not very constrained in terms of running their businesses or are not aware of these constraints. The issues that were more likely to be reported as posing some difficulties include borrowing money and accessing markets for output (approximately 20 percent of households report some difficulties in relation to each of these issues).

Table 3.6: Constraints Faced by HHEs (percent)

Level of difficulty	Very difficult	Difficult	Neither easy nor difficult	Easy	Very easy	Do not know
Register your business	0.3	4.1	19.5	15.8	3.0	55.8
Comply with business regulations	0.3	4.5	25.1	18.0	3.5	46.9
Buy or rent land	0.6	7.7	20.6	15.9	2.4	50.2
Borrow money	1.3	19.2	28.3	14.8	2.1	32.8
Save money in a state or commercial bank	0.4	1.6	17.9	26.5	16.5	35.5
Hire skilled workers	1.1	10.8	19.6	10.4	1.6	54.3
Train employees	1.4	10.8	19.8	9.4	1.0	55.0
Learn about new technologies	2.0	12.2	19.7	7.7	1.4	54.6
Purchase new machinery	1.6	12.8	20.8	11.8	3.4	47.1
Access markets for what you produce	2.8	17.9	30.5	14.9	3.0	29.5
Buy inputs	0.1	7.7	31.4	31.3	6.0	22.3

N= 703. This is rather low due to missing data.

In addition to business-specific constraints, Table 3.7 summarises data about respondents' perceptions regarding constraints created by the environment in which HHEs operate. Broadly speaking, it appears that most respondents do not characterise corruption and infrastructure as significant impediments to operating HHEs, but there is variability across provinces and other household groups. For example, in Lam Dong, 33.3 percent, and in Khan Hoa, 14.3 percent, of households report that corruption imposes a large or very large cost on HHEs. Moreover, in Lao Cai, Phu Tho and Lai Chau, households have a poor perception of local infrastructure relative to other provinces (30.4, 22.4 and 38.2 percent of households, respectively, report that local infrastructure as it relates to their HHE is bad or very bad). Infrastructure is perceived as worse by poor and non-Kinh households, while corruption appears to affect richer and Kinh households to a greater extent.

Table 3.7: Assessment of Corruption and Infrastructure (percent)

	Assessment of costs imposed by corruption (N: 721)			Assessment of local infrastructure (N:723)		
	Large and Very large	Small	No effect	Good and Very good	Neither good nor bad	Bad and Very bad
Total 2012	5.0	25.2	69.8	20.5	67.4	12.2
Province						
Ha Tay	4.1	25.9	70.0	20.9	72.3	6.8
Lao Cai	4.3	21.7	73.9	17.4	52.2	30.4
Phu Tho	4.7	35.3	60.0	10.6	67.1	22.4
Lai Chau	4.4	5.9	89.7	4.4	57.4	38.2
Dien Bien	0.0	14.3	85.7	7.1	85.7	7.1
Nghe An	5.1	28.8	66.1	47.5	50.8	1.7
Quang Nam	4.9	20.7	74.4	31.3	65.1	3.6
Khanh Hoa	14.3	78.6	7.1	25.0	75.0	0.0
Dak Lak	4.7	4.7	90.7	2.3	88.4	9.3
Dak Nong	0.0	12.1	87.9	15.2	72.7	12.1
Lam Dong	33.3	41.7	25.0	50.0	50.0	0.0
Long An	3.7	31.5	64.8	21.8	63.6	14.5
Gender						
Female	6.7	25.0	68.3	20.0	68.3	11.7
Male	4.7	25.3	70.0	20.5	67.2	12.3
Food expenditure quintile						
Poorest	1.0	10.7	88.3	8.7	68.3	23.1
2nd poorest	4.0	16.0	80.0	13.6	69.6	16.8
Middle	3.7	24.3	72.1	22.8	67.6	9.6
2nd richest	5.6	30.9	63.5	23.5	69.3	7.3
Richest	8.7	34.9	56.4	27.3	62.8	9.9
Ethnicity of HH head						
Non Kinh	2.6	9.6	87.8	6.1	61.7	32.2
Kinh	5.4	28.2	66.3	23.2	68.4	8.4

Reduced sample size due to missing data.

3.6 Summary

Small-scale household enterprises are only studied as one component of the overall income of households. The contribution of HHEs to income in rural Vietnam remains smaller than that of agriculture and wage income, but is an appreciable one that absorbs significant investments of households' time and money. On balance, while education and ethnic status are strong predictors of the financial investment in, performance of, and time allocated to household enterprises, these micro-enterprises remain small in size and most often informal and based

in the household home. Their scale means that this sector is not yet driving a broad-based expansion in rural formal, or informal, labour demand.

In general, the data presented in this chapter suggest that relatively few business owners feel constrained by business regulation and lack of access to land, information, or other resources. Further research should investigate whether this shows that conditions for doing business are in fact quite good in Vietnam, if the results are a result of business owners not seeking to grow their enterprises. Constraints that do appear to hinder households in expanding and growing their enterprises include difficulties in accessing credit and output markets, suggesting there may be some justification for policies providing support to business in these areas. It is difficult, however, to infer concrete policy implications from the descriptive analysis presented here and further in-depth investigation is needed to determine how policy can be designed to support the growth of viable enterprise activities.

As Vietnam's economy continues the process of structural transformation from subsistence agriculture towards higher value-added activities, it will be increasingly important to monitor household firms to investigate their effects on welfare and employment creation in rural areas, and in particular to observe which factors mediate the graduation of these firms from small scale household enterprises into larger, sustainable businesses.

CHAPTER 4: LAND

This chapter investigates issues related to land. We present statistics on several important topics such as land distribution, Land Use Rights Certificates (LURC), land fragmentation, and households' involvement in the markets for buying, selling, and renting land. The VARHS questionnaire collects data on four types of land: (i) land owned and used by the household; (ii) land not owned but used by the household (i.e. rented in or borrowed in land); (iii) land owned but not used by the household (i.e. rented out or lent out land); and (iv) land the household owned in the past where ownership has ceased (i.e. because the land was sold or exchanged, given away or expropriated).

Vietnam has 33.1 million hectares of land. The country has one of the lowest amounts of land per capita of around 0.38 ha, while agricultural land per capita is approximately 0.30 ha. To manage and protect land used for agriculture, aquaculture, and salt production, Vietnam has issued a number of legal documents including laws, decrees, and decisions to strictly manage the conversion of agricultural land into land for non-agricultural purposes. These initiatives are aimed at strengthening national food security, encouraging farmers and localities to keep paddy land and to convert unused land to agricultural land. As a result, total agricultural land area has increased.[12]

Land use in Vietnam seems to have become gradually more economically rewarding and efficient. This is important with a view to food security, urban development, industry, and services in the process of national industrialisation and modernisation. For rural society, land is vital for agricultural production. In the next section, we consider distribution and fragmentation of land owned by the households in the sample.

4.1 Distribution and Fragmentation of Land

In Vietnam, land is allocated by the State. Households use more than 14 million ha (53.6 percent of total agricultural land). The rest of the land is allocated to other land users, such as the Commune People's Committees, local economic organizations, other domestic agencies, and foreign individuals and organizations. Farmers have been encouraged to use land for cultivating especially food production, cash crops, and aquaculture. As a result, Vietnam has become a leading exporter of several agricultural products such as rice, seafood, rubber, and pepper. The preparation and implementation of land use planning and land use plans have contributed to the change of the rural face. Agricultural land has been allocated based on the principle of protection of land for growing rice, in order to ensure the goal of providing enough food for domestic consumption as well as for strategic reserves and for exporting. In this section, we investigate agricultural land holdings of rural households.

12 The agricultural land increased by 556 thousand ha during 2001-2010. The Government has proposed to the National Assembly to consider maintaining a target of 3.8 million ha of paddy until 2020.

Table 4.1 presents the distribution and fragmentation of the land holdings of the sampled households.

Table 4.1: Distribution and Fragmentation of Owned Land

	Landless-percent	Total agr. Land (sqm), mean	Total agr. land (sqm),-Median	Annu-al land (sqm), mean	No. of plots per HH, mean	No. of plots per HH, max	Plots shar-ing border w. other plots, per-cent	Plot Size (sqm) mean	Plot Size (sqm), median
Total 2012	9.6	7,897	3,079	4,403	4.4	24	15.3	1,784	500
Province									
Ha Tay	8.6	1,922	1,372	1,536	4.7	17	14.3	404	240
Lao Cai	3.8	9,885	6,640	5,930	4.9	12	13.0	1,865	900
Phu Tho	9.4	3,963	2,140	1,790	5.7	24	10.6	617	312
Lai Chau	9.2	8,627	7,000	8,041	4.9	14	9.8	1,517	1,000
Dien Bien	4.7	10,916	9,150	9,633	5.7	13	13.4	1,809	1,000
Nghe An	6.7	7,471	3,006	2,582	4.9	14	10.4	1,519	452
Quang Nam	11.4	3,940	2,200	2,695	3.9	13	8.6	964	500
Khanh Hoa	22.8	8,827	4,200	4,532	3.0	16	10.2	2,382	1,000
Dak Lak	8.6	13,807	10,780	5,562	3.7	11	21.0	3,484	2,000
Dak Nong	8.2	24,083	18,000	6,440	3.0	7	12.8	6,944	3,000
Lam Dong	8.1	14,778	9,650	2,333	2.9	9	13.4	4,827	2,670
Long An	13.5	14,745	5,700	11,264	2.9	15	39.3	4,161	1,800
Gender of HH head									
Female	15.9	5,531	2,270	3,380	3.8	16	15.6	1,387	420
Male	8.0	8,455	3,400	4,643	4.5	24	15.2	1,868	500
Food expenditure quintile									
Poorest	8.5	10,780	4,750	6,065	4.4	17	10.7	2,099	900
2nd poorest	10.2	8,544	3,402	4,803	4.4	16	13.4	1,784	570
Middle	8.7	7,899	2,933	3,064	4.3	15	17.2	1,448	500
2nd richest	13.6	7,019	2,391	3,236	4.4	17	15.3	1,652	432
Richest	12.1	5,243	2,304	4,357	4.2	24	20.7	1,949	427
Total 2012 panel	7.9	7,861	3,040	4,436	4.3	24	15.3	1,823	500
Total 2010 panel	6.3	8,197	3,425	4,330	4.6	26	13.8	1,773	500

N 2012 = 2,356 households; N 2012 plots = 9,926 (N 2012 panel= 9,821 plots; N 2010 panel =9,805 plots)

In Table 4.1, the total size of land owned by households measured in square meters, number of plots owned, and fragmentation measured as number of plots, as well as the average size of each plot. Column 1 of Table 4.1 provides detailed statistics on the percentage of households that do not own land. Overall, approximately 10 percent of households in the sample do not own any agricultural land.

The percentage of landless households differs over the 12 provinces, with the Southern provinces showing a higher share of landless households compared to the Northern provinces. Female-headed households are more likely to be landless than their male-headed counterparts. In total, 16 percent of female-headed households are landless. This is statistically significantly higher than the eight percent of male-headed households that are landless.

Landlessness is, however, not necessarily linked with poverty, as many richer households have little or no land. This may imply that the contribution to income from agricultural production is playing a less important role in the total income of rich households.

Further, landlessness has increased for the panel households over the two-year period 2010 to 2012. Overall, 8 percent of the panel households were landless in 2012, a statistically significant increase from 2010. There is a correlation between being a more economically dynamic province and having more households that do not own land: rural households in economically better-performing regions have a higher likelihood of finding non-farm jobs and as a consequence they sell their agricultural land. For further discussion of this issue see Chapter 9 on migration and Chapter 5 on crop production, as well as Ravallion and Van de Walle (2008).

Looking at total agricultural land, Table 4.1 shows that households in the Southern provinces have more land than farmers in the Northern provinces. In terms of land and socioeconomic status we observe that poorer households have a larger area of agricultural land (10,780 square meters) compared to the richest households (5,243 square meters). This is likely due to poorer households being more dependent on agriculture. Male-headed households have on average larger sizes of land than female-headed households.

The variation in land holdings across provinces is partly due to historical reasons and also to differences in population. The North is more densely populated. In addition, land is more likely to be fragmented in the North. One way of measuring land fragmentation is by calculating the number of plots a household operates. In Table 4.1 we see that the average number of plots per household is higher in the Northern and North-western provinces of Phu Tho, Dien Bien, Lai Chau, and Nghe An.

The average number of plots is lowest in the Southern provinces of Lam Dong, Dak Nong, and Long An. The maximum number of plots owned by a single household is as high as 24 in Phu Tho. However, in Dak Nong in the South the number of plots does not exceed seven plots per household. Additionally, land in the North is not only more fragmented but also smaller in terms of the average size of plots.

In Table 4.2, we present a transition matrix of landless households between 2010 and 2012, and between 2006 and 2012. Some 89.5 percent of the households surveyed in all years owned land in 2006 and 2012, while around three percent were landless in both years. Of the nearly 8 percent landless households observed in 2012 (see Table 4.1), 4 percent were structurally landless while 2.5 percent became landless between 2010 and 2012. The longer term transition between 2006 and 2012 shows a rise in households becoming landless.

Table 4.2: Landlessness Transition Matrix, 2006-2010-2012 (percent)

	Between 2010 and 2012	Between 2006 and 2012
Never landless	91.5	89.5
Became landless	2.5	4.1
Escaped landlessness	2.0	3.1
Always landless	4.0	3.3
N =	2,192	2,039

In Figure 4.1, we turn to the distribution of land across households by region (North and South) and by year (2012 and 2010). The first two panels at the top of the figure (*a* and *b*) show the distribution of land in 2012 by region, as well as, a comparison of land distribution in 2012 and 2010.[13]

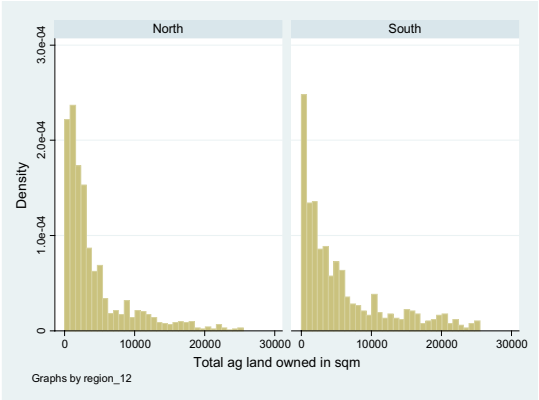
Panel (*a*) demonstrates that the average size of land holdings is small, with the majority of farms being less than one hectare in size. Panel (*a*) also portrays the differences in the land distribution between the North and the South. The South has larger farms. In the North, 85.8 percent of households have farms of less than one hectare while in the South the corresponding figure is 69.2 percent.

In the North, farms with a size of more than three hectares are rare (around 1.7 percent) compared to the South where farms larger than three hectares account for almost 9 percent of all farms. Panel (*b*) presents a comparison of land distribution in 2012 and 2010 (for the households that have been interviewed in both years). Land owned by households has decreased slightly but statistically significantly over the two-year period.

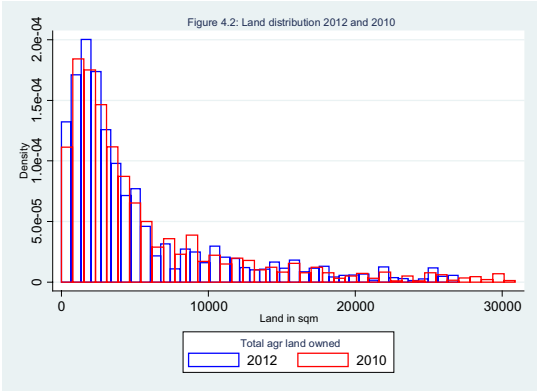
13 The top 5th percentile is excluded to avoid bias due to a few very high outliers.

Figure 4.1: Total and Regional Land Distribution

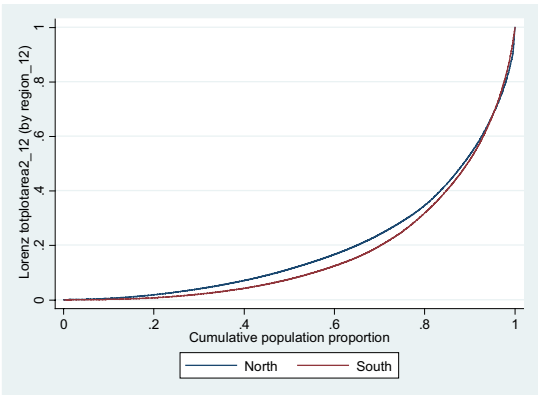
a. *Total* Land distribution 2012 (lower 95 percent percentile) by region



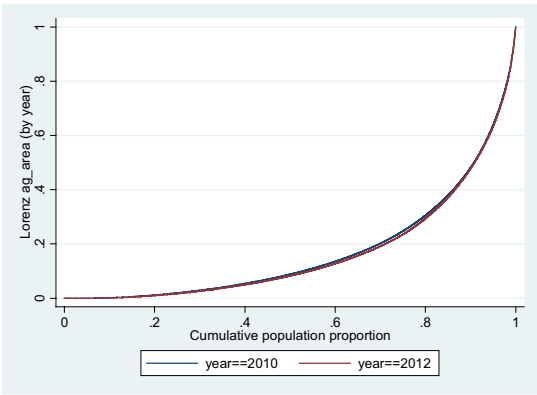
b. *Total* Land distribution 2012 and 2010 (lower 95 percent percentile)



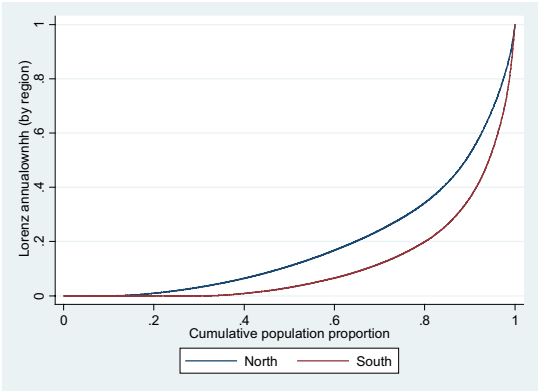
c. Total *agricultural* land distribution (Lorenz curve) 2012 by region



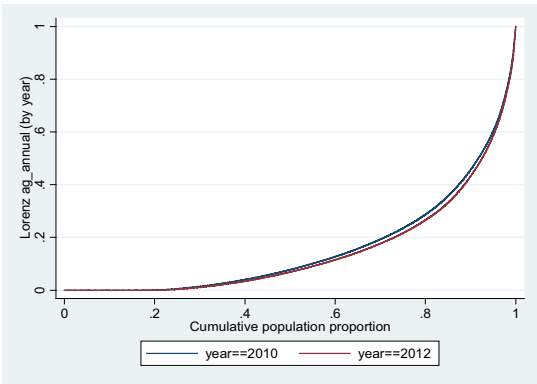
d. Total *agricultural* land distribution(Lorenz curve) by year



e. *Annual* land distribution 2012 by region



f. *Annual* land distribution by year



The two middle panels (*c* and *d*) present the Lorenz curves for the distribution of total agricultural land by region (North and South) and by year. Panel (*c*) shows a less equal agricultural land distribution in the South. The distribution over the two-year period 2010 to 2012 does not appear to have changed. The lower two diagrams (*e* and *f*) show distribution of

land used designated for production of annual crops by region and by year. Results show that the distribution of annual land is also less equal in the South.

In Table 4.3, Gini coefficients for the distribution of land across provinces are presented to investigate land inequality in detail. As with agricultural land, the distribution of land does not appear to have changed significantly over the two years.

Table 4.3: Plots Acquired by Source (percent)

	State	Inheritance	Sales market (=bought)	Cleared and Occupied	Exchanged	Obtained	Other	GINI
Total 2012	59.8	17.3	9.0	13.0	0.4	0.3	0.2	0.66
Province								
Ha Tay	88.7	8.0	1.9	0.9	0.2	0.2	0.0	0.49
Lao Cai	36.0	38.4	6.4	19.1	0.0	0	0.0	0.48
Phu Tho	82.8	10.7	2.7	2.7	0.5	0.2	0.3	0.54
Lai Chau	17.2	15.8	0.4	65.2	0.0	1.4	0.0	0.41
Dien Bien	29.8	15.4	2.3	52.1	0.0	0.0	0.3	0.39
Nghe An	76.3	12.7	4.7	5.4	0.7	0.0	0.1	0.72
Quang Nam	81.8	12.9	1.8	3.1	0.1	0.0	0.2	0.60
Khanh Hoa	32.8	28.0	22.8	12.1	2.6	1.2	0.4	0.71
Dak Lak	14.3	12.8	46.1	24.8	0.5	0.7	0.6	0.47
Dak Nong	5.5	14.4	50.0	29.5	0.3	0.0	0.3	0.51
Lam Dong	5.0	22.9	29.3	42.2	0.0	0.5	0.0	0.46
Long An	10.2	63.5	23.9	1.1	0.4	0.8	0.0	0.68
Gender of HH head								
Female	67.2	15.8	8.3	7.6	0.5	0.5	0.0	0.69
Male	58.2	17.6	9.2	14.1	0.2	0.3	0.2	0.64
Food expenditure quintile								
Poorest	45.9	18.1	5.8	29.3	0.3	0.5	0.1	0.69
2nd poorest	57.1	18.9	7.8	15.5	0.1	0.4	0.2	0.63
Middle	65.2	15.9	10.9	6.8	0.5	0.3	0.2	0.62
2nd richest	67.2	15.8	10.3	6.2	0.2	0.1	0.2	0.60
Richest	65.9	16.7	11.0	5.5	0.6	0.2	0.1	0.66

N =10,265 plots

Note: The GINI coefficient for the Northern six provinces is 0.61 in 2012 while the GINI coefficient for the Southern six provinces is 0.66.

Table 4.3 also displays interesting patterns of modes of land acquirement across provinces. Households located in the Northern provinces have to a larger extent received their land from the State or the commune. The highest prevalence of households that have bought their land at the market is found in the Central Highland provinces of Dak Lak, Dak Nong, and

Lam Dong. In Dak Nong, half of all plots have been purchased. The lowest level of market acquisition is in the North-western province Lai Chau where just 0.4 percent of all plots are purchased. This clearly indicates a less dynamic rural land market in the North compared to the Southern provinces.

Table 4.3 also demonstrates variation across gender of the household head. Female-headed households have statistically significantly more land acquired through the State or the commune than male-headed households. This could imply that female heads are less actively involved in the land market. Looking at socioeconomic status and mode of acquirement, the richest households are more likely to have received their plot through the State or the commune (66 percent compared to around 46 percent for the poorest). Poorer households are more likely to have cleared and occupied the land they have. This is explained by the fact that poor households are disproportionately found in upland provinces, where land clearing is much more common. Eleven percent of the richer households report that they have bought their land compared to 6 percent of the poorest. This suggests that the richer households are more active in the land market. The average Gini coefficient (for the total sample) for land distribution is 0.66. The Gini coefficient for the six Northern provinces was 0.61 and 0.66 in the six Southern provinces in 2012.

Table 4.4 shows the source of acquirement for recently acquired plots (within the past three years), divided by region.

Table 4.4: Sources of Recently Acquired Plots (Past Three Years)

Acquirement source of plots	Total		North		South	
<3 years	**Total**	**Percent**	**Total**	**Percent**	**Total**	**Percent**
Total	296	100	159	100	137	100
State/Commune	36	12.1	17	10.7	19	13.9
Inheritance	88	29.7	57	35.9	31	22.6
Sales market (bought)	108	36.5	34	21.4	74	54.0
Cleared and occupied	41	13.8	36	22.6	5	3.6
Exchanged	21	7.1	14	8.8	7	5.1
Other	2	0.7	1	0.6	1	0.7

N=296 plots

As in Table 4.3, Table 4.4 portrays large variation in modes of acquirement between the North and the South. In the South 54 percent of all plots recently acquired have been bought at the market compared to 21.4 percent of plots in the North. At the same time, more plots have been obtained through inheritance in the North compared to the South (almost 36 percent in the North versus 22.6 percent in the South). A possible explanation for this is that households in the North are more likely to perceive land as inalienable to the family, while households in the South typically view land as a commodity, which can be traded on the market.

A higher share of recently-acquired plots have been cleared and occupied in the North (22.6 percent) than in the South (3.6 percent). Of interest is the relatively small share of recent plots that have been obtained from the State or the commune (around 12 percent for both regions). This may suggest that public land available for allocation to rural households has become scarcer. More plots are now acquired through transactions in the land market. These results are consistent with the detailed findings on land transactions reported in Khai et al. (2013).

4.2 Land Titles

Nearly a decade has passed since the implementation of the Land Law of 2003, which established the system of Land Use Right Registration Offices alongside guidance and financial support of the Central Government, funding from localities, and measurement of cadastral mapping. Registration and issuance of certificates for land use rights have been strengthened according to the Ministry of Natural Resources and Environment (MONRE). As a result of these efforts, 75 percent of all land has been mapped and Land Use Rights Certificates (LURCs) have been issued to 85 percent of agricultural land. In 2012 alone, according to the General Department of Land Administration, MONRE, 1,822,200 LURCs were newly issued while in 2010 and 2011 732,200 LURCs were issued. In addition, in 2012 there were 2,640,000 LURCs reissued, an increase of 1,696,000 compared to the years 2010 to 2011.

Table 4.5 presents statistics on the issuance of LURC for land use in agriculture, forestry, and aquaculture. The table shows that Long An, Ha Tay, and Phu Tho have the highest share of land registered with a LURC. Lai Chau in the North-West has the lowest share (22.7 percent).

The Land Use Rights Certificates (LURC) is commonly referred to as a "Red Book". A Red Book is a formal documentation held by the household in which the Land Use Rights Certificate (LURC) for each plot is registered. A LURC provides the household with security in the form of legal protection in the event of disputes, complaints or adjustments to land holdings in the case of changes in land use.

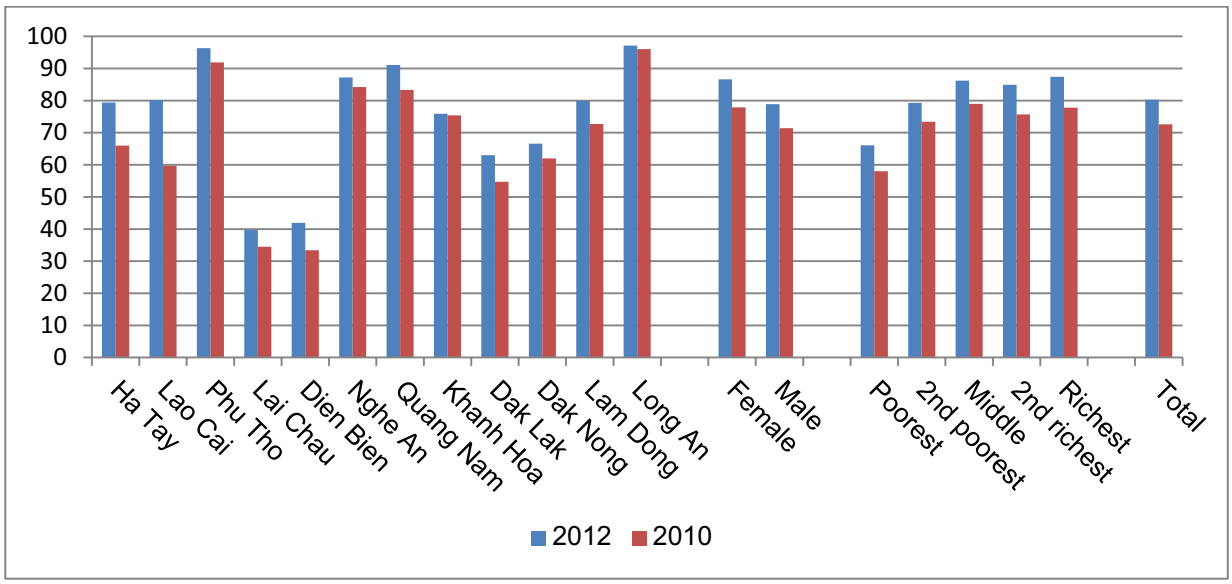
There is, however, large variation in the number of plots that different households have registered. Figure 4.2 presents statistics on the percentage of plots owned by a household that is registered (i.e., has a LURC) for 2012 and 2010. Figure 4.2 reveals that overall 80 percent of plots had a LURC in 2012 compared to 72.6 percent in 2010.

Table 4.5: Issuance of LURCs in the 12 Surveyed Provinces

Province	Agricultural production land			Forestry land			Aquaculture land		
	No of LURC	Area (ha)	Percent area with LURC	No of LURC	Area (ha)	Percent area with LURC	No of LURC	Area (ha)	Percent area with LURC
Ha Tay	646,863	132,277	87.0	1,204	4,174	17.4	6,089	1,367	12.9
Lao Cai	130,856	58,934	72.1	70,803	256,792	90.1	22,210	1,400	68.5
Phu Tho	248,826	74,688	83.5	34,621	110,144	70.2	9,738	3,965	79.3
Lai Chau	38,847	20,418	22.7	33,521	252,599	89.3	2,020	196	35.5
Dien Bien	46,051	82,021	53.3	43,677	300,572	62.6	3	0.3	0.0
Nghe An	493,629	170,287	67.7	84,885	362,798	50.2	10,528	1,373	19.2
Quang Nam	253,388	92,106	81.5	34,043	66,107	27.4	1,158	731	20.6
Khanh Hoa	87,208	64,474	69.9	6,794	128,212	65.6	3,897	3,391	62.4
Dak Lak	345,361	336,442	64.1	901	445,507	87.4	9,350	1,029	45.3
Dak Nong	100,321	196,526	66.4	193	278,998	90.4	2,989	897	54.2
Lam Dong	306,953	221,875	70.1	21,66	572,879	99.5	11,850	1,526	71.1
Long An	405,315	287,754	93.1	16,290	35,583	81.0	14,731	6,822	82.8

Source: General Department of Land Administration, MONRE

Figure 4.2: Proportion of Plots Owned with a LURC (percent)



N 2012 = 9,825 plots N 2010= 9,814 plots

As Figure 4.2 clearly indicates there are large provincial differences in the percentage of registered plots. In the mountainous provinces of Dien Bien and Lai Chau less than 40 percent of plots have been registered. One explanation for the low level of registration in these provinces is that the plots are situated in upland areas with challenging topography and

steep slopes. The location of the plots makes land registration difficult due to, among other things, measurement of the plots. In addition, migration and the re-allocation of land in connection with development of the Son La Hydropower Plant could also explain the low level of registration.

In the Central Highland provinces in the South, the percentage of plots that have a LURC is low compared to Long An in the Mekong River Delta, where registration of plots is at 91 percent. Differences in land titling between male and female-headed households are also evident in Figure 4.2. Plots owned by female-headed households are more likely to have a LURC than plots owned by a male-headed household. The result can be compared with the statistics presented in Table 4.1. Here it was shown that female-headed households have acquired a larger share of their plots from the State or through inheritance. Finally, the figure also shows large differences across socioeconomic status as richer households are more likely to have land titling for their plots compared to poorer households. This is true for both years. In 2012, 87 percent of plots owned by the richest households were registered with a LURC compared to 77 percent in 2010. The poorest households had a LURC for 66 percent of all plots owned in 2012 and 58 percent in 2010 (a gap of 21 percentage points between richer and poorer households in 2012). Thus the poorer households have lower tenure security. This could potentially affect other economic aspects such as investment in land, an issue that will be explored in sub-Section 4.6.

Table 4.6: Reasons for a Plot Not Having a LURC (percent)

	Total	North	South
Total	100	100	100
Land in conflict	0.3	0.2	0.5
Land acquired and no RB yet	47.7	54.3	29.5
Agreement to be using land but do not hold RB	24.9	21.8	33.5
Redbook ready but not collected from the authorities	10.8	9.1	15.4
Don’t know what a RB is	0.6	0.6	0.3
Other	15.7	13.9	20.7

N=2,450 plots

Note: RB is an abbreviation for Red Book (LURC).

As Figure 4.2 demonstrated not all plots owned by a household is formally registered. In Table 4.6 reasons for not having a LURC for a plot is presented. The statistics are divided by region to examine differences across the North and the South.

The majority of the plots that do not have a Red Book yet are newly acquired plots. This is especially the case in the North.

Another reason for not having a Red Book could be that households fear collecting it from the

authorities. A household may be afraid that if they collect the Red Book for their plot, they might have to pay accumulated debts/responsibilities (the local authorities may take this opportunity to force people to pay their debt and/or to take social responsibilities that they have not yet taken before). Further, households that are not involved in land transactions and have no safe place to keep the Red Book may perceive little incentive to collect it. Interestingly, only a tiny fraction of households report "conflict" as the reason for not having a Red Book.

Following the 1993 Land Law, LURCs included the name of just one person, usually the head of the household. The newest Land Law of 2003 made it possible to register two names in the case of a married couple, i.e., including the spouse. The majority of beneficiaries from the new policy are women, as land-related documents used to be registered in the name of the husband/household head only. The purpose of the change in the law is to improve gender equality in rural areas.

In order to see how the Land Law of 2003 has affected the registration of the households in our sample, Table 4.7 presents a summary of name registration structure in the LURC. The table shows that, overall, the majority of plots are registered by the head. Some 13 percent of plots are registered by both the head and the spouse, with variation across provinces. Registration of plots by both head and spouse is high in Khanh Hoa (42.1 percent) and low in Ha Tay, Nghe An, and Long An (around 8 percent). The richest households have a high share of registration of the head only compared to the poorer households (78 percent versus 71 percent).

One explanation for the variation across socioeconomic status could be that poorer household received LURCs for the first time after the Land Law of 2003, while richer households have older LURCs from before the change in regulation. This would imply that richer households traditionally have had better land security than the poorest households (who have more recently begun to register their plots).

Table 4.7: Name Registration Structure in LURC (percent)

	Only head	Only spouse	Both head and spouse	Other
Total 2012	74.3	4.0	12.9	8.8
Province				
Ha Tay	76.9	5.0	8.2	9.9
Lao Cai	57.1	3.8	32.9	6.3
Phu Tho	71.1	4.7	13.6	10.5
Lai Chau	72.3	0.4	19.7	7.6
Dien Bien	70.8	5.3	14.8	9.1
Nghe An	80.5	6.1	7.6	5.9
Quang Nam	87.4	1.8	2.8	7.9
Khanh Hoa	43.8	5.6	42.1	8.4
Dak Lak	70.5	0.7	14.2	14.6
Dak Nong	60.0	1.6	29.8	8.6
Lam Dong	48.1	3.2	39.7	9.0

Long An	82.1	4.0	8.3	5.5
Gender of HH head				
Female	66.5	8.6	5.3	19.5
Male	76.3	2.8	14.8	6.1
Food expenditure quintile				
Poorest	71.3	5.1	16.4	7.3
2nd poorest	74.6	2.0	12.7	10.8
Middle	71.0	6.0	15.4	7.5
2nd richest	76.4	2.7	12.3	8.6
Richest	78.4	4.0	7.7	9.8
Total 2012 panel	76.2	4.0	11.6	8.0
Total 2010 panel	82.0	3.5	8.6	5.7

N 2012 = 7,461 plots (N 2012 panel = 8,911 plots; N 2010 panel = 7,790 plots)

The table also displays statistics for panel households to look at changes over 2010-2012. Some 11.6 percent of LURCs are registered in both the name of the head and the spouse in 2012 – a statistically significant increase from 2010 suggesting improvements in the economic rights of spouses in recent years.

4.3 Restrictions on Land Use

In this section we turn to restrictions on land use issued by the authorities. Motivated primarily by food security concerns, the Vietnamese State strictly supervises the transfer of land use from rice to the production of other crops and to non-agricultural use. Table 4.8 shows the percentage of plots with restrictions placed on them, and the different types of restrictions on land use among the surveyed households.

The table demonstrates substantial variation at provincial level in terms of restrictions set by the authorities. In the North, there is less freedom among households surveyed in the general choice of which crops to grow compared to the provinces in the South. Yet, in the South more of the restricted households are demanded to grow rice. The highest percentage of restricted plots (for rice) is seen in Lam Dong where all plots are required to grow rice in all seasons.

Land use purposes such as constructing fixed structures or turning land into non-agricultural use is clearly more restricted by the authorities. The results show that rural households in the North are more restricted than farmers in the South. In Lai Chau and Phu Tho in the Northwest around 85 percent of all plots are not allowed to be used for non-agricultural purposes or to have fixed constructions built on them, whereas, in Lam Dong in the South the figure is 14.4 and 16.5 percent, respectively.

The table demonstrates substantial variation at provincial level in terms of restrictions set by the authorities. In the North, there is less freedom among households surveyed in the general choice of which crops to grow compared to the provinces in the South. Yet, in the South more of the restricted households are demanded to grow rice. The highest percentage of restricted plots (for rice) is seen in Lam Dong where all plots are required to grow rice in all seasons.

Table 4.8: Restriction on Non-Residential Plots (percent)

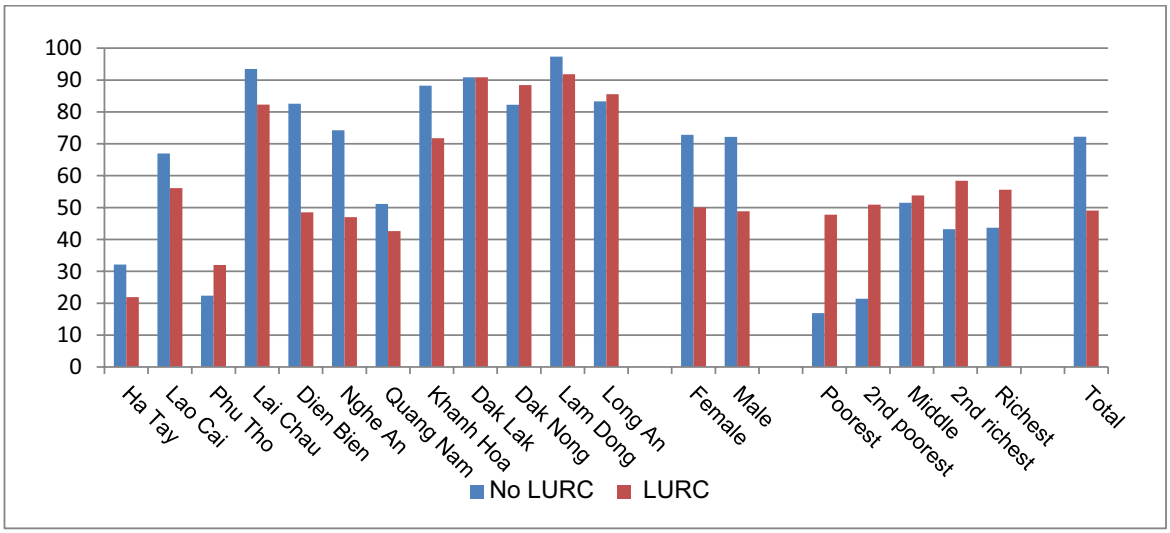
	Formal restrictions on choice of crops	Types of restrictions on choice of crops:			Construct fixed structure (not allowed)	Convert into non-agricultural use (not allowed)
		Rice all seasons	Rice some seasons	Others		
Total 2012	45.3	56.1	38.4	5.5	67.5	66.9
Province						
Ha Tay	75.8	48.4	50.7	0.8	79.5	80.1
Lao Cai	41.1	24.3	62.1	13.6	72.3	70.7
PhuTho	68.4	42.6	47.7	9.7	81.7	79.7
Lai Chau	10.6	53.3	35.0	11.7	86.2	85.9
Dien Bien	30.4	88.2	1.6	10.2	50.2	44.1
Nghe An	48.8	58.8	30.9	10.3	72.6	72.6
Quang Nam	56.5	81.9	16.1	1.9	82.3	82.3
Khanh Hoa	23.4	90.2	9.7	0.0	44.6	48.8
Dak Lak	9.1	65.8	28.9	5.3	45.5	46.8
Dak Nong	13.9	86.7	13.3	0.0	33.4	37.6
Lam Dong	6.9	100.0	0.0	0.0	14.4	16.5
Long An	14.6	85.8	11.7	2.3	48.1	46.2
Gender of HH head						
Female	45.7	66.8	28.7	4.5	66.2	65.9
Male	45.2	53.8	40.4	5.7	67.8	67.1
Food expenditure quintile						
Poorest	38.1	51.3	42.1	7.0	71.3	71.2
2nd poorest	46.7	57.4	38.2	4.5	73.6	71.8
Middle	54.9	62.5	32.3	5.3	71.7	71.8
2nd richest	56.4	51.2	43.8	4.8	73.4	72.0
Richest	54.6	46.4	48.5	5.2	59.5	60.5

N = 7,046 plots.

Land use purposes such as constructing fixed structures or turning land into non-agricultural use is clearly more restricted by the authorities. The results show that rural households in the North are more restricted than farmers in the South. In Lai Chau and Phu Tho in the Northwest around 85 percent of all plots are not allowed to be used for non-agricultural purposes or to have fixed constructions built on them, whereas, in Lam Dong in the South the figure is 14.4 and 16.5 percent, respectively.

Figure 4.3 shows, the relationship between land titling and the restrictions placed on plots in terms of crop choice. The figure demonstrates that plots with a LURC are more likely to be restricted in terms of choice of crop. Therefore, stronger tenure security (LURCs) does not imply stronger rights in terms of crop choice. Rather, the opposite is the case. For in-depth nalyses of crop chouice restrictions, based on VARHS 2006 and 2008, see Markussen, Tarp and Van den Broeck 2011.

Figure 4.3: Share of Plots with Restricted Choice of Crop, by Red Book status (percent)



N =7,406 plots.

4.4 Investment in Land

This section explores investments in land. Table 4.9 shows the current status of land investment in irrigation and planting of trees and bushes. Results are presented separately for plots with a LURC and plots without LURCs to see whether investment status is correlated with formal land titling. One rationale for issuing land titling is to provide households with security which may encourage them to make longer-term investments in land.

Overall, 82 percent of plots that have a LURC have irrigation. Of plots without a LURC only 55 percent have irrigation. The result shows how land titling may be positively correlated with long-term investments. Irrigation varies a great deal across provinces. The poor provinces of Lao Cai, Lai Chau, and Dien Bien have a very low percentage of plots that have irrigation compared to Ha Tay, Lam Dong, and Long An. Across all provinces, we see a clear tendency that plots with LURCs are more irrigated. The largest difference is found in Lai Chau and Dien Bien where almost 66 percent of plots with LURCs are irrigated compared to around 25 percent of plots that do not have a LURC.

Looking at investments in the form of cultivation of trees and bushes we see that 17 percent of all plots in our sample have made such investments. The gap between plots with and without LURCs is less than one percent for all plots. Nevertheless, a large gap of more than 20 percentage points is found in Dak Nong. The highest prevalence of plots with trees and bushes is found in the Central Highland provinces of Dak Lak, Dak Nong, and Lam Dong.

Table 4.9: Current Status of Land Investment - Irrigation Facilities and Perennial Crops

	Percent of plots w. irrigation			Percent of plots w. tree/bushes		
	All plots owned and used	No LURC	LURC	All plots owned and used	No LURC	LURC
Total 2012	77.1	55.1	82.0	17.2	17.5	18.2
Province						
Ha Tay	97.3	92.8	98.1	4.6	6.2	5.0
Lao Cai	50.8	40.5	56.0	17.4	17.3	17.7
Phu Tho	90.3	84.7	90.1	14.1	22.2	14.1
Lai Chau	40.4	25.5	66.3	6.0	3.8	9.8
Dien Bien	40.2	23.5	65.4	7.9	6.7	9.9
Nghe An	73.4	52.5	76.2	11.7	13.1	12.4
Quang Nam	75.4	68.8	74.7	15.3	20.5	15.6
Khanh Hoa	46.5	38.0	47.5	42.9	38.0	48.3
Dak Lak	72.2	66.6	75.8	50.4	43.9	56.0
Dak Nong	74.6	68.9	77.4	64.2	49.1	72.3
Lam Dong	81.5	76.1	83.3	69.3	73.9	68.8
Long An	79.2	67.7	78.2	23.0	32.2	23.1
Gender of HH head						
Female	77.4	61.5	79.2	20.3	17.7	20.0
Male	77.0	54.2	82.6	17.7	17.5	17.4
Food expenditure quintile						
Poorest	63.5	35.2	75.7	14.1	11.8	15.9
2nd poorest	75.8	45.2	82.6	17.2	16.4	17.5
Middle	83.1	78.6	83.8	18.0	15.7	19.0
2nd richest	84.0	76.3	83.8	16.7	20.7	17.6
Richest	83.4	74.7	84.0	18.0	23.4	18.5

N = 7,753 plots

There is little variation across gender of head, yet, as expected a large variation across socioeconomic status. The poorest households have made significantly lower investments in irrigation and trees and bushes compared to the richest group of households. Of interest is the large discrepancy of investment in irrigation by poor households on plots with and without a LURC. There is an almost 41 percentage point gap for the poor compared to a gap of less than 9 percent for the richest group. The above would support the hypothesis that secure land titling provides incentives to invest in longer-term investments especially for the poor. An important caveat, though, is that the data does not distinguish between public and private investment in irrigation. The higher prevalence of irrigation infrastructure on plots with a LURC probably reflects to some extent more intense public investment in areas with high land titling.

In Table 4.10 statistics on land related investments occurring over the two-year period prior to 2010 and 2012 (i.e., two years prior to the survey) are presented.

Table 4.10: Investment of Households (Last Two Years)

	Irrigation/soil/water conservation		Structures for aquaculture		Other (semi-) permanent structures		Trees and bushes	
	Percent	Value (`000) VND	Percent	Value (`000 VND)	Percent	Value (`000 VND)	Percent	Value (`000 VND)
Total 2012	9.3	2,206	4.3	6,278	5.7	145,642	6.2	4,995
Province								
Ha Tay	11.9	952	1.9	7,625	4.4	228,542	4.4	1,227
Lao Cai	67.7	342	12.1	523	22.2	75,929	9.1	2,014
PhuTho	4.4	2,390	1.0	1,667	3.1	404,901	3.1	1,481
Lai Chau	7.5	1,720	0.7	25,000	1.5	5,850	2.2	1,067
Dien Bien	2.5	6,000	6.7	363	5.0	195,000	0.8	15,000
Nghe An	3.3	1,000	3.3	2,963	12.8	111,413	12.2	6,071
Quang Nam	3.6	1,220	1.4	1,785	5.4	23,839	3.3	1,613
Khanh Hoa	0.0	0,0	2.0	85,000	2.0	52,000	1.0	10,000
Dak Lak	4.7	5,200	3.1	3,500	3.9	250,400	24.8	5,259
Dak Nong	9.2	18,500	3.8	5,075	6.1	238,000	16.0	11,973
Lam Dong	0.0	0,0	0.0	0,0	3.2	306,000	9.5	1,617
Long An	10.7	3,404	15.2	6,141	5.2	67,433	2.8	4,480
Gender of HH head								
Female	4.6	2,681	3.2	6,021	4.4	56,277	3.8	8,269
Male	10.7	2,153	4.6	6,331	6.1	164,189	6.9	4,495
Food Expenditure Quintile								
Poorest	14.0	809	3.9	1,572	6.0	77,377	6.3	3,075
2nd poorest	13.6	1,915	3.6	1,615	6.4	283,045	7.3	4,494
Middle	7.9	2,431	5.0	6,081	7.0	77,378	7.2	4,590
2nd richest	10.1	5,445	3.2	6,050	6.5	163,562	6.1	2,021
Richest	7.0	1,914	10.3	4,758	3.9	221,970	5.0	12,412
Total 2012 panel	10.6	2,400	4.8	4,576	6.4	152,151	6.4	5,019
Total 2010 panel	38.1	528	6.3	7,700	4.1	44,045	11.2	1,885

N 2012 = 2,448 (N 2012 panel = 2,242; N 2010 panel =2,182)

Note: Landless households are not included. Values are expressed in ex-Ha Tay 2010 constant prices

The table displays the percentage of households that have invested and the average value of their investments (for the households that have invested) in constant 2010 ex-Ha Tay prices. Overall, nine percent of all households have invested in irrigation or water and soil conservation over the past two years. Four percent of the households we interviewed have invested in

aquaculture. Almost 6 percent have invested in semi-permanent structures and finally 6 percent have invested in planting of trees and bushes. A very high number of households in Lao Cai have invested in irrigation (almost 68 percent) while no households in Khanh Hoa or Lam Dong have made any investments in irrigation or water and soil conservation over the past two years.

As described in Table 4.9 almost 80 percent of plots are irrigated in Lam Dong, nevertheless, Khanh Hoa has a relatively low level of irrigated plots (less than 50 percent). Lao Cai has also seen a high (compared to the average) share of investments in aquaculture (12 percent), semi-permanent structures (22 percent), and cultivation of trees and bushes (9 percent). Male-headed households have invested more over the two years.

Interestingly, poorer households seem to have had a higher share of households investing in land related investments compared to richer households. The average value of investment varies quite substantially (for example, from 5.9 million VND in Lai Chau to 405 million VND in Phu Tho for semi-permanent structures). Comparing investment in land in 2010 and 2012, we witness a large decline in the share of households investing in irrigation/water/soil conservation (38 percent in 2010 and 10.6 percent in 2012).

There are several explanations for this downward trend in investments. Firstly, the rise in world prices for agricultural products world during 2008 may have encouraged more farmers to invest in their land during 2009 and 2010. Secondly, the world economic crisis has also affected Vietnam, and an overall decline in capital investment occurred during 2010 to 2012, as well as a drop in the growth rate of agriculture. All these factors may explain the lower level of investment we see among the households in the survey.

4.5 Land Transactions

In this section we consider land transactions. In Vietnam, land legislation makes specific provisions for each what land can be used for. According to MONRE, after the 2003 Land Law came into force, the official number of transactions has increased significantly, particularly in localities where the economy is growing faster and where land prices are high. Many localities have organised land consolidation of agricultural land. As a result, the number of plots per household has been reduced significantly. Rental and lease rights to land seem to have had positive impacts on investment in land, enabling investors to more confidently invest in infrastructure and high-tech and economic zones.

Results on participation in the land market, as well as the value of transactions are reflected in Table 4.11. It shows the sales value of agricultural land, land designated for annual crops, and perennial land across provinces. The value is reported per square meter. It should be noted that the value is not the exact value transacted in the market, but the value that households think their plot could be sold for. In many of the provinces, no transactions occurred among the surveyed households. A (.) is used to indicate no estimated sales price due to a low number of observations.

Table 4.11: Approximate Sales Values of Agricultural, Annual, and Perennial Land ('000 VND/sqm.)

	Appro. Sales value of agricultural land	Appro. Sales value of annual land	Appro. Sales value of perennial land
Total 2012	141	145	95
Province			
Ha Tay	402	384	(.)
Lao Cai	97	97	(.)
PhuTho	40	40	40
Lai Chau	14	14	(.)
Dien Bien	4	4	(.)
Nghe An	155	157	(.)
Quang Nam	36	37	32
Khanh Hoa	52	52	53
Dak Lak	33	27	43
Dak Nong	37	46	34
Lam Dong	41	58	33
Long An	70	70	(.)
Gender of HH head			
Female	152	161	41
Male	138	141	105
Food expenditure quintile			
Poorest	122	135	36
2nd poorest	169	157	276
Middle	138	145	37
2nd richest	113	122	26
Richest	158	163	66

Notes: Cell filled with (.) means there are fewer than 10 observations.

Table 4.11 highlights that there are very few observations of land transactions at provincial level, and that a large number of households do not know the value of their plots, especially in terms of land used for perennial crops. It reflects the fact that many farmers do not own perennial land, and that the land market is very thin (i.e. there is little activity) in many areas.

The value of land (both agricultural, annual, and perennial) in the mountainous provinces is relatively small compared to the value of land in the delta and lowland provinces. The statistics also show that the value of land in the delta area in the North is relatively high compared to the South. It is the opposite for upland provinces where there is a higher value of land in the Central Highland compared to the Northern mountainous areas (except for Lao Cai).

The value of land in former Ha Tay (Red River delta) is much higher than that in Long An (Mekong River delta). This may reflect distance to cities – Ha Tay is merged and belong to Hanoi, while Long An is relatively further away from a major city. For agricultural land and

annual land, the perceived value of land by female-headed households is much higher than that of male-headed households.

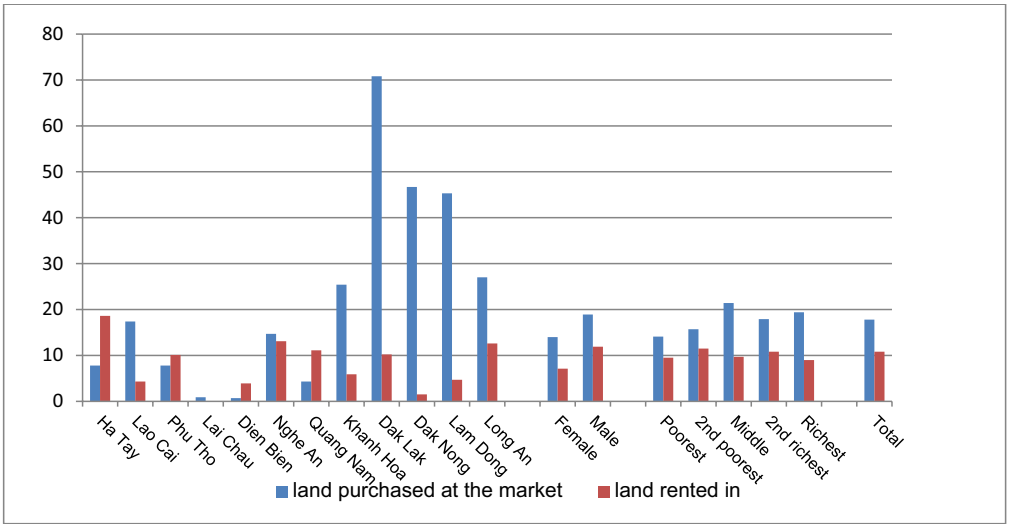
The table also displays variation in perceived sales value across socioeconomic status. The richest households on average report land to have more value than the second richest group, whereas the poorest perceive land to have less value. This would suggest that the richer households tend to hold land of higher quality than the poor.

Figure 4.4 presents an overview of household participation in the land market, showing the share of households who currently own or use agricultural land that has been acquired through the land sales- and rental markets. The figure highlights the large differences in land market activity across provinces.

The share of households who own land that has been purchased at the market for land is highest in the Southern provinces of Dak Lak, Dak Nong, Lam Dong, and Long An. In the North-western mountainous provinces of Lai Chau and Dien Bien, almost no households own land acquired through the land market.

Male-headed households are more likely to have purchased land than female-headed households; and the richest households are more active in the sales market. Some 19 percent of all plots owned by the richest group have been purchased at the market compared to around 14 percent of plots owned by the poorest group.

Figure 4.4: Participation in Agricultural Land Sales and Rental Markets (percent)



N = 2,320

Table 4.12 provides an overview of the share of households who parted with land (column 1) and how plots were parted with during the two-year period prior to the survey. Overall, 9.6 percent parted with their land over the last two years. The highest prevalence of households parting with land is seen in Phu Tho and Dak Nong (almost 17 percent). The lowest level is found in Lai Chau where just 3 percent of all households reported parting with one or more plots.

The majority of plots that have been parted with have been either sold, given away, or the households have been expelled, and a more active land market is found in the Central Highlands. The richest households have given away half of the plots they have parted with, while the poorer households to a larger degree have been expelled.

Table 4.12: Modes of Parting with Plots

	Share of HHs who parted with land	Modes of parting with land						
		Exchanged	Sold	Gave	Expelled	Abandoned	Other	Total
Total 2012	9.6	2.8	15.3	46.0	25.5	5.3	5.1	2,700
Province								
Ha Tay	9.1	1.1	17.6	52.7	14.3	9.9	4.4	577
Lao Cai	7.4	0.0	25.0	37.5	18.7	0.0	18.7	107
Phu Tho	15.7	0.0	6.8	61.8	27.9	0.8	2.5	375
Lai Chau	3.0	0.0	7.7	7.7	69.2	0.0	15.4	133
Dien Bien	10.2	0.0	0.0	42.1	31.6	26.3	0.0	127
Nghe An	8.8	23.7	2.6	34.2	28.9	5.2	5.2	227
Quang Nam	9.1	4.3	2.8	35.2	49.3	7.0	1.4	338
Khanh Hoa	8.1	0.0	16.7	41.6	0.0	0.0	41.6	111
Dak Lak	12.8	0.0	43.8	50.0	3.1	0.0	3.1	164
Dak Nong	16.9	0.0	55.5	14.8	22.2	0.0	7.4	130
Lam Dong	9.2	0.0	22.2	44.4	22.2	0.0	11.1	76
Long An	4.2	0.0	28.0	56.0	4.0	12.0	0.0	335
Gender of HH head								
Female	10.6	0.0	22.7	37.1	35.0	1.0	4.1	567
Male	9.4	3.5	13.4	48.4	22.9	6.4	5.3	2,133
Food expenditure quintile								
Poorest	11.6	2.3	13.9	34.9	32.6	4.6	11.6	100
2nd poorest	9.4	0.0	18.5	35.8	29.3	9.8	6.5	100
Middle	10.8	7.7	13.5	29.8	37.5	5.8	5.8	100
2nd richest	12.4	0.0	7.8	62.0	24.1	3.4	2.6	100
Richest	11.0	6.9	23.7	53.5	14.9	0.9	0.0	100

N = 2,700 plots

The poorer households are also more likely to have abandoned their land compared to the richest households (4.6 percent and 0.9 percent respectively). Female-headed households are more likely to have sold their land than to have given it away. In addition, female-headed households are also more likely to have been expelled from their plot.

Table 4.13 illustrates the recipients of lost plots, split by the modes of parting with a plot. In terms of land given away or abandoned, most of the recipients are children or other relatives, but for land that is sold it is mostly to outsiders (such as neighbours and other persons).

In almost all cases of expelled plots the recipient has been the State. This is consistent with results in Khai et al. 2013.

Table 4.13: Recipients of Land (percent)

	Parent	Child	Sibling	Other relative	Neighbour	Prior tenant	Other person	State	Private organization	Other	Total
Total 2012	0.7	46.3	3.7	2.5	6.6	0.7	7.6	25.9	2.5	3.4	100
Exchanged	10.0	0.0	0.0	0.0	40.0	0.0	0.0	50.0	0.0	0.0	100
Sold	0.0	12.5	6.3	1.5	34.4	1.5	43.7	0.0	0.0	0.0	100
Gave away	0.1	91.6	3.5	2.9	0.5	0.0	0.0	0.5	0.0	0.0	100
Expelled	0.0	0.0	0.0	0.0	0.8	0.0	0.0	90.4	7.8	0.8	100
Abandoned	0.0	30.4	17.4	17.4	4.4	0.0	4.3	4.3	0.0	21.7	100
Other	0.0	9.1	4.5	0.0	0.0	9.1	18.2	9.1	9.1	40.9	100

4.6 Summary

In this chapter the characteristics of households' land holdings, including size, distribution, source of acquisition, and the role of the land market, titling of plots, restrictions on land use, and investment in land are discussed. Overall, the land market is more developed and active in the South, and land distribution is also more unequal in the Southern provinces compared to the North. The proportion of households that own no land has increased over the two-year period 2010 to 2012. However, when we compare landlessness and socioeconomic status, we see that richer households are more likely to own no agricultural land. This is an indication of rural development where richer households become less dependent on farming for their livelihood. We see a large discrepancy between the North and the South. Land fragmentation measured as number of plots owned and the size of each plots is more prevalent in the North. Additionally, households in the South are more likely to be landless. The North-western provinces of Lai Chau and Dien Bien have very thin land markets. In these provinces, transactions in the land market are rare and the percentage of plots that have a Red Book is the lowest among all the provinces surveyed.

There is a clear indication that richer households are more secure in terms of having a higher share of their plots registered with a LURC. Further, the statistics presented show that having a LURC is positively associated with longer-term investments, especially in irrigation. Additionally, a very large gap between investments on plots with and without a LURC is seen

among the poorest households. This is consistent with the view that land titling is important for investment. We observe a large drop in land-related investment between 2010 and 2012.

Significant differences are also observed between male- and female-headed households. The latter are more likely to be landless, have smaller landholdings, and are more likely to hold a LURC for their plots. At the same time they are less likely to invest in their plots. With respect to the land sales markets, male-headed households represent the most active participants. This suggests that female headed households may face more constraints and challenges in terms of participating in land markets.

Finally, the chapter also provides an overview of restrictions on crop choice and land use by the authorities. Overall, a large proportion of all plots in the sample are restricted so that they cannot be used for non-agricultural purposes. In the provinces of Quang Nam and Ha Tay a large proportion of households are required to grow rice all season on their plots. Yet, in the North a comparatively larger proportion of households are restricted in the sense that they are not free to select which crops they would like to grow on their plot.

References

Khai, L.D., Markussen, T., McCoy, S., Tarp., F. 2012. Access to Land. Market- and non-market land transactions in rural Vietnam, forthcoming in *Land Tenure Reform in Asia and Africa,* edited by Stein Holden, Kei Otsuka and Klaus Deininger, Palgrave-MacMillan.

Markussen, T., Tarp, F., Van den Broeck, K. 2011. The forgotten property rights: Evidence on land use rights in Vietnam, *World Development,* vol. 39, no. 5, pp. 839-850, 2011.

Ravallion, M., Van de Walle, D. 2008. Land in transition. Washington: The World Bank and Palgrave Macmillan.

CHAPTER 5: CROP PODUCTION AND COMMERCIALIZATION

In this chapter, we investigate the structure of households' involvement in crop production with a special focus on the important issue of commercialization. Commercialization is the process of increased market orientation, and is a complex and multidimensional phenomenon. It entails a switch from self-sufficiency of farming enterprises to a reliance on markets for purchase of inputs and for the sale of production. This switch from producing to buying what the household needs allows for more specialized production, which increases yields. We try to shed light on the issue from both the input and the output side.

An important parameter in the discussion of agricultural commercialization is the scale of production. It is certainly possible for small farmers to be commercially-oriented. But as household agricultural production increases, households will generally want to convert some of the additional production into other goods, producing a need for selling off part of the output.

To investigate the characteristics of households through the lens of commercialization, we have constructed a household production scale measure defined as the value of agricultural production in 2012. Where feasible, we split the sample of crop producers into five quintiles based on this measure.[14] We also analyse households' difficulties with getting access to inputs as well as with selling the output. Where the data allows, we compare with results from 2008 and 2010.

5.1 Output from Agriculture

The declining trend in the share of households that are growing crops, which was already observed from 2008 to 2010, continued from 2010 to 2012 with a decline of 3 percentage points. It is especially the very richest households who have moved out of crop production. The participation rate for the richest food expenditure quintile has dropped 9 percentage points over this four year period. In the poorest food expenditure quintile, there is a slight decrease in the frequency of households engaged in crop production of 1.4 percentage points.

Geographically, the decline in the share of households engaged in crop production is driven by sizable declines in the provinces of Phu Tho (8 percentage points), Quang Nam (8 percentage points) and Ha Tay (5 percentage points).[15] One possible explanation for the general decline in crop production is that the panel subsample that is re-interviewed every second year naturally gets older. While it is the case that households with older household heads are less

14 We use the nominal value of production in 2012 to create this measure. The alternative would be to deflate the nominal value with the regional CPI index. However, the regional CPI measures differences in prices of consumption baskets – and we are interested in the value of production. Deflating the nominal value of production with the CPI does not change results much and only 63 households change quintile when deflating.

15 In Khanh Hoa, a sharp drop is recorded between 2008 and 2010. This may partly be a result of the relatively low sample size in this province (71 observations).

frequently engaged in crop production (results not reported), it does not explain the drop in crop production that is observed: when looking at the full 2012 sample which also includes young households, the total involvement in crop production decreased even more. This is caused by the fact that for each cohort, the full sample has a lower rate of crop involvement.

The results indicate a gradual increase in the share of households relying on income from non-farm enterprises, or from livestock and aquaculture.

Table 5.1: Household Involvement in Crop Production (percent)

	2008	2010	2012	2012
	Panel sample	**Panel sample**	**Panel sample**	**Full Sample**
Total 2012	88.7	86.9	83.5	81.6
Province				
Ha Tay	88.4	82.6	77.8	77.3
Lao Cai	98.8	98.8	96.4	92.5
Phu Tho	93.4	92.1	84.5	82.8
Lai Chau	93.5	88.9	89.8	88.1
Dien Bien	97.0	98.0	97.0	96.9
Nghe An	81.5	84.7	85.7	84.6
Quang Nam	89.9	88.5	80.6	78.1
Khanh Hoa	78.9	64.9	73.2	71.8
Dak Lak	92.4	91.7	92.4	91.5
Dak Nong	94.6	91.5	89.4	84.6
Lam Dong	97.0	92.4	90.9	91.3
Long An	77.3	78.0	75.9	71.7
Gender of HH head				
Female	81.7	80.0	75.8	73.4
Male	90.6	88.8	85.6	83.7
Food expenditure quintile				
Poorest	94.4	91.8	93.0	92.7
2nd poorest	90.6	90.3	88.0	86.0
Middle	92.8	88.1	82.3	81.7
2nd richest	88.0	84.0	81.4	79.1
Richest	81.7	80.2	72.9	69.5

N 2012 panel=2,155; N 2012 full=2740; N 2010=2,156; N 2008=2,156

Female-headed households are around 10 percentage points less likely to be engaged in crop production than their male-headed counterparts. This is a slight increase from previous years where this difference was around 9 percentage points.

Part of the explanation for this difference is the fact that on average, female-headed households have older household heads and the households consist of fewer household members. However, other gender-related constraints, such as discrimination, may potentially also be contributing to this gap.

In Table 5.2, we look more closely at the production structure of crop growing households. Rice is still the most common crop in the sample: 81 percent of all farmers have at least some rice production. Following rice in popularity is maize (28 percent), fruit (26 percent) and vegetables (24 percent).

The crop production structure displays large geographical variation. A larger share of the households residing in the Northern provinces grows rice, often complemented with production of maize and cassava. In the south, households are less likely to grow rice, focusing relatively more on perennial crops such as fruits. The Central Highlands provinces have a strong focus on coffee production, complemented by fruit and cashew nuts as well as some rice and maize growing.

All crops listed in Table 5.2 except for sugar cane are cultivated more by male headed households. Rice and maize are both grown less by the very richest food expenditure quintile. Coffee is only grown in the relatively poor Central Highland provinces and coffee producers are more likely to be found in the highest production quintiles.

We see that households that are producing crops on the smallest and largest scales are both less likely to grow rice and maize than households in the three middle household production scale quintiles.

For small production scale households, the direction of causality is not clear. It could be that households with a low total production will be engaged in fewer forms of crop production or the other way around that households engaged in less crop production will have a low production. For the highest household production scale quintile, this finding is perhaps more puzzling. Part of the explanation lies in the fact that almost half of the highest production scale quintile are coffee growers, and that the Central Highland provinces have much lower rice participation shares.

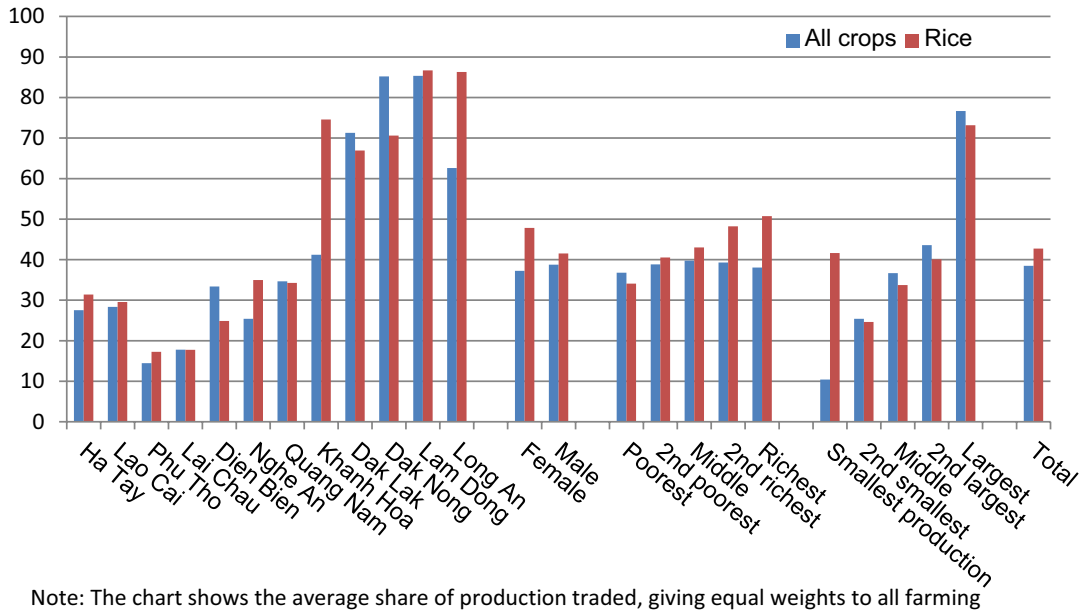
Table 5.2: Types of Crops Produced (percent of farming households)

	Rice	Maize	Pota-to	Sweet pota-to	Cassa-va	Pea-nuts	Soy bean	Vegeta-bles	Other annu-al	Fruit	Cof-fee	Tea	Co-coa	Ca-shew nuts	Sug-ar cane	Pep-per
Total 2012	80.7	27.5	1.0	1.5	12.7	7.3	4.5	24.3	5.5	26.1	10.9	3.0	0.1	2.6	1.3	1.9
Province																
Ha Tay	93.6	11.5	2.6	2.4	4.2	2.9	6.6	13.2	4.8	12.8	0.0	0.2	0.0	0.0	0.0	0.0
Lao Cai	91.9	70.7	3.0	1.0	30.3	5.1	30.3	75.8	10.1	16.2	1.0	6.1	0.0	0.0	0.0	0.0
Phu Tho	89.7	35.3	1.0	0.6	13.8	9.6	4.2	51.3	4.2	26.6	0.0	10.6	0.0	0.0	0.0	0.0
Lai Chau	97.5	79.0	0.8	0.0	38.7	3.4	3.4	6.7	1.7	10.1	0.0	4.2	0.0	0.0	0.0	0.0
Dien Bien	96.9	72.4	0.0	0.0	40.2	3.9	3.9	32.3	3.1	44.1	0.0	0.0	0.0	0.0	0.0	0.0
Nghe An	79.8	34.7	1.0	4.7	6.7	28.0	2.6	49.7	14.0	41.5	1.0	5.7	0.5	0.5	7.3	1.0
Quang Nam	90.9	15.5	0.0	3.8	10.2	16.3	0.8	7.6	9.5	8.3	0.0	0.0	0.0	0.4	0.0	0.0
Khanh Hoa	48.1	12.7	0.0	0.0	13.9	0.0	2.5	3.8	2.5	58.2	0.0	0.0	0.0	6.3	12.7	0.0
Dak Lak	55.6	31.1	0.7	0.0	14.6	0.7	4.0	14.6	2.0	41.1	63.6	0.7	0.7	12.6	2.0	14.6
Dak Nong	37.2	19.0	0.0	0.8	17.4	0.8	3.3	3.3	5.0	24.8	77.7	0.0	0.0	18.2	0.0	15.7
Lam Dong	24.7	9.6	0.0	0.0	1.4	0.0	0.0	8.2	2.7	11.0	69.9	13.7	0.0	12.3	0.0	0.0
Long An	77.8	0.8	0.0	0.0	0.0	2.9	0.0	20.2	2.9	45.7	0.0	0.0	0.0	0.0	0.4	0.0
Gender of HH head																
Female	75.7	17.9	0.2	1.2	9.5	5.5	2.4	22.9	3.3	26.0	7.2	1.7	0.0	2.1	1.4	1.9
Male	81.8	29.7	1.2	1.6	13.4	7.7	5.0	24.7	6.0	26.2	11.8	3.3	0.1	2.6	1.2	1.9
Food expenditure quintile																
Poorest	86.0	45.1	0.6	1.0	20.6	6.1	7.5	25.1	4.9	21.1	9.7	5.1	0.0	2.8	1.6	0.6
2nd poorest	84.6	31.4	0.0	2.1	15.6	6.6	4.1	20.5	5.8	27.1	9.6	1.9	0.0	2.8	0.9	1.1
Middle	79.9	24.4	0.9	1.6	8.6	6.1	3.4	23.7	5.6	24.4	14.4	2.7	0.0	3.2	1.6	2.5
2nd richest	76.1	16.9	2.1	1.4	8.0	10.1	3.3	26.0	6.1	29.5	11.5	2.3	0.0	2.3	1.2	2.3
Richest	74.5	14.9	1.6	1.6	8.5	8.2	4.0	26.6	5.3	29.8	9.6	2.4	0.5	1.6	1.1	3.7
Household production scale quintile																
Smallest pro-duction	62.4	15.5	0.2	0.0	5.0	3.7	1.7	25.1	2.8	30.1	0.0	1.1	0.0	0.4	0.0	0.2
2nd smallest	94.3	27.3	0.2	3.0	12.2	8.0	3.7	20.2	4.4	15.4	1.4	1.6	0.0	0.9	0.7	0.0
Middle	91.5	32.7	1.6	2.5	16.3	12.3	4.0	27.3	6.5	23.0	2.7	5.1	0.2	1.6	1.6	0.2
2nd largest	91.3	41.4	2.2	1.6	19.9	10.1	9.4	29.5	8.3	27.1	5.8	3.8	0.0	1.6	2.5	0.4
Largest	64.7	21.0	0.7	0.7	10.3	2.5	3.8	19.5	5.6	34.7	44.7	3.4	0.2	8.3	1.6	8.7

5.2 Trading Structure

We now turn to analysing what happens to the output after production. Figure 5.1 below shows how much of total output that was traded, i.e. either sold or bartered. In 2012, the average share of production that was traded was 38 percent of total output and 43 percent of rice production (note that this result is based on equal weighting of small and large producers, meaning that the share of aggregate output traded is significantly higher than 38 percent; see notes to Figure 5.1). The remainder was either consumed or stored. While it seems that richer households were not on average more commercially-oriented, the size of production matters for how much of production households trade, with larger producers trading more of their output. This is consistent with the discussion about determinants and effects of commercialization at the beginning of Chapter 5. For the highest production scale quintile, 77 percent of total output and 73 percent of rice output is traded. It is also worth noting that while households in the smallest production scale quintile only trade 10 percent of their total production, they trade 42 percent of their rice production – more than any other quintile except the highest. In production of rice, female headed households sell a large share of their production, but in total production male headed households sell a slightly greater share of their production.

Figure 5.1: Share of Traded Production (Sold or Bartered), percent



Note: The chart shows the average share of production traded, giving equal weights to all farming households, no matter how much they produce. Hence, the chart underestimates the share of *total* production which is traded (this share is about 62 percent for rice and 76 percent for all crops together).

As we saw in Table 5.2, less rice is grown in the southern provinces sampled in the survey, but from Figure 5.1 we see that larger shares of the rice production are traded, compared to the northern provinces. One contributing factor to this difference is the fact that farms in the Northern provinces are typically smaller. These households consume a larger part of their

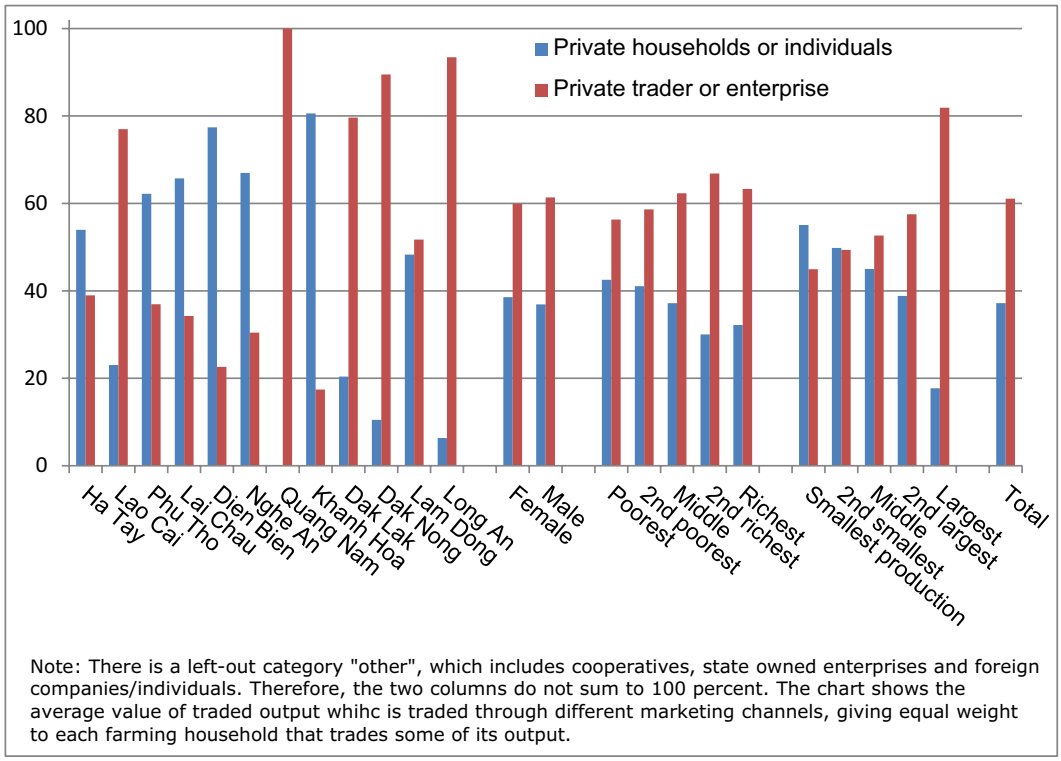
production, leading to lower traded shares. Furthermore, part of this difference can be due to commercial remoteness of households in the northern provinces. This issue will be analysed further in Section 5.4. For total production, the larger production of perennial crops which are primarily grown with trading in mind, including coffee, fruit and vegetables, in the southern provinces, account for at least part of the larger shares of traded output in the southern provinces. Richer households sold greater shares of their rice production, but for all crops, the picture is more mixed.

While there was a decrease in the overall share of traded output of all crops from 2008 to 2010 (43 percent to 37 percent), it rose again from 2010 to 2012 to 39 percent. This increase was driven by an increase in traded share for the three highest production scale quintiles. For the lowest quintile, the share of traded output fell quite dramatically from 27 percent in 2008 to 10 percent in 2012. Looking at the shares of aggregated output traded (results not reported in tables or figures), the share of total value of output that was traded was 69.7 percent in 2008. This share fell to 64.4 percent in 2010 corresponding to the fall in the household-weighted shares reported above. In 2012, the share was 70.7 percent. Thus, the drop in traded shares 2010 appears to have been temporary.

Farmers can sell their production through several different channels. Figure 5.2 shows how prevalent the different forms are, among households who trade at least some of their crop production. The two most common marketing channels are trading with other private households and trading to a private trader or enterprise. In some provinces, such as Long An, Quang Nam, and Lam Dong, almost the entirety of traded production is sold to private traders. However, in many of the northern provinces in the survey, a larger share of the traded output is sold to private households or individuals. One possible cause of this is commercial remoteness of farmers in the northern provinces which decreases the profitability of trade. Furthermore, private traders and enterprises typically deal with larger producers more common in the southern provinces, as they can supply greater quantities. Some of these traders also supply harvesting services.

Poor households and small operations are more focused on selling to private households than richer households and larger operations. The larger the scale of production, the larger the share of traded production that is sold to private traders and/or enterprises. A possible explanation is that larger producers prefer to trade with buyers who can buy larger amounts of produce which is typical of private traders and/or enterprises who buy in order to sell the produce on instead of private households or individuals who more often will buy for own consumption purposes. At the same time, larger and richer producers are better equipped to meet quality and standardization norms required by traders and other agents capable of buying in larger quantities.

Figure 5.2: Percentage of Traders Using Different Marketing Channels



Note: There is a left-out category "other", which includes cooperatives, state owned enterprises and foreign companies/individuals. Therefore, the two columns do not sum to 100 percent. The chart shows the average value of traded output whihc is traded through different marketing channels, giving equal weight to each farming household that trades some of its output.

5.3 Input Use in Crop Production

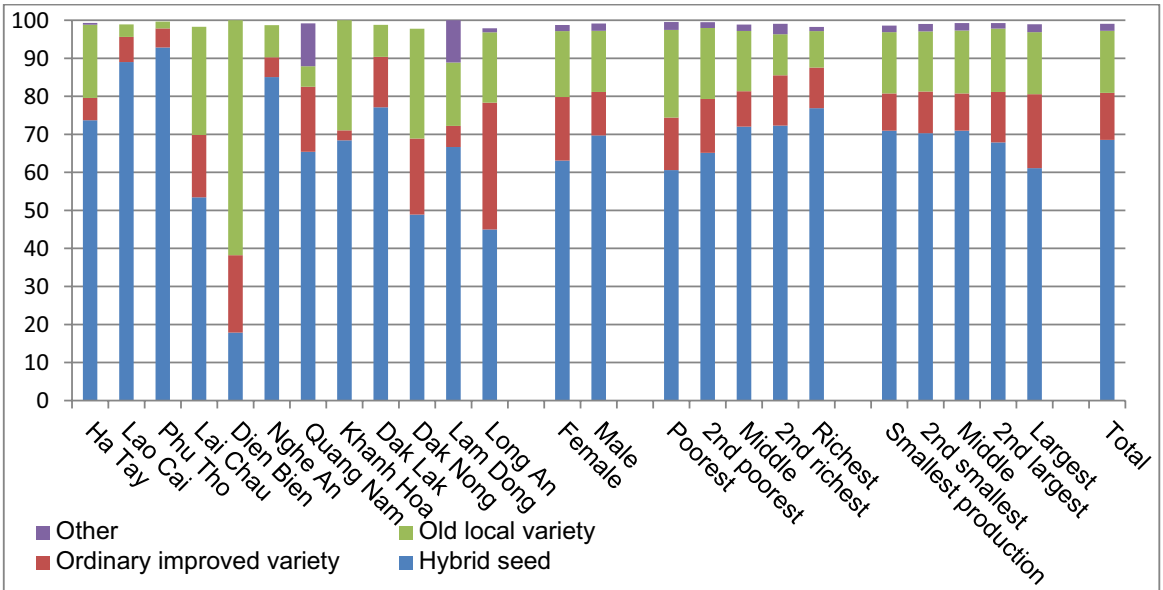
As described in Section 5.1, the process of commercialization is not only one of selling output on the market. It also involves the purchase of industrially produced inputs as well as using the labour market to hire labour, if needed. Using marketed inputs allows the household to lessen some of the constraints faced in increasing production. It is therefore an integral part of the commercialization of agriculture.

Table 5.3 shows how many of the farming households in the sample are using three different kinds of fertilizer (chemical, self-provided organic, and bought organic fertilizer) as well as hired labour. In many provinces, nearly 100 percent of farmers are using chemical fertilizers. The lowest uptake is in Khanh Hoa where 70 percent of farming households use chemical fertilizers. Fewer households are using either of the two kinds of organic fertilizer, but there is greater variation between provinces. Understanding these differences in fertilizer use and their effect on output volume would be of interest. More male-headed households use fertilizer than female headed households. While the differences in fertilizer use for male and female-headed households are quite small for chemical fertilizers (three percentage points) and bought organic fertilizer (four percentage points), a bigger difference is found in usage of self-provided organic fertilizer, (11 percentage points). Richer households tend to use the two types of bought fertilizer more frequently. There is a high degree of variation in uptake shares when looking at household production scale quintiles: the smallest producers use less of all

three kinds of fertilizer, and the largest producers use less self-provided fertilizer, probably indicating that when production increases, it is no longer viable to rely on own production of fertilizer.

There is also significant province level variation in the share of farming households hiring labour: the provinces Lai Chau, Dien Bien, and Khanh Hoa have the lowest rates of hiring labour at or below 40 percent of farming households; on the other hand, of the surveyed farmers in Lao Cai, 87 percent hires labour. Fewer of the households in the poorest food expenditure quintile hire labour. This can be explained by both financial constraints and small production scales for the poorest households. While there are no differences across sex of household head, households with larger household operations are more likely to hire labour: as production increases, the household cannot supply the needed amount of labour, and must instead hire labour.

Figure 5.3: Use of Rice Seed by Type (percent)



Note: The figure shows the share of rice growing households who normally use different types of seed. The quantity of rice produced using different types of seed may differ from this. Some columns sum to slightly less than 100 percent as a few households were not able to answer the question.

We now examine inputs in rice production in more detail. As Table 5.3 shows, rice is by far the most commonly grown crop and is therefore worth studying in detail. Figure 5.3 shows which types of rice seed rice growers normally use. The choice of seed is affected by cost, expected yield, as well as availability. While hybrid seeds are somewhat more costly than local seeds, there is evidence that hybrid seeds on average increase yields by 15-20 percent.[16] Hybrid seeds, either imported from China or produced in Vietnam, is the most common type of seed. It is used by 69 percent of all rice growers. There are, however, variations between provinces.

16 See, for instance, "Hybrid Rice for Food Security", a FAO Factsheet published in 2004.

In Dien Bien, only 18 percent use hybrid seeds and 62 percent use an old local variety. This is partly due to the fact that northern upland provinces do not have as much water as other parts of the country. In this climate hybrid seeds do not produce the same gain in yields as in water-abundant areas. Also, many of the northern upland farmers grow sweet rice instead of normal rice. It is perhaps surprising that very few farmers in Long An use hybrid seed as farmers in Long An appear quite commercialized in other aspects. However, more of the difference can be attributed to increased uptake of an improved local variety. Dak Nong also has relatively low uptake of hybrid seed and relatively high uptake of an improved local variety.

Table 5.3: Types of Input Used (percent)

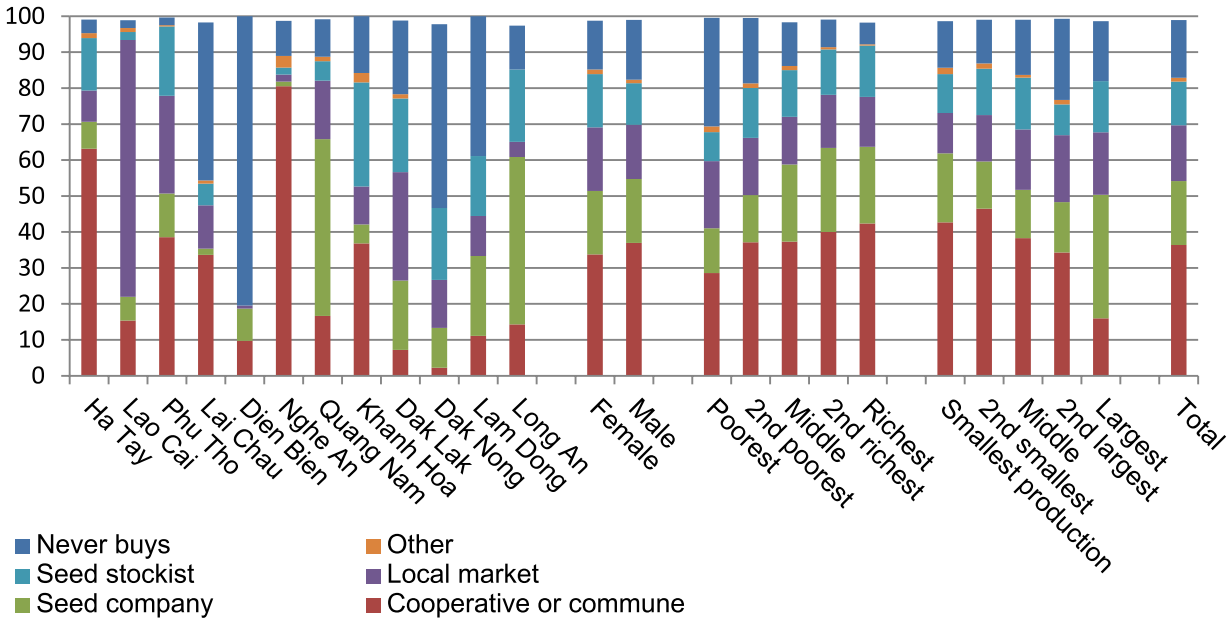
	Chemical fertilizers	Organic fertilizer (self-provided)	Organic fertilizer (bought)	Hired labour
Total 2012	92.8	39.6	23.1	65.7
By province				
Ha Tay	98.2	35.0	39.2	65.2
Lao Cai	99.0	86.9	3.0	86.9
Phu Tho	97.1	72.1	17.3	75.3
Lai Chau	71.4	12.6	1.7	37.8
Dien Bien	81.1	48.0	0.8	39.4
Nghe An	88.1	77.7	21.2	60.1
Quang Nam	97.3	29.9	26.5	73.9
Khanh Hoa	69.6	10.1	24.1	35.4
Dak Lak	98.0	23.2	13.2	76.8
Dak Nong	98.3	5.8	16.5	62.0
Lam Dong	98.6	20.5	56.2	68.5
Long An	89.7	18.9	28.0	72.4
Gender of HH Head				
Female	90.2	30.5	26.5	66.1
Male	93.4	41.7	22.4	65.6
Food expenditure quintile				
Poorest	88.5	42.7	12.8	57.5
2nd poorest	93.6	40.6	19.4	65.6
Middle	95.0	42.9	25.1	70.7
2nd richest	95.1	38.9	27.9	67.9
Richest	92.6	31.1	34.3	68.1
Household production scale quintile				
Smallest production	78.8	27.5	17.0	36.0
2nd smallest	96.6	42.9	23.2	66.1
Middle	95.7	51.5	24.6	71.6
2nd largest	94.0	50.3	23.5	70.2
Largest	99.3	26.4	27.5	85.2
Total 2012 (panel sample)	93.8	41.5	23.5	68.3
Total 2010 (panel sample)	93.3	45.3	11.6	50.2
Total 2008 (panel sample)	94.4	44.3	10.2	47.6

Notes: Except if noted otherwise, all results are from the 2012 full sample

N 2012 full=2,135; N 2012 panel=1,797; N 2010 panel=1,843; N 2008 panel=1,886

Slightly more female-headed households use an ordinary improved variety compared to male-headed households. There is a slight tendency that fewer poor households use hybrid seeds. Instead, poor households are more prone to using old local varieties. Turning to the production scale quintiles, there are slightly fewer in the larger quintiles that use hybrid seeds. While this may seem puzzling, a contributing explanation to this is that the figure is produced by giving equal weights to all rice growing households, no matter the size of the rice production. Therefore, large producers of other crops who produce a little rice on the side will show up in the largest production scale quintile, even though they may not be as likely to take up hybrid seed as households whose main activity is rice production.

Figure 5.4: Source for Rice Seed Procurement (percent)

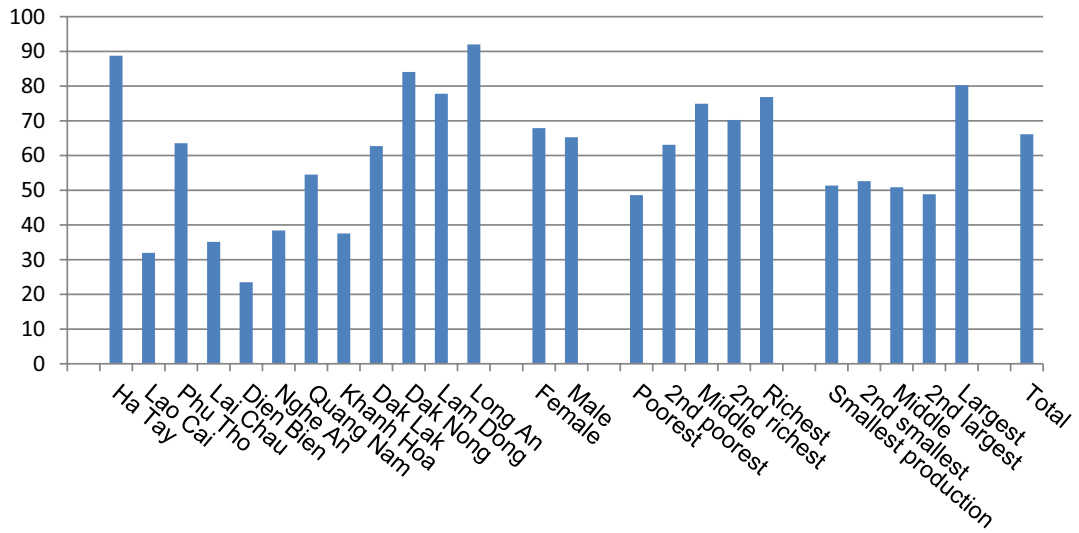


Note: The figure shows where rice growing households normally buys their seed. The quantity of rice produced by purchasing rice seed from different sources may differ from this. Some columns sum to slightly less than 100 percent as a few rice growing households were not able to answer the question.

Figure 5.4 shows where rice farmers usually purchase their seeds. The largest share, 36 percent, of rice growers usually gets their rice seeds from cooperatives or communes. This is followed by seed company (18 percent) and local market (16 percent). Around 15 percent of rice growers never buy seeds. In Dien Bien 81 percent of rice growers never buy seeds, while this Figure is 51 percent in Lam Dong. This partly explains the lack of hybrid seed use in these provinces that was noted in Figure 5.3 above. However, in the province of Long An, where uptake of hybrid seed also was quite low, this is not the case. Here, a large share of rice producers purchase seed from seed companies (47 percent). Fewer households with large crop operations purchase seeds from cooperatives and communes; instead, they purchase from seed companies.

Figure 5.5 shows the percentage of farming land that is irrigated. In 2012, an average of 65.1 percent of the total agriculture land of surveyed provinces is irrigated. At the province level, there are large differences between Delta provinces (Ha Tay and Long An) and other provinces. An average of about 90 percent of total agricultural land in the delta provinces is irrigated. Due to production of high value agricultural products that require irrigation, such as coffee, rubber and pepper, the Central Highland provinces (Dak Lak, Dak Nong, and Lam Dong) have a high rate of irrigation (62.7 percent to 84.1 percent). In the Northern Highland provinces (Lao Cai, Lai Chau, and Dien Bien), in contrast, less than 35.1 percent of agricultural land is irrigated. Nghe An, Quang Nam, and Khanh Hoa have irrigation rates of 38.4, 54.5 and 37.5 percent, respectively.

Figure 5.5: Irrigated Land (percent)

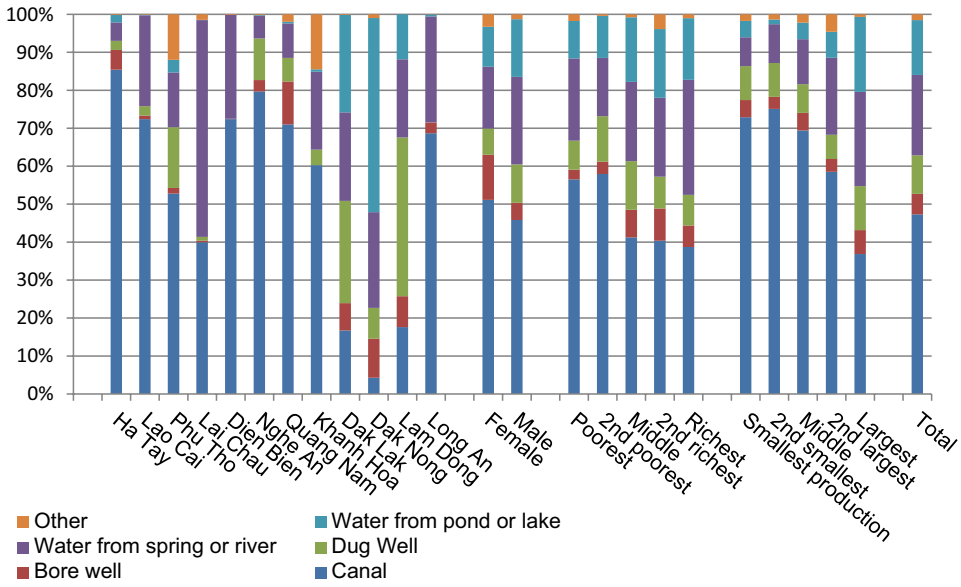


There is only a slight difference between male-headed households and female-headed households, but there is a clear trend in food expenditure quintile. Richer households have higher irrigation rates than poorer ones: 77 percent of the land of the richest group is irrigated, while this number for the poorest group is only 49 percent. Looking at the production scale, we can see that the highest quintile has a much higher irrigation rate, around 80 percent, while the differences between the other quintiles are much smaller.

Figure 5.6 presents detailed information on households have sources of irrigation. The main irrigation sources are water from canal, bore well, dug well, spring, river and pond or lake. We observe large differences in irrigation structure between provinces, but there is only a small difference between male and female household head or food expenditure quintiles. In general 48 percent of irrigated agricultural land receives water from canals, 22 percent is irrigated by water from springs and rivers, 15 percent from ponds or lakes, 10 percent from dug wells, 5 percent from bore wells and 1 percent from other sources. In most provinces, water from canals is the most important irrigation source, except for provinces in the Central Highlands.

The most popular irrigation source in this area is water from springs, rivers, ponds or lakes. Irrigation from springs and rivers is also common in the Northern Highlands.

Figure 5.6: Household Irrigation



The irrigation structure is different between household production quintiles. The larger the household, the less canal water and more spring/river water they use. This is because the largest production scale households are farms in Central Highland or Mekong River Delta, households in Central Highland take water from rivers and springs which run along the valleys to water their perennial crops, while farmers in Mekong River Delta tend to use water from canals.

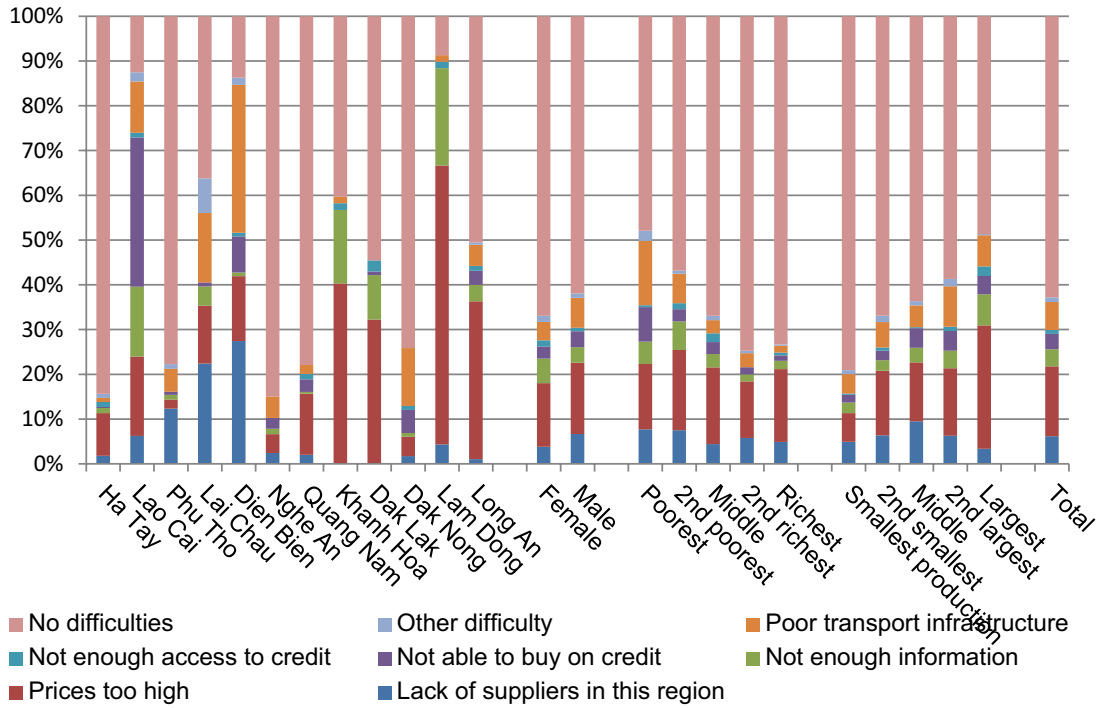
5.4 Difficulties Faced Before and After Production

Figure 5.7 shows the composition of difficulties that crop-growing household have regarding access to inputs.[17] Difficulties depend much on the characteristics of provinces. There are only small differences between households disaggregated by the gender of the household head as well as by food expenditure quintile. Households in lowland provinces have less difficulties than households other provinces. In particular, in the lowland provinces of Ha Tay and Nghe An, nearly 85 percent of respondents state that they do not have any difficulties in relation to accessing inputs. Due to the mountainous terrain, farmers from Lai Chau, Dien Bien, Lao Cai, and Dak Nong have access to less developed transportation infrastructure than farmers in other areas. This leads to trouble finding a supplier. Farmers in Lam Dong, Khanh Hoa, Long

17 Households were allowed to state only the *most* important difficulty they face. For example, even if only six percent mention poor transport infrastructure as the most important difficulty in terms of getting access to inputs, a higher share of households may experience difficulties related to infrastructure, but not rate it as their most important difficulty.

An, and Dak Lak have to buy inputs at a high price. 21.7 percent of household in Lam Dong, 18.6 percent in Khanh Hoa and 15.2 percent in Lao Cai state inadequate access to information is their most important from in terms of obtaining inputs. It is noteworthy that few farmers report low access to credit as their most important problem, although the province of Lao Cai is an exception in this respect.

Figure 5.7: Difficulties in Accessing Inputs (percent)

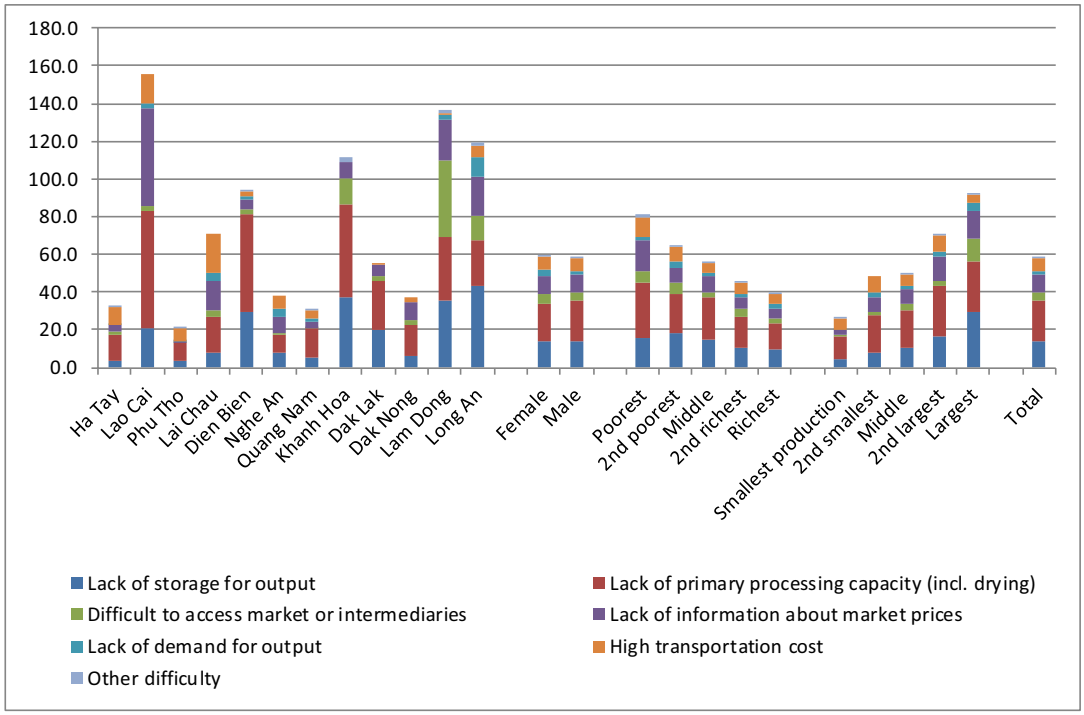


Richer households report fewer difficulties than poor. Poorer households are often located in more remote areas and therefore transportation infrastructure, the ability to buy on credit, information shortages and high input prices are their main constraints. Especially in Lao Cai, not being able to buy on credit is a substantial issue with more than 30 percent of farmers reporting this as a problem. Surprisingly, we find that households with large production scales have more difficulties than smaller ones. One possible explanation is that high prices of inputs, lack of information, inability to buy on credit as well as access to credit play a larger role for larger, commercialized farms than for smaller, more self-reliant units.

The VARHS not only collects data on difficulties in relation to accessing inputs, but also on problems related to the process of selling output. In general, 64.4 percent of the households do not report any difficulties with selling their output. Figure 5.8 shows that 21.3 percent of households report lack of primary processing capacity (including), 10.3 percent lack storage for output, 5.5 percent lack information about market prices, 3.4 percent have to pay high transportation cost, 2 percent have difficult access market or intermediaries and 1.2 percent household think that low demand for output is their main difficulty. The biggest problems for farmers in Long An, Khanh Hoa, Dien Bien, and Lam Dong are lack of storage for their inputs,

while primary processing capacity is the biggest problem in Dien Bien and in Lam Dong. Here, 21.7 percent of household have problems accessing markets or intermediaries. Although Lao Cai, Lai Chau, and Dien Bien are all located in Northern Highland, only farmers in Lai Chau report high transportation costs as the most common constraint (18.8 percent).

Figure 5.8: Post-Harvest Difficulties (percent)

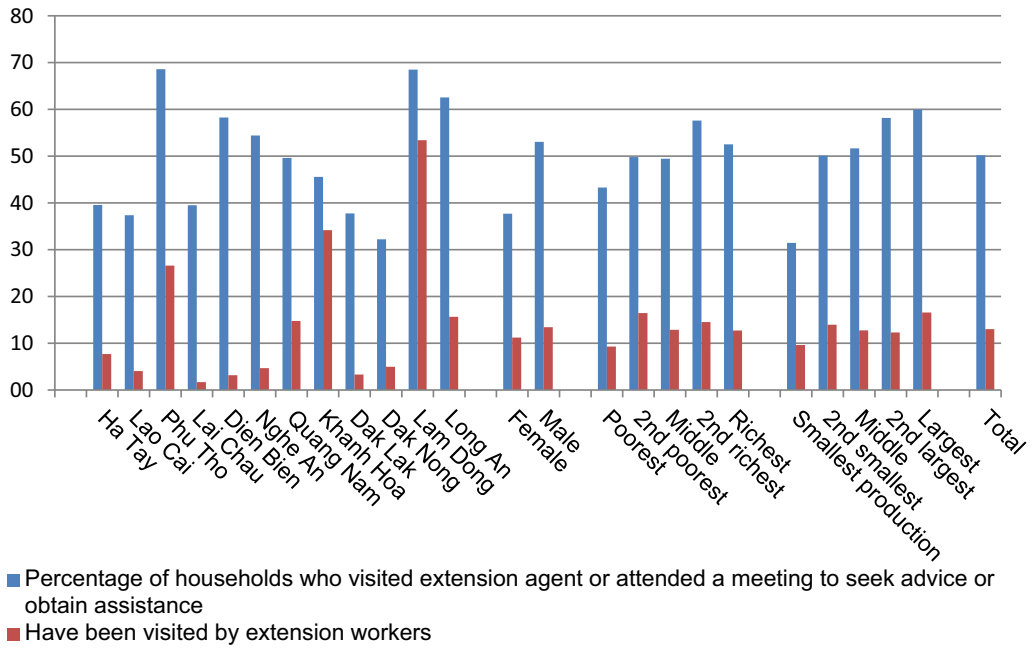


When looking at food expenditure quintiles and production scale quintiles, we find that larger households and poorer households more often face difficulties after production. For large households, this is largely driven by a larger share of households lacking storage for output as well as primary processing capacity. The very largest households also often have difficulties accessing markets or intermediaries. On the other hand, the problems of the poorest households are more often related to lack of information about market prices as well as lack of primary processing capacity. A total of 75 percent of the richest group do not have any difficulties selling their outputs, while only 50.5 percent of the poorest group do not have any trouble. There is almost no difference in reported constraints across male and female household heads.

Many studies have shown that extension services have a positive effect on agricultural productivity. Figure 5.9 shows the percentage of households who visited an agricultural extension agent, attended a meeting or had one or more visits by extension staff. In 2012, 50.1 percent of the household have visited an agricultural extension agent or attended a meeting. Phu Tho has the highest rate with 68.6 percent and Lam Dong has the second highest of 68.5 percent. Although located in the same region as Lam Dong, Dak Nong, and

Dak Lak have much lower rates of visits to agricultural extension services compared to Lam Dong. In 2012, less than 40 percent of surveyed households of these two provinces visited an agricultural extension service, and less than 5 percent of them were visited by an extension worker. Male-headed households are more likely to visit extension agents or join meetings. There is no clear trend about extension between households with different food expenditure quintiles, except for the fact that the very poorest households have the least access to extension. However, there is a clear trend in production scale quintile: larger households visit extension agents and join meetings more often, and extension workers visit large scale producers more often than small ones.

Figure 5.9: Households Visiting or Visited by Extension Workers (percent)



5.5 Summary

This chapter presented statistics related to crop production. We discussed the production structure as well as difficulties faced by farmers on the input side as well as the output side. Commercialization, understood as the degree to which farmers interact with markets, has been discussed throughout. Here, we summarize the findings.

In general, the degree of commercialization depends on the type of crops grown. For example, for coffee farmers in the Central Highlands, the goal is to sell the coffee on the market and use the money to satisfy consumption needs. Over 80 percent of households in the survey produce at least some rice, but around 55 percent of these households do not sell any of the rice they produce. Instead, it is used for own consumption. While households in general became a little less commercialized in terms of the share of output that was traded from 2008 to 2010, this share rose again from 2010 to 2012.

In general, it is the richer, larger, and the male-headed households who are more commercialized. Among the surveyed provinces, there are also noteworthy differences. The northern provinces are in general less commercially oriented than the southern provinces: they sell a smaller share of their output on the market and fewer households use hybrid seeds. This is especially the case for farmers in Dien Bien and Lai Chau. Here, fewer farmers use the labour market to hire labour, and it is more common to not buy additional fertilizer, except for what the farmer can produce.

From the survey, it is possible to point to some of the reasons for the lower degree of commercialization in the north, namely constraints faced when acquiring inputs as well as when trying to sell the output after production. In some northern provinces, poor transport infrastructure seems to play a role for many farmers. In others, lack of credit to buy inputs is an important factor. Lack of suppliers of required inputs is exclusively a northern problem. Turning to post-production difficulties, lack of primary processing capability, high transport costs and lack of information about market prices are the most frequently reported constraints faced, though not exclusively by northern households.

A much higher percentage of households visit an extension agent than receive a visit by an extension worker. There is room for expanding these programmes, especially for the poorest and smallest farmers who currently use these services relatively little.

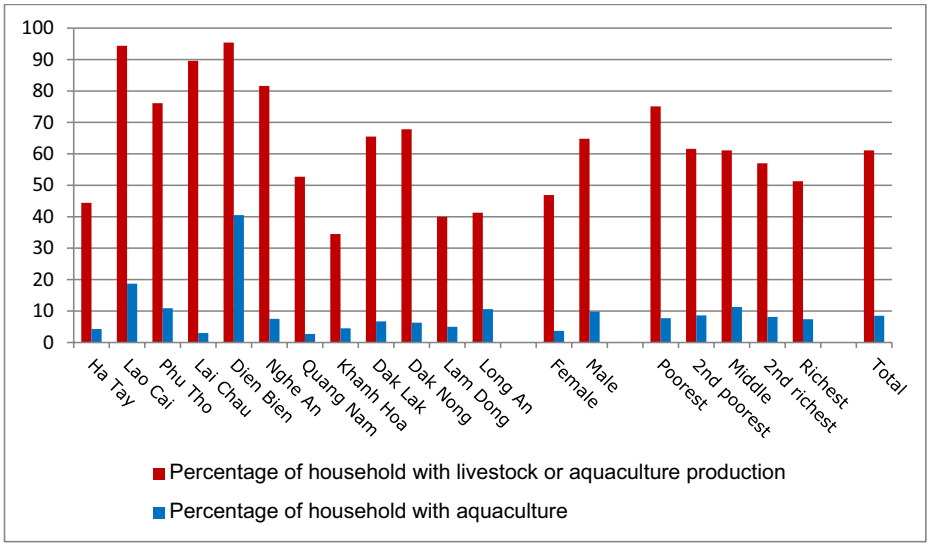
CHAPTER 6: LIVESTOCK PRODUCTION

This chapter presents information on households' livestock and aquaculture production. We discuss households' involvement in livestock production, production scale, use of vaccination, use of feed, and other inputs. Livestock production refers to cows/bulls, buffalo, horses/ponies, pigs, sheep/goats, and poultry (chicken/duck/quail). As the number of observations of households raising horses/ponies and sheep/goats is few, we mainly present data on cows/bulls, buffalo, pigs and poultry.

6.1 Prevalence and Scale of Livestock Operations

Figure 6.1 shows households' involvement in livestock or aquaculture production in 2012. Overall, 61.1 percent of the surveyed households have livestock or aquaculture production of which 8.5 percent of household have aquaculture production. Lao Cai, Lai Chau, Dien Bien, and Nghe An have the highest percentage of household who have livestock or aquaculture, and are the poorest among the 12 provinces surveyed in 2012. Most households in this area are agricultural households, and livestock and aquaculture production in these provinces is mainly small-scale and used for household consumption. In the richer provinces of Ha Tay and Long An, households are less likely to have livestock or aquaculture production. This is likely due to a smaller area of land and more opportunities to engage in non-agricultural activities. However, these two provinces have the most commercial farms in the survey sample as the later figures and tables in the chapter demonstrate.

Figure 6.1 Households with Livestock or Aquaculture



N = 2,741

Nearly 65 percent of male-headed households have livestock or aquaculture production compared to almost 47 percent of female-headed households. With respect to food expenditure quintile, the figure shows a clear trend. The richer households are less involved in livestock production compared to the poorer households. Data from Chapter 2 shows that richer households tend to move out of agriculture as they become richer. The proportion of agricultural income in total income decreases, so the richest households end up having the lowest share of livestock production.

Table 6.1 displays detailed information on livestock production. The table shows the percentage of household who have livestock broken down by type of livestock. The most popular kind of livestock is poultry, likely because they are easy to raise as farmers can feed them with leftover food, rice, and vegetables and use them for their own consumption or for trading. The second most common kind of livestock is pigs, especially in the Northern provinces. Lao Cai, Lai Chau, and Dien Bien have the highest share of households that raise pigs, with a percentage ranging from between 75 to 85 percent. Farmers in the Northern provinces often raise local-breed pig with a life cycle of about one year. The pigs are mainly fed by scavenging and used for own consumption, for instance during special events. In the lowland area the majority of farmers raise exotic or cross-breed pigs.

Table 6.1 Households with Livestock (percent)

	Cow/bull	Buffalo	Horse, Pony	Pig	Sheep, Goats	Chicken, Duck, Quail	Other
Total 2012	11.1	14.4	0.2	32.4	1.2	51.4	3.0
Province							
Ha Tay	7.0	1.7	(.)	19.4	(.)	36.4	1.5
Lao Cai	4.7	59.8	3.7	81.3	2.8	85.1	28.0
Phu Tho	10.9	13.5	(.)	44.8	0.3	65.3	2.7
Lai Chau	4.4	58.5	(.)	75.6	1.5	84.4	3.0
Dien Bien	12.2	65.7	(.)	81.7	6.9	87.8	11.5
Nghe An	28.5	22.4	(.)	34.7	3.1	75.4	0.9
Quang Nam	16.0	10.4	(.)	30.8	(.)	31.1	0.3
Khanh Hoa	8.2	(.)	(.)	5.5	(.)	27.3	0.0
Dak Lak	11.5	5.5	(.)	29.1	1.2	60.6	0.6
Dak Nong	8.4	4.2	(.)	19.6	2.8	63.6	2.1
Lam Dong	6.3	3.8	(.)	11.3	1.3	25.0	3.8
Long An	9.1	0.3	0.3	10.0	0.9	32.5	1.2
Gender of HH head							
Female	6	4.4	0.2	19.3	0.5	39.8	2.1
Male	12.4	17.1	0.2	35.8	1.3	54.4	3.2
Food expenditure quintile							
Poorest	13.2	32.1	0.7	47.3	2.4	62.8	4.8
2nd poorest	12.5	16.4	0	34.9	1.1	49.8	3.1
Middle	14.6	11.3	0	27.1	1.5	51.3	3.3
2nd richest	9.3	8.5	0	29.8	0.7	47.8	2
Richest	6.5	4.1	0.2	23.2	0.2	45.6	1.7

N=2,741

Raising buffalo is also quite popular. The buffalo are used as draft animals. The other kinds of livestock such as cow, bull, horse, pony, sheep, and goat are all relatively uncommon. Less than 10 percent of households raise these kind of livestock.

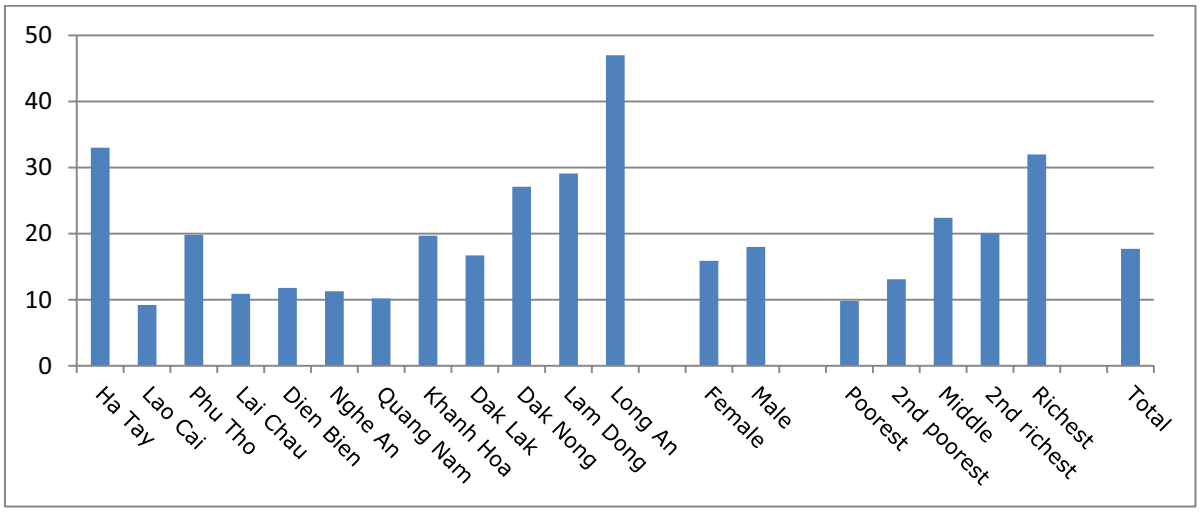
Again we see that male-headed households and poorer households participate more in livestock production compared to female-headed households and richer households. In addition, the table shows that pig and poultry are the two main types of livestock among the surveyed households.

Consequently, in the remainder of this chapter we will look more closely into pig and poultry production including production scale, commercialization level, and vaccination of the two types of livestock.

Figure 6.2 and 6.3 present the average number of pig and poultry among the households who raise these livestock. Long An and Ha Tay are the provinces with the largest pig production scale with an average number of pigs per household of 47 and 33, respectively.

Long An and Ha Tay are both located in the lowland area and close to large economic centres. The majority of pigs in these two provinces are raised on commercial farms. Lao Cai, Lai Chau, Dien Bien, Nghe An, and Quang Nam are the provinces with the smallest production scale of just about 10 pigs per household.

Figure 6.2: Average Number of Pigs per Household



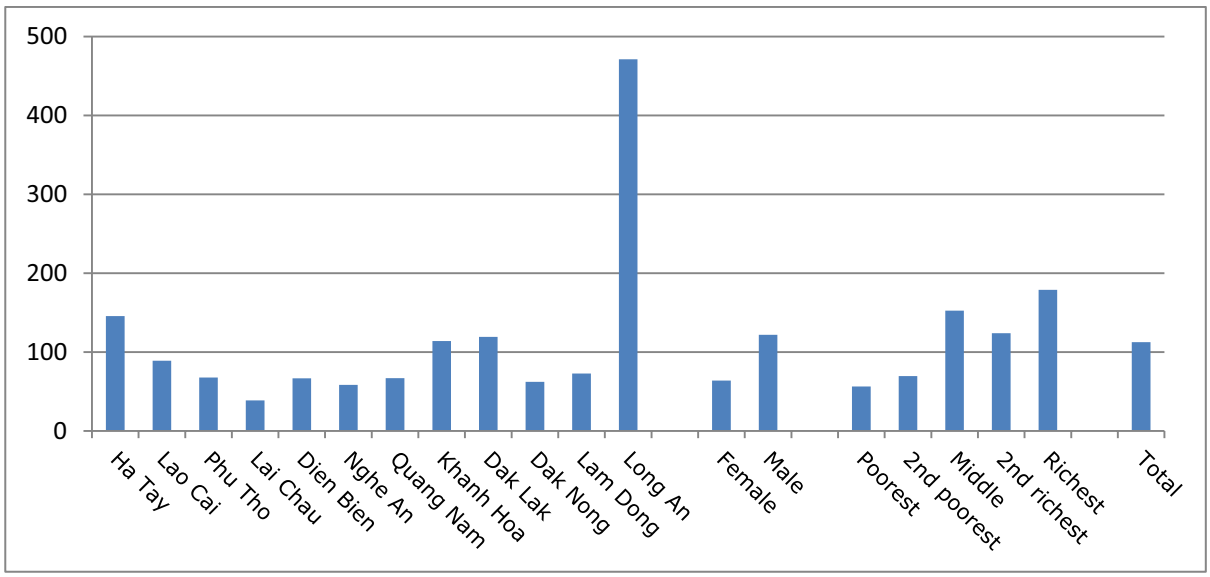
N = 1,505

On average, male-headed household have 18 pigs which is 2.1 more pigs than female-headed households. The richest group have 32 pigs per household while the poorest households have just 9.8 pigs.

Figure 6.3 shows a very high proportion of poultry production in Long An. The average scale is 471 poultry head in the province. This is more than three times higher than in Ha Tay - the

province with the second largest scale and more than 12 times higher than in Lai Chau - the province with smallest production scale. Richer households tend to have a larger production scale except for the second richest group.

Figure 6.3: Average Number of Poultry per Household



N =2,122

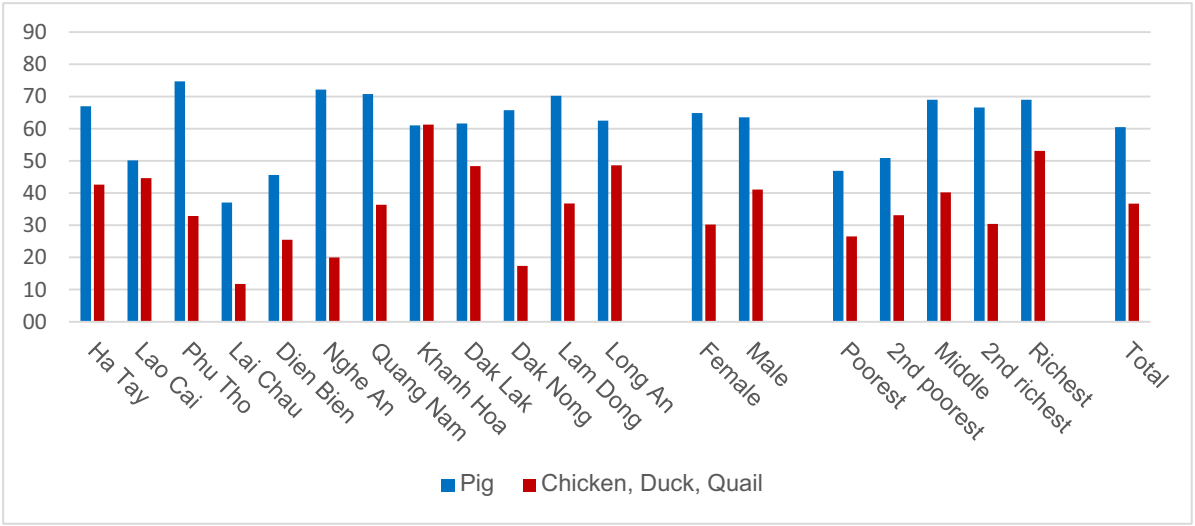
6.2 Commercialization of Livestock Production

We next turn to the commercialization level of households' livestock production. In the VARHS 2012 report we use the percentage of livestock traded (sold or bartered) as a share of total livestock to measure the level of commercialization.

Figure 6.4 shows the number of livestock that is traded (sold or battered) out of the total number of livestock. Overall, 60.5 percent of pigs and 36.7 percent of poultry are sold or bartered. As we can see in Figure 6.4, the Northern mountainous provinces including: Lao Cai, Lai Chau, and Dien Bien have the lowest commercialization level of pig production, while Phu Tho, Nghe An, Quang Nam, and Lam Dong have the highest level, with more than 70 percent of the production being used for commercial purposes.

For poultry, Lai Chau has the lowest level of commercialization with just 11.8 percent being sold or bartered. Dak Nong has the second lowest level (17.4 percent). Khanh Hoa is the most commercialized province in terms of poultry production with more than 60 percent of all chicken/duck/quail sold or bartered.

Figure 6.4 : Livestock Traded (Sold or Bartered, percent)



N: Pig = 887, Chicken/Duck/Quai = 1,407

Figure 6.4 shows a small (1.3 percentage point) difference between male-headed households and female-headed households in pig production, but the difference in poultry production is quite substantial (10.9 percentage points). In both pig and poultry production, the richest households have the highest level of commercialization. It should be noted that the VARHS report's measure of commercialization provides a difference between rice production and livestock production. Poor households may have to sell off more of their livestock due to food security concerns, thus appearing to have a higher level of commercialization than richer ones, explaining why the trend for the poorest and richest groups is quite clear, while the difference across the other socio-economic groups is less clear.

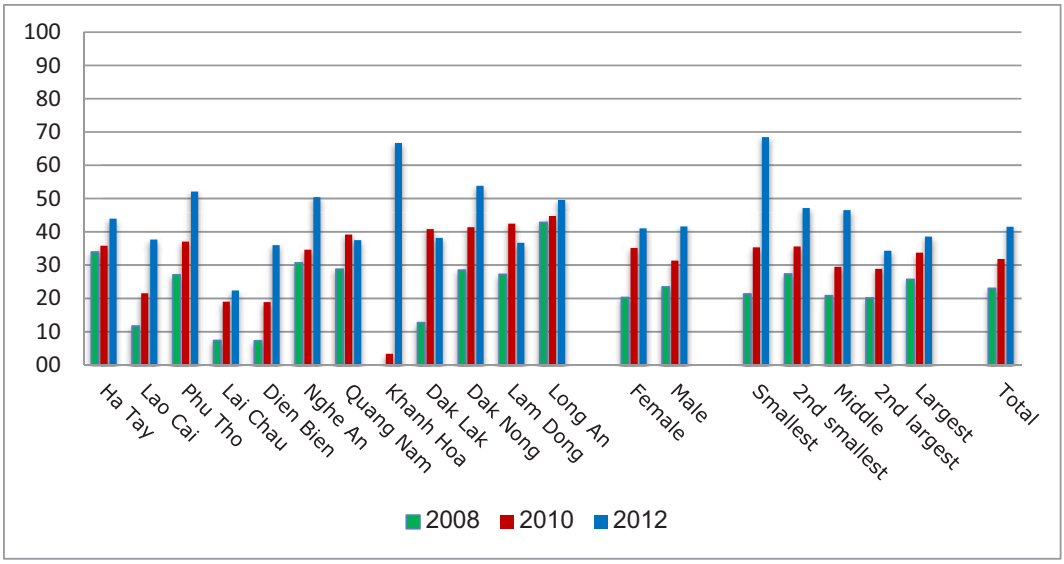
As household production becomes more commercialized, the use of inputs changes in terms of vaccination, feed, labour, extension services, and other inputs. One objective of this chapter is to investigate the difference in input choices as livestock production expands. We divide households into different production scale quintiles based on the total income from livestock production. The first group has the smallest income from livestock production and the fifth group has the highest income.

6.3 Vaccinations

In Figure 6.5 and Figure 6.6 we present the vaccination rate over the period 2008 to 2012 for the two main livestock types (pigs and poultry). There has been a statistically significant increase in the vaccination of pigs (from 23 percent to 41.5 percent) across all production quintiles. Quang Nam, Dak Lak, and Lam Dong do, however, show a slight downward trend in the 2010 to 2012 period. In 2005, the Ministry of Agricultural and Rural Development issued Decision 63/2005/QĐ-BNN. The Decision mentioned that all livestock were to be vaccinated with seven types of vaccine. But not until 2008 did the vaccination of livestock change. The

changes in 2008 occurred due to among other things outbreaks of Foot and Mouth and Blue Ear Diseases which caused a lot of death in livestock. Further, the issuance of instruction 2349/CT-BNN-TY established a network of quarantine stations. The commercialization process also plays an important role in the increase of the vaccination rate: at larger production scales, a single infection can spread, making inoculation a more worthwhile investment.

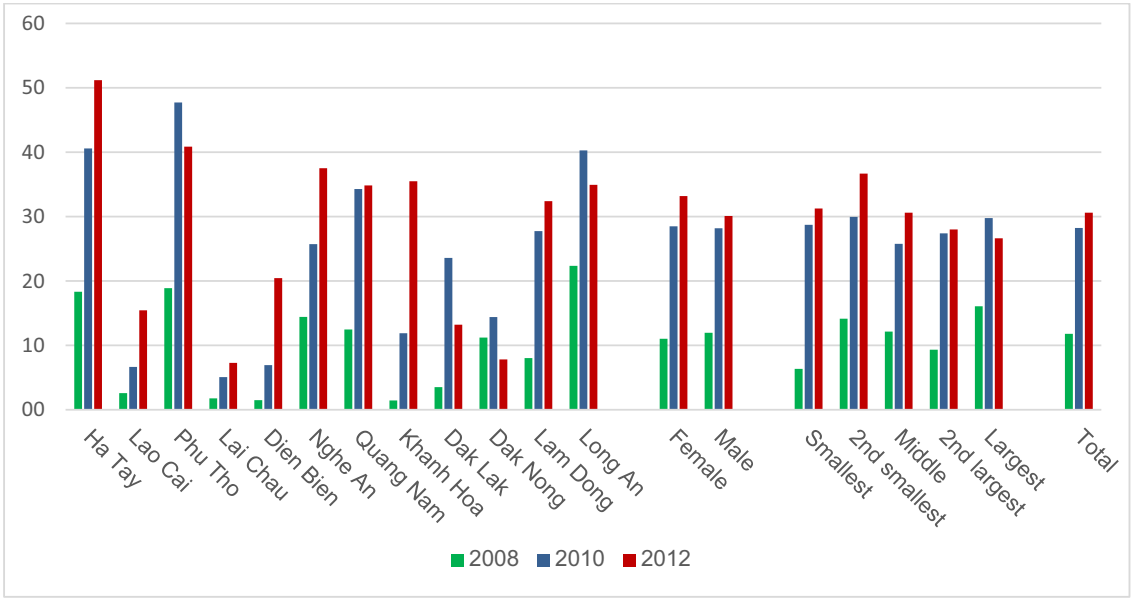
Figure 6.5: Pigs Vaccinated in 2008, 2010 and 2012 (percent)



N 2008 = 792, N 2010 = 765 , N 2012 = 760

Figure 6.6 demonstrates that almost 12 percent of all poultry was vaccinated in 2008. The figure increased to 28.2 percent in 2010 and 30.6 percent in 2012. Ha Tay had the highest vaccination rate for poultry in 2012, while Phu Tho had the highest rate in 2010 and Long An was at the top in 2008. The vaccination rate increased rapidly in 2010, yet only slightly in 2012. In some provinces, including Phu Tho, Dak Lak, Dak Nong and Long An, the vaccination rate has decreased.

Figure 6.6: Poultry Vaccinated in 2008, 2010 and 2012 (percent)

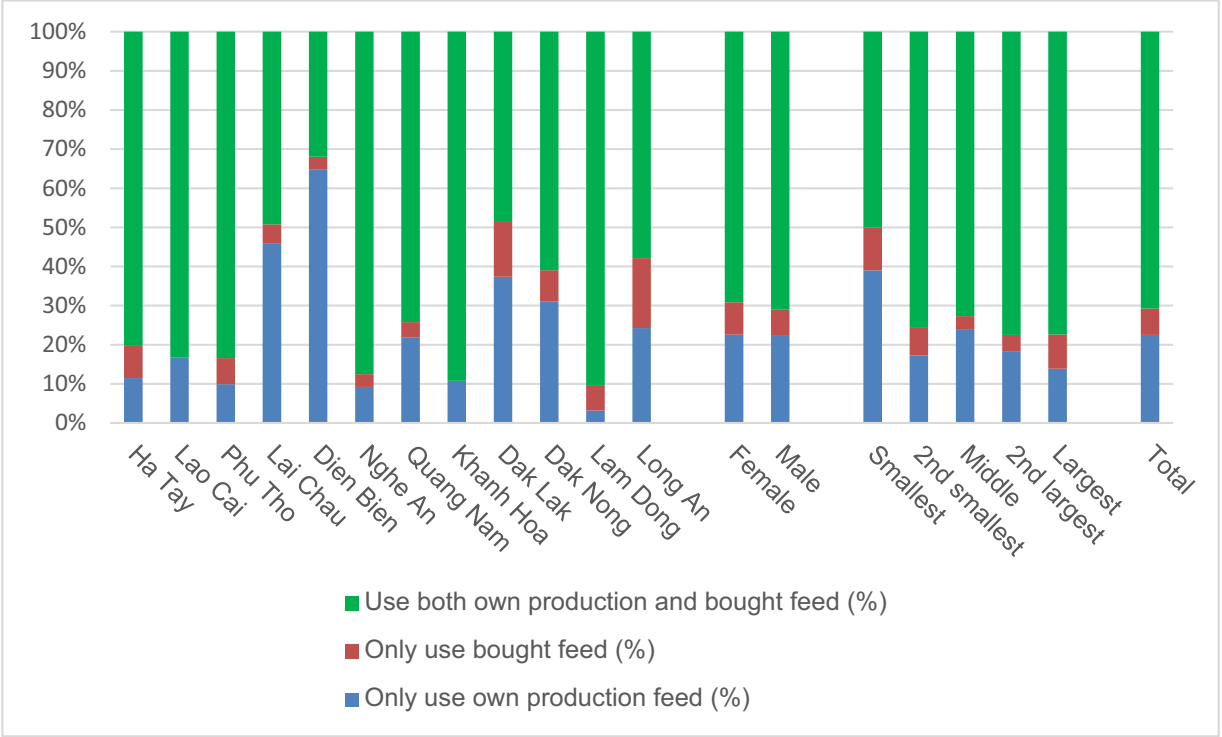


N 2008 = 985, N 2010 = 1,035 , N 2012 = 1,190

Figure 6.6 shows that female-headed households had a much lower vaccination rate in 2008 yet a higher rate in both the years 2010 and 2012. Both female-headed and male-headed households have witnessed a strong increase in vaccinated poultry over the period 2008 to 2010 period and a slight increase in the 2010 to 2012 period. Households with the largest production scale have seen a decrease in the vaccination rate in the period 2010 to 2012. For all the other production scale groups there has been an increase in the vaccination rate in 2010 to 2012, although the increase is not as substantial as the increase witnessed in 2008 to 2010.

Figure 6.7 presents statistics on the feed using structure of households with livestock. It is generally assumed that the more commercialized households will use purchased feed, while households who raise livestock for their own consumption will rely primarily on feed from their own production (self-production feed). Looking at the Figure 6.7 we can see that most households use a combination of self-produced and purchased feed. More than 69 percent of all the households use a mixture. Some 23 percent of the households use only self-production feed, while just 7.4 percent use bought feed. The ratio is different between provinces. In Long An, the province with most commercial farms, 20 percent of households rely solely on purchased feed. In the Northern highland provinces, less than 5 percent of all households use only bought feed. In Dien Bien, up to nearly 65 percent of all households rely on self-produced feed.

Figure 6.7: Feed Use Structure (percent)



N = 1,693

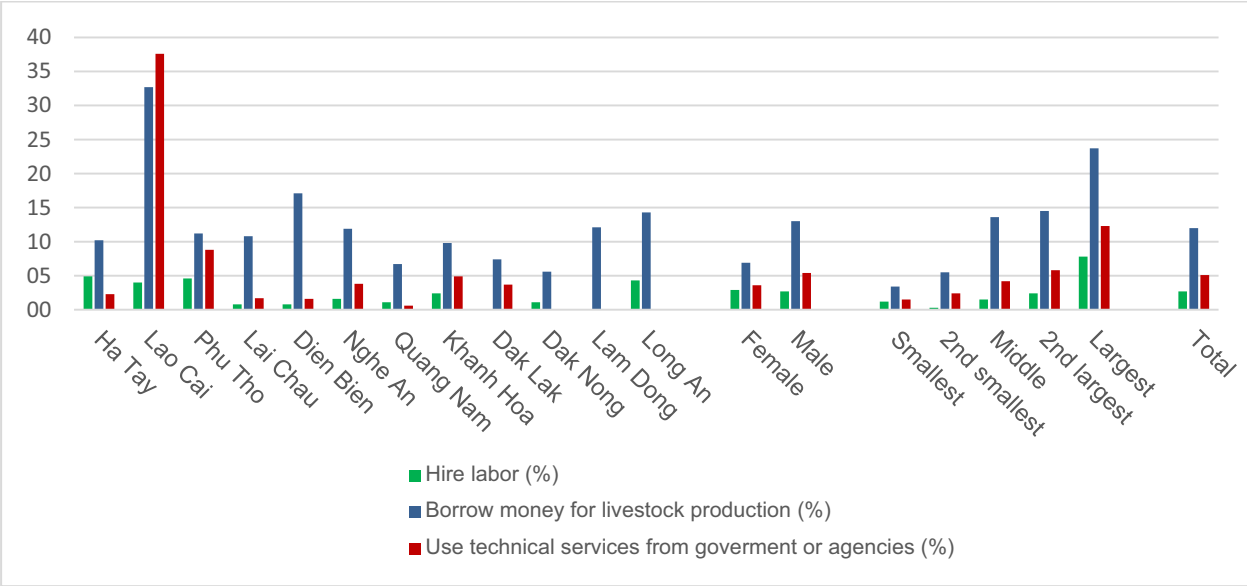
There is little variation in feed structure across male- and female-headed households. Substantial variation is, however, seen across households at different livestock production scales. The households with the smallest livestock production scale are most likely to use only their own production feed (40.2 percent). The number is 11.1 percent for the households with the largest production scales. The smallest group also have the highest percentage of households who use only purchased feed. Producing feed for livestock is a very time consuming task. This might explain why the households with the smallest production scale choose to solely use bought feed instead of self-produced feed.

In Figure 6.8, we look at other livestock production inputs including: labour, credit, and the use of extension services from the government. On average, 1.75 percent of households hire labour for their livestock production, 12.2 percent borrow money, and 5.3 percent use technical services from the government or other agencies. Households from the provinces of Ha Tay, Long An, Phu Tho, and Lao Cai are most likely to hire labour for livestock production with more than 4 percent of the households using hired labour. Unsurprisingly, the households with the largest production scale hire the most labour in 2012 (7.8 percent), 5.4 percent points higher than the second largest group.

Figure 6.8 shows that Lao Cai has the majority of households that use credit for livestock production (30 percent of all households). Dak Nong has the lowest rate with just 5.2 percent of the households borrowing money to use in livestock production. Male-headed households are more likely to borrow money for livestock than female-headed households. The difference

is 6.3 percentage points. The figure also illustrates a clear trend in production scale quintile. Only 3.3 percent of the households with the smallest production borrow money for livestock production compared to more than 22.8 percent for the largest producers.

Figure 6.8 Input Use (percent)



N: Hire labour = 1,655; Borrow money for livestock production = 1,653; Use technical services from government or agencies = 1,653

Larger households also have better access to technical services from the government or agencies. In practice commercial farms have to ask for professional advice in building stables, choosing feed, and vaccinating livestock. More male-headed household pay for technical services than female-headed households. Lao Cai has a surprisingly high rate (around 38 percent) of households that pay for technical services from government or agencies. It appears as if authorities in this province have targeted livestock producers for receiving credit and technical assistance.

6.4 Summary

Chapter 6 presented information on households' production of livestock and aquaculture, including information on vaccination and feed structure. Overall, two-thirds of all households have some form of livestock or aquaculture production indicating that livestock production plays an important role in Vietnam's rural economy.

For poorer households located in the Northern provinces, livestock is raised mainly for household consumption, while richer households in the Southern provinces operate larger and more commercial farms.

Finally, there has been an increase in the share of livestock vaccinated over the period 2008-2012, likely due to disease outbreaks and an increased awareness of the importance of vaccination. Most livestock producers operate at small-scale and make little use of non-household labour and credit. There is a large potential for developing this sector.

CHAPTER 7: COMMON PROPERTY RESOURCES

7.1 Introduction

In terms of the number of households involved, common property resources (CPR) work is the third most important source of rural household income, after agriculture and wage work (see Chapter 2). The most common type of CPR extraction is collection of wood used for fuel. This exemplifies the dilemmas related to CPR use: CPRs contribute essential inputs to households' production, such as sources of energy.

On the other hand, intense CPR extraction threatens ecological sustainability, for example when heavy firewood collection leads to deforestation. In a country as densely populated as Vietnam, such over-use of natural resources is a constant risk.

This chapter investigates the prevalence of different types of CPR activities, commercialization of CPR extraction, and the importance of CPR activities in generating household income and labour supply. Regulation of CPR extraction and tendencies toward CPR degradation are also analysed.

7.2 General Information about CPR Related Activities

Table 7.1 shows that between 2010 and 2012, there was not much change in the share of households engaged in CPR extraction. In both years, a bit more than a third of households were involved in CPR activities.

There are large differences between provinces: households depend more heavily on CPR collection in the mountainous provinces of Lao Cai, Lai Chau, Dien Bien, and Lam Dong than in the plain provinces such as Ha Tay and Long An. Although located in the Central Highlands, Dak Lak and Dak Nong are exceptions to this rule, as relatively few households report CPR activities in these provinces.

There is also a large difference in intensity of CPR-related activity between male- and female-headed households, and between Kinh and non-Kinh ethnicities. Male-headed/non-Kinh households are more dependent on CPR than female-headed/Kinh ones. The poor tend to be more dependent on CPR activities than the rich. Households with agriculture as their main source of income are also more likely to be involved in CPR activities compared to households that rely mainly on wage labour or non-farm enterprises.

Table 7.1: CPR Distribution

	Share of HH with CPR (percent)	Number of CPR activities
Total 2012	35.7	1,315
Province		
Ha Tay	7.0	87
Lao Cai	81.3	106
Phu Tho	28.6	116
Lai Chau	85.2	174
Dien Bien	84.7	188
Nghe An	37.3	113
Quang Nam	29.3	102
Khanh Hoa	60.0	72
Dak Lak	33.9	84
Dak Nong	42.0	69
Lam Dong	80.0	73
Long An	27.7	131
Gender of HH head		
Female	28.9	208
Male	37.8	1,107
Food expenditure quintile		
Poorest	68.0	324
2nd poorest	55.3	379
Middle	37.1	270
2nd richest	22.7	179
Richest	15.3	140
Ethnicity of HH head		
Non Kinh	81.9	683
Kinh	24.0	632
Main income sources		
Wage/Salary	32.4	467
Agriculture income	59.0	666
Non-farm, non-wage income	9.3	36
Others	21.9	146
Total 2012 panel	**36.4**	**1,088**
Total 2010 panel	**35.4**	**1,152**

N = 2,712 (N 2012 panel = 2,121 and N 2010 panel = 2,121)

7.3 Types of CPR Activities: Aquaculture and Forestry

Table 7.2 shows the share of households involved in different types of CPR activities, namely a) aquaculture, b) forestry without processing of collected products, and c) forestry *with* such processing. The table shows a five percentage point drop in the share of households involved in aquaculture between 2010 and 2012 (the difference is statistically significant at the 10 percent level).[18]

Table 7.2: Distribution of HH Engaged in CPR Activities (percent)

	CPR aquaculture	CPR forestry	CPR forestry HH with processing
Total 2012	20.0	90.8	21.3
Province			
Ha Tay	65.9	34.1	7.3
Lao Cai	11.5	98.9	11.5
Phu Tho	4.6	98.1	44.4
Lai Chau	24.3	100.0	42.6
Dien Bien	22.5	99.1	49.5
Nghe An	18.8	94.1	24.7
Quang Nam	4.0	96.0	1.0
Khanh Hoa	3.0	98.5	1.5
Dak Lak	17.9	100.0	17.9
Dak Nong	8.3	98.3	8.3
Lam Dong	3.1	100.0	3.1
Long An	63.8	50.0	5.3
Gender of HH head			
Female	15.8	90.3	18.8
Male	20.5	91.1	21.8
Food expenditure quintile			
Poorest	20.0	94.7	29.8
2nd poorest	20.2	90.2	25.1
Middle	17.3	91.8	18.3
2nd richest	20.5	88.4	14.4
Richest	23.8	85.1	7.9
Ethnicity of HH head			
Non Kinh	18.8	98.9	32.6
Kinh	20.5	83.9	11.3

18 CPR forestry includes: (1) cinnamon, (2) anise, (3) pine, (4) oil trees, (5) varnish trees, (6) bamboo, (7) fan palm trees, (8) water coconut, (9) hunted animal, (10) fuel wood, (11) timber, (12) rattan, (13) mushrooms, (14) nuts, (15) herb, (16) roots, and (17) other. Of these, fuel wood collection is by far the most common activity. CPR aquaculture includes: (1) fish, (2) shrimp, (3) oyster, (4) crab, and (5) other aquacultures. The most common activity is fish production. Note that this chapter focuses on aquaculture products from common property resources (public lakes and streams; the sea), while Chapter 6 focused only on aquaculture products from own ponds.

Total 2012 panel	**24.7****	**89.8**	**25.4***
Total 2010 panel	**29,5****	**89.4**	**20.6***

N 2012 = 986 (N 2012 panel = 519 and N 2010 panel= 519)

Note: *Difference between 2010 and 201.2 is significant at 10 percent level; ** significant at 5 percent level. Entries show are percent of households engaged in any CPR activities.

On the other hand, the share of households that both collect and process forestry products from CPRs increased by 5 percentage points. In the lowland provinces such as Ha Tay and Long An, a large share of CPR users are engaged in aquaculture. In the upland and mountainous provinces, households are much more focused on exploiting forestry resources.

Since lowland provinces tend to be richer, this partly explains why aquaculture is concentrated among better-off households, while poorer households are more likely to exploit CPRs from the forest. Somewhat surprisingly, poor households are more likely than rich to process the forestry products collected. Non-Kinh households are much more likely than Kinh to be engaged in forestry. This is again explained by the fact that non-Kinh families disproportionately live in mountainous areas. While male-headed households are more likely than female-headed ones to be involved in aquaculture activities, there is no significant gender difference in terms of using forestry CPRs.

7.4 The Economic Importance of CPRs

Table 7.3 presents results on commercialization of CPR production (i.e. the share of output sold), as well as results on the share of CPR activities in total household production and labour supply.

In general, the average share of aquaculture output sold (43 percent) is more than twice as high as the share of forestry output (17 percent).[19] Female-headed and Kinh households are more likely than male-headed and non-Kinh households, respectively, to sell their aquaculture output. Rich households are more commercialized than poor when it comes to aquaculture, but not in terms of forestry production. On average, CPRs contribute a relatively low share of total household income, even for the households that are engaged in CPR activities (below 10 percent). There has been a slight increase from 6 percent in 2010 to 8 percent in 2012. The share of CPR value in total agricultural value is around 22 percent.

In addition, Table 7.3 shows that CPR activities account for only around 4 percent of total household labour supply. The low figure is partly a result of the fact that total labour supply is defined as the total number of working days (number of adults times number of days per adult, excluding Sundays and holidays), and so includes days of overt or disguised unemployment. Still, the fact that CPRs contribute a larger share to household income than to total labour time may suggest that the rewards from CPR collection are relatively high, contrary to the view that CPR collection is associated with low-productivity. On the other hand, the results demonstrate clearly that CPR collection is generally not a major element of households' livelihood strategies, even in upland areas.

19 As in previous chapters, households are *not* weighted by scale of production in these calculations.

Table 7.3: Commercialization and the Role of CPRs in the Household Economy (percent)

	CPR aqua. sold or bartered in total aqua. output	CPR forestry sold or bartered in total forestry output	CPR output in total agri. value	CPR labour supply in total labour supply[22]	CPR net income in total HH net income[23]
Total 2012 (N =986)	36.7	16.6	10.0	4.0	7.9
Province					
Ha Tay (4)	70.8	18.3	21.8	10.4	21.7
Lao Cai (8)	21.3	26.3	0.9	3.8	3.2
Phu Tho (10)	59.8	24.8	4.9	3.5	4.1
Lai Chau (11)	37.4	8.8	4.3	4.5	14.4
Dien Bien (11)	18.7	16.8	2.7	3.8	7.3
Nghe An (8)	46.0	13.1	4.2	3.3	6.8
Quang Nam (10)	90.1	14.9	16.4	5.0	7.8
Khanh Hoa (6)	90.9	13.0	29.3	2.7	7.4
Dak Lak (5)	20.9	24.8	9.4	3.2	9.5
Dak Nong (6)	36.8	13.9	12.6	2.9	3.6
Lam Dong (6)	22.4	12.9	12.5	2.6	7.5
Long An (9)	23.7	11.1	16.4	4.9	7.3
Gender of HH head					
Female (16)	44.9	15.9	15.3	4.3	7.9
Male (83)	35.2	16.7	8.9	4.0	7.9
Food expenditure quintile					
Poorest (23)	29.9	16.0	5.2	3.9	9.1
2nd poorest (29)	38.8	16.2	11.0	3.6	8.7
Middle (21)	33.6	17.0	8.8	3.9	6.3
2nd richest (15)	48.6	17.8	13.5	4.7	8.0
Richest (10)	33.7	16.8	14.9	4.8	6.7
Ethnicity of HH head					
Non Kinh (46)	28.2	16.3	3.8	3.7	8.1
Kinh (53)	43.2	16.9	15.5	4.3	7.8
Total 2012 (panel)	40.5	15.7	7.1	4.2*** 472)***	8.8 **
Total 2010 (panel)	43.6	17.6	6.0	5.0***	6.1**

Note: share of total sample in percent in parenthesis.

22 Calculated by dividing share of HH labour supply for CPR activities by total HH labour supply. HH labour supply for CPR activities are number of days for all three most important activities. Total HH labour supply is calculated by multiplying the number of HH adult only (those are at 15 years old and more) with the number of working days in rural area (365 days – 52 Sundays – 9 holidays).

23 Net income is calculated as revenues excluding costs.

7.5 Management of CPRs

CPRs are notoriously prone to over-exploitation (the so-called "Tragedy of the Commons", Hardin 1968). This is one reason why collective management of CPR production is often desirable. Table 7.4 presents results on the share of CPR activities regulated by an organization, on the types of such organizations, and on respondents' perceptions about degradation of CPRs.

Table 7.4: Management of CPR Activities in Aquaculture and Forestry (percent)

		Of these:					
	Share of CPR activities regulated by an organization	CPR regulated by the State	CPR regulated by the Community	CPR regulated by the household	CPR regulated by others	Availability of aquaculture products from CPRs decreased in the last three years (answering "yes")	Availability of forestry products from CPRs decreased in the last three years (answering "yes")
Total 2012	8.2	19.7	68.0	6.6	5.7	90.6	76.1
Province							
Ha Tay	0.0	NA	NA	NA	NA	94.9	31.3
Lao Cai	55.8	6.0	85.1	9.0	0.0	42.8	82.3
Phu Tho	8.5	30.0	50.0	20.0	0.0	100.0	98.2
Lai Chau	5.1	100.0	0.0	0.0	0.0	62.0	87.5
Dien Bien	0.9	0.0	100.0	0.0	0,0	79.8	45.3
Nghe An	5.8	0.0	42.9	0.0	57.1	92.0	87.7
Quang Nam	3.9	0.0	100.0	0.0	0.0	50.0	49.0
Khanh Hoa	2.7	0.0	100.0	0.0	0.0	40.0	97.1
Dak Lak	9.5	37.5	37.5	0.0	25.0	80.8	84.3
Dak Nong	0.0	NA	NA	NA	NA	0.0	53.2
Lam Dong	7.4	0.0	100.0	0.0	0.0	100.0	100.0
Long An	0.7	0.0	0.0	0.0	100.0	91.5	72.2
Gender of HH head							
Female	3.9	0.0	100.0	0.0	0.0	93.8	72.5
Male	8.8	21.2	65.5	7.1	6.2	89.9	76.8
Food expenditure quintile							
Poorest	9.7	2.5	87.5	7.5	2.5	95.7	76.3
2nd poorest	8.2	37.8	54.1	8.1	0.0	90.4	79.5
Middle	7.6	25.0	62.5	8.3	4.2	93.5	78.5
2nd richest	9.4	16.7	55.6	0.0	27.8	87.1	74.4
Richest	2.1	0.0	100.0	0.0	0.0	87.9	59.0
Ethnicity of HH head							
Non Kinh	9.4	23.2	65.9	8.5	2.4	50.0	77.2
Kinh	6.2	12.5	72.5	2.5	12.5	92.1	74.5
Total 2012 panel	7.5**	10.5	89.5***	0.0**	0.0	93.5	76.5***
Total 2010 panel	10.7**	21.1	47.4 ***	26.3**	5.3	94.0	65.1***

N 2012 = 986

*Note: **Difference between 2010 and 2012 is significant at 5 percent level; *** significant at 1 percent level.*

The results show that only about 10 percent of CPR activities are regulated by an organization. Lao Cai is an outlier with 55 percent of activities regulated. In Ha Tay and Dak Nong, not a single household reports the presence of an organization regulating CPR collection. Looking at disaggregated statistics we see that CPR activities are more regulated by male-headed households, poor households, and households with a non-Kinh head. Most organizations regulating CPR extraction are run by local communities (68 percent). Only a fifth of organizations are run by the State. In the context of Vietnam, CPR regulation is thus characterized by an unusually high degree of local autonomy, to the extent that extraction is regulated at all.

A large majority of CPR-using respondents perceive a decline in availability of CPRs over the last three years. For forestry resources, this figure increased from 65 to 77 percent between 2010 and 2012. The results justify concerns about overexploitation of CPRs and suggest that stronger regulation of CPR extraction is necessary. It is striking that the availability of CPRs is perceived to be declining for both aquaculture and forestry resources in all areas (the few "zero" entries for aquaculture are in provinces with very few users of aquaculture CPRs).

7.6 Summary

This chapter investigated common property resources (CPRs). The data show that more than one third of all households are involved in collecting CPRs. Of these, about a third collect aquaculture resources, and almost 90 percent use forestry resources (most commonly firewood). Aquaculture production is more commercialized than forestry activities. CPRs contribute only moderately to total household income and labour supply.

It is a cause for concern that a large majority of households in all areas perceive a decrease in the availability of CPRs over the last three years. Declining availability of CPRs, for example as a result of deforestation, may be correlated with environmental problems such as soil erosion and loss of biodiversity. These problems may have economic repercussions far beyond the limited role of CPRs as a source of household income. For example, soil erosion may lead to decreased productivity in agriculture and a loss of biodiversity could limit the tourism industry. Also, some CPR products may not be easy to replace. For example, firewood fills the essential need for energy. If firewood resources are degraded, households must find other types of fuel, such as kerosene. This may be difficult or expensive if markets for such products are imperfect or non-existent. Currently, very few CPR collection activities are regulated by any type of organization. Stronger regulation may be desirable to slow the degradation of CPRs.

References

Hardin, G. 1968. The Tragedy of the Commons. Science, Vol. 162, No. 3859, pp. 1243–1248

CHAPTER 8: RISKS AND RISK COPING MEASURES

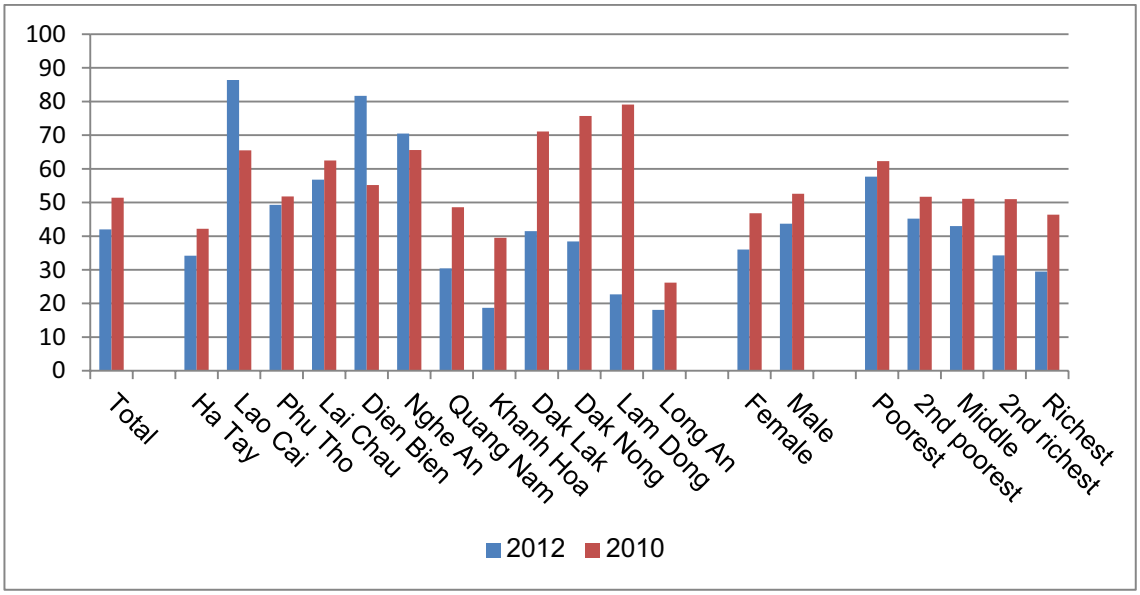
8.1 Introduction

Rural households in Vietnam face many sources of vulnerability, ranging from shocks to agricultural activities, such as natural disasters or plant and animal diseases that reduce yields and destroy livestock, to local or idiosyncratic shocks that reduce household income, such as illness or unemployment of family members. The 2012 survey round occurred against a backdrop of macroeconomic instability, characterized by a lower real growth rate and persistent inflation, which is likely to have had consequences for the ability of vulnerable households to cope with unexpected income losses. This chapter focuses on risks faced by households, the measures they use to cope with them, including the use of savings, insurance, credit, and support from the Government through extension services and public transfers. Some findings from the 2012 survey will be compared with those of the 2010 round.

8.2 Risks

Figure 8.1 shows that during 2010 to 2012, roughly 40 percent of sampled households reported suffering from some form of shock, which is lower than the period 2008 to 2010 (51 percent). The incidence of shocks varies considerably across provinces. For example, in Lao Cai, Dien Bien and Nghe An, the majority of households experienced adverse shocks (86, 82, and 71 percent of the sample, respectively), and the ratios were higher than those reported in the previous survey round. Other provinces showed significant reductions in reported shocks, particularly in Dak Lak (41 percent in 2012 versus 71 percent in 2010), Dak Nong (38 percent versus 76 percent) and Lam Dong (23 percent versus 79 percent).

Figure 8.1: Households Facing Shocks (percent)

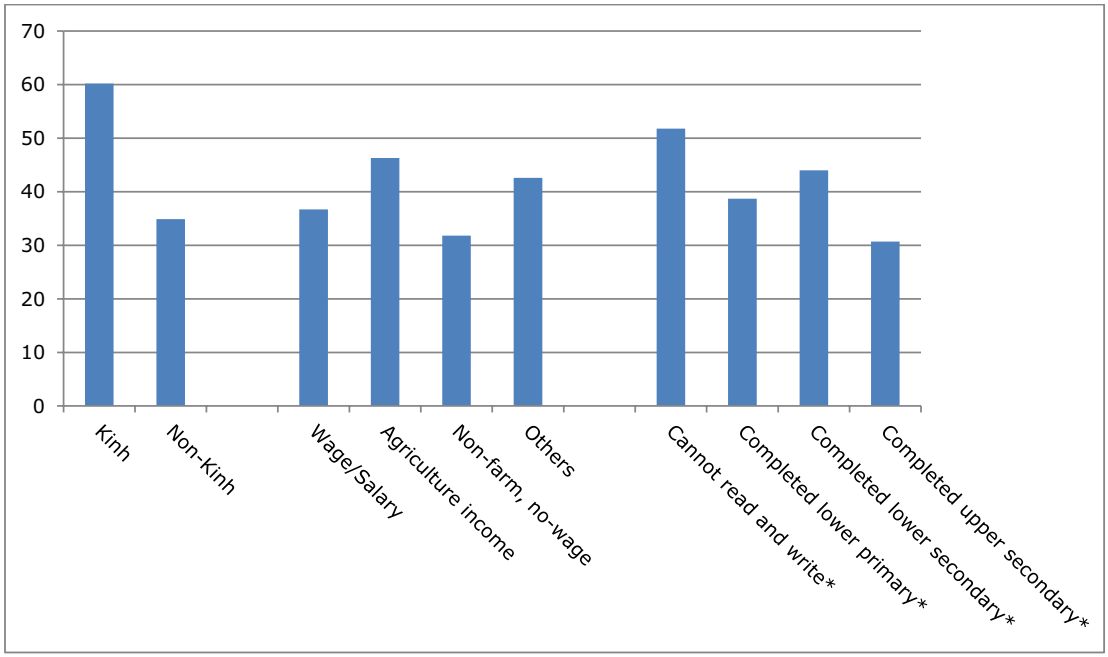


N2012=2,227 and N2010=2,200

Comparing reported vulnerability by characteristics of the household head, those with female heads were less likely to report being affected by a shock (36 percent versus 44 percent), consistent with results from previous surveys. With respect to socioeconomic status (measured by food expenditure quintile), poorer groups were more likely to have experienced a negative shock. As with most descriptive statistics, this result does not imply causation, since it is not clear whether lower-income households are more exposed to negative shocks or negative shocks drive households into lower food expenditure quintiles.

Figure 8.2 disaggregates households by ethnicity, main source of income, and the education status of the household head. As might be expected, households that depend mainly on agriculture for income experienced the most shocks (accounting for 46 percent), while exposure to shocks decreased in the level of education of the head of the household; 52 percent of households with an illiterate household head experienced a negative shock of some form, compared to around 30 percent of those headed by a member that had completed his/her upper secondary education. Households of non-Kinh ethnicity appear to be more vulnerable to unfavourable conditions than those of Kinh ethnicity (60 versus 35 percent)

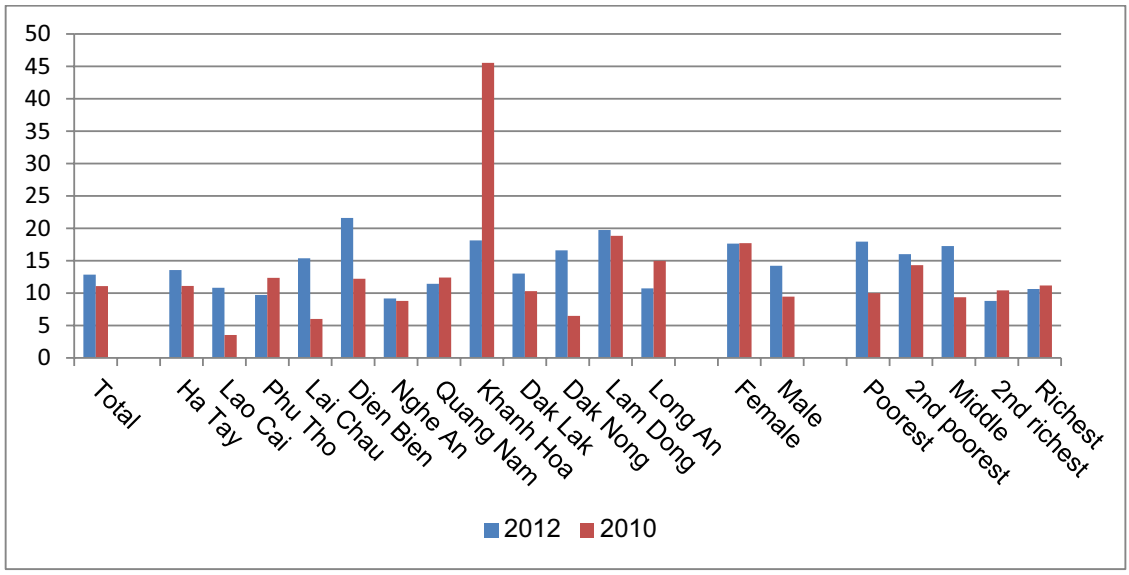
Figure 8.2: Characteristics of Households Reporting Shocks, 2012, percent



N=2,741; N=2,542*

In addition to observing households that experienced a shock, the 2012 survey round collected data, displayed in Figure 8.3, on the intensity of those shocks, measured by the relative share of the value of losses in total household income.

Figure 8.3: Value of Loss Due to Shock as Share of Annual Net Income (percent)



N 2012=930 and N 2010=810

While the percentage of households facing shocks in 2010 to 2012 was lower than in the period 2008 to 2010, losses were a larger share of net income in 2012 (15 compared with 12 percent). This may be due to a combination of increases in the value of losses and/or decreases in net income. In some provinces, the effect of bad shocks on net income was significantly higher than during the previous survey round, in particular in Dien Bien (22 vs. 12 percent), Lai Chau (15.6 vs. 6 percent), and Dak Nong (16.6 vs. 6 percent).

Table 8.1 examines the value of losses due to income shocks.

Table 8.1: Value of Loss Due to Income Shocks ('000 real VND)

Total 2012	7,989		
Province		**Gender of HH heads**	
Ha Tay	11,787	Female	7,632
Lao Cai	3,635	Male	8,066
Phu Tho	4,408	**Food expenditure quintiles***	
Lai Chau	5,922	Poorest	6,644
Dien Bien	7,981	2nd poorest	8,113
Nghe An	4,621	Middle	9,416
Quang Nam	5,024	2nd richest	6,695
Khanh Hoa	17,458	Richest	9,659
Dak Lak	6,833	**Main income source**	
Dak Nong	10,661	Wage	5,212
Lam Dong	8,926	Agriculture	8,350
Long An	8,513	Non-farm, non-wage	12,838
		Other	11,202
		Ethnicity	
		Kinh	8,632
		Non-Kinh	6,552

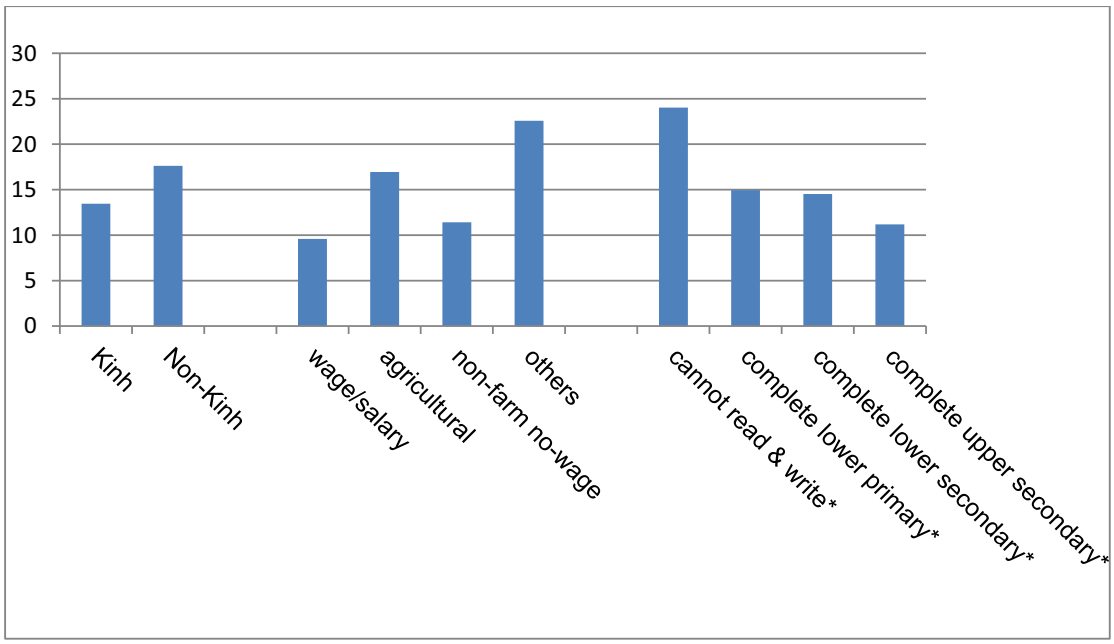
N=1,100; N=1,093*

The table shows that the average reported loss among households exposed to a shock was around VND 8 million in the 2012 survey round, with significant variation across provinces, including relatively high average losses in Long An (VND 8.5 million), Lam Dong (VND 8.9 million), Khanh Hoa (VND 17.5 million), Dak Nong (VND 10.6 million) and Ha Tay (VND 11 million).

Examining the relative effect of bad shocks (Figure 8.4) by household characteristics suggests that households whose principle source of income is agriculture experienced greater losses as a proportion of total income than those whose main source of income was household enterprises or waged employment. This is partly due to more frequent exposure to shocks and partly due to lower total net income in 2012 (around VND 63 million compared to an average of VND 78.3 million for households whose main source of income is wages/salary and VND 130 million for those that earn the majority of their income from non-farm, non-wage activities).

Non-Kinh households are also more vulnerable in terms of the extent of the income loss associated with shocks when measured as a proportion of total income. As in previous survey rounds, the effect of negative income shocks displays a clear income gradient, and households headed by less educated members lose a larger share of net income due to shocks.

Figure 8.4: Loss as Share of Net Income by Household Characteristic, 2012



N=1,100; N=1,031*

Table 8.2 disaggregates shocks by type. The most frequent shocks were natural disasters, biological shocks (such as avian flu, pest infestation and crop diseases), and illness, injuries or death of household members.

The percentage of households facing other shocks was small, such as land loss (1.1 percent), unsuccessful investment (2.9 percent), change in crop or input prices (6-7 percent), and other shocks (4.7 percent).

Interestingly, when the effect of shocks on net income is disaggregated in Table 8.3, job loss and death or sickness caused the largest decreases in overall income, indicating that social insurance mechanisms can play a role in mitigating the most extreme income shortfalls experienced by rural households.

An in-depth study based on data from the VARHS (2006, 2008, 2010) has shown evidence that social insurance plays an important role in easing the depletion of savings to cope with idiosyncratic shocks but that it does not fully cover the types of risks that rural households in Vietnam face (CIEM, 2011a).

8.3 Coping Mechanisms

Households recorded the two most important measures they used to cope with shocks (Table 8.4). Most households were self-reliant, either doing nothing or using assets, savings, or other internal mechanisms to smooth consumption. Of these, most households did nothing (45.5 percent), reduced consumption (52 percent), or relied on savings (13.1 percent). Amongst informal coping mechanisms, households mainly relied on assistance from relatives or friends (10 percent of households reported using this measure).

Comparing different categories of responses to shocks, the richest households and households with the highest level of education employed a greater variety of mechanisms to cope with shocks: they were more likely than poorer families to borrow money, get assistance from friends/relatives, make an insurance claim, or use their own savings. In relation to ethnicity, households with heads of non-Kinh ethnicity mostly used self-reliant mechanisms such as doing nothing or selling assets/livestock.

The survey also recorded information about the extent of recovery from shocks, broken down by type. These are illustrated in Table 8.5. Natural disasters and biological shocks appear to be the most transitory, since most households fully recover from these shocks. While a much smaller number of households are affected by economic shocks (input or output price changes, job loss, or unsuccessful investments), those that were affected were significantly less likely to make a full recovery.

Table 8.2: Share of Households Affected by Income Shocks, 2010-2012 (percent)

	Natural disasters	Biological shock	Crop price change	Shortage or input price change	Food or commod-ity price change	Job loss	Unsuccessful investment	Land loss	Illness, injuries or death	Other shocks
Total	30.9	58.3	6.7	5.4	7.7	1.2	2.9	1.1	26.3	4.7
Gender of HH heads										
Female	25.5	45.4	6.6	4.1	5.6	1.5	1.5	2.5	40.8	6.1
Male	32.1	61.1	6.7	5.6	8.2	1.1	3.2	0.7	23.1	4.4
Food consumption quintiles*										
Richest	37.8	64.1	3.6	4.6	10.2	0.7	2.0	2.0	20.4	3.6
2nd richest	31.2	57.0	6.3	3.8	6.3	2.1	3.0	1.3	28.7	4.6
Middle	32.9	59.1	6.7	2.2	5.3	1.3	4.9	0.4	25.3	6.2
2nd poorest	30.0	53.3	9.4	6.1	7.8	1.1	2.2	0.6	27.2	3.9
Poorest	15.6	53.1	10.9	13.6	8.8	0.7	2.7	0.0	34.0	6.1
Main income source										
Wage	34.0	54.1	6.2	4.8	7.3	2.1	3.2	1.1	24.2	6.4
Agricultural	32.4	69.8	6.8	6.6	9.6	0.5	2.8	0.8	15.9	3.6
Non-farm no-wage	15.4	58.9	16.7	15.4	10.3	1.3	1.3	0.0	26.9	2.6
Others	27.7	47.3	4.1	0.9	4.5	0.4	3.2	1.8	47.3	4.1
Educational level of HH heads**										
Cannot read and write	32.7	65.3	11.8	7.9	17.8	2.9	1.9	1.9	21.8	1.9
Complete lower primary	26.7	65.3	2.8	7.9	10.8	0.5	2.4	0.9	20.6	5.6
Complete lower secondary	32.4	60.1	6.9	4.0	4.7	0.9	3.3	1.1	25.8	4.2
Complete upper secondary	26.5	44.7	7.6	5.3	6.5	2.5	4.1	1.2	38.2	6.5
Ethnicity of HH heads										
Kinh	31.6	50.6	7.4	5.1	5.4	1.2	2.9	1.3	30.9	5.0
Non-Kinh	29.4	75.3	5.3	5.8	12.9	1.2	2.9	0.6	15.8	4.1

N=1,100; N*=1,093; N**=1,031

Table 8.3: Loss to Net Income Ratio by Shock Type, 2012

	Natural disasters	Biological shock	Crop price change	Shortage or input price change	Food or commodity price change	Job loss	Unsuccessful investment	Land loss	Illness, injuries or death	Other shocks
Percent	8.6	13.4	8.1	6.2	4.4	23.4	16.5	16.7	25.7	15.2
Observations	222	510	34	23	20	5	20	9	228	35

Table 8.4: Risk Coping Measure 2012 (percent)

	Self-reliance	Informal mechanism	Formal mechanism	Other mechanism	Did nothing	Reduced consumption	Sold land, livestock, or other	Assistance from relatives	Assistance from gov't / NGO	Borrowed from bank	Borrowed from others	Used savings	Other
Total	91.5	14.5	9.8	4.7	45.5	52.0	9.2	10.2	2.9	3.8	4.7	13.1	8.6
Gender of HH heads													
Female	85.2	27.0	10.7	7.1	42.3	45.9	7.1	20.9	4.1	2.0	7.1	12.8	13.3
Male	92.9	11.7	9.6	4.2	46.1	53.3	9.6	7.9	2.7	4.2	4.2	13.2	7.6
Food consumption quintiles													
Poorest	95.4	11.8	8.9	3.9	44.1	59.5	11.5	7.9	3.3	3.0	3.9	10.2	11.2
2nd poorest	92.4	14.8	8.9	4.6	48.9	47.7	10.1	10.5	2.5	5.1	4.6	11.4	5.9
Middle	91.6	12.0	12.0	5.3	49.3	52.0	8.9	8.0	4.0	5.3	5.3	14.7	8.4
2nd richest	88.9	16.1	8.3	4.4	42.8	52.8	7.2	11.7	2.2	3.9	4.4	12.8	5.6
Richest	87.1	19.7	10.2	5.4	42.2	42.2	5.4	15.0	0.7	1.4	5.4	20.4	11.6
Main income source													
Wage	92.0	14.8	9.1	6.2	44.3	55.0	7.8	9.6	2.3	4.6	6.2	13.2	8.4
Agricultural	96.7	8.0	5.5	3.6	50.3	50.5	12.6	4.7	2.7	2.7	3.6	13.7	5.5
Non-farm non-wage	91.0	20.5	9.0	11.5	50.0	56.4	3.8	9.0	1.3	5.1	11.5	6.4	5.1
Others	82.3	22.3	18.6	1.4	38.2	46.8	8.2	20.9	5.0	3.6	1.4	14.1	15.5
Educational level of HH heads													
Cannot read and write	97.0	9.9	6.9	0.9	60.4	50.5	12.9	8.9	5.0	2.0	1.0	11.9	7.9
Lower primary	89.7	17.4	11.7	4.2	43.2	50.7	11.3	13.2	5.6	5.2	4.2	13.6	5.6
Lower secondary	92.3	11.5	9.3	4.6	43.3	52.7	9.0	7.3	1.8	3.3	4.8	13.0	9.1
Upper secondary	87.1	20.6	11.8	7.6	45.3	48.8	5.3	14.1	1.8	5.9	7.6	14.7	10.0
Ethnicity of HH heads													
Kinh	88.6	18.0	11.7	5.7	40.5	52.9	7.5	13.0	3.4	4.2	5.7	14.6	9.5
Non-Kinh	98.2	6.5	5.6	2.6	56.5	50.0	12.9	3.8	1.8	2.9	2.6	9.7	6.8

Table 8.5: Recovery by Shock Type, 2012

	Sample	Full Recovery	Partial Recovery	Not Recovered
Natural disasters	340	63.2	49.1	14.1
Biological shock	641	51.5	49.6	19.5
Crop price change	74	44.6	50.0	39.2
Shortage or input price change	59	40.7	55.9	32.2
Food or commodity price change	85	49.4	61.2	35.3
Job loss	13	30.8	61.5	23.1
Unsuccessful investment	32	40.6	68.8	25.0
Land loss	12	50.0	33.3	16.7
Illness, injuries or death	289	45.3	48.8	20.1
Other shocks	52	53.8	38.5	32.7

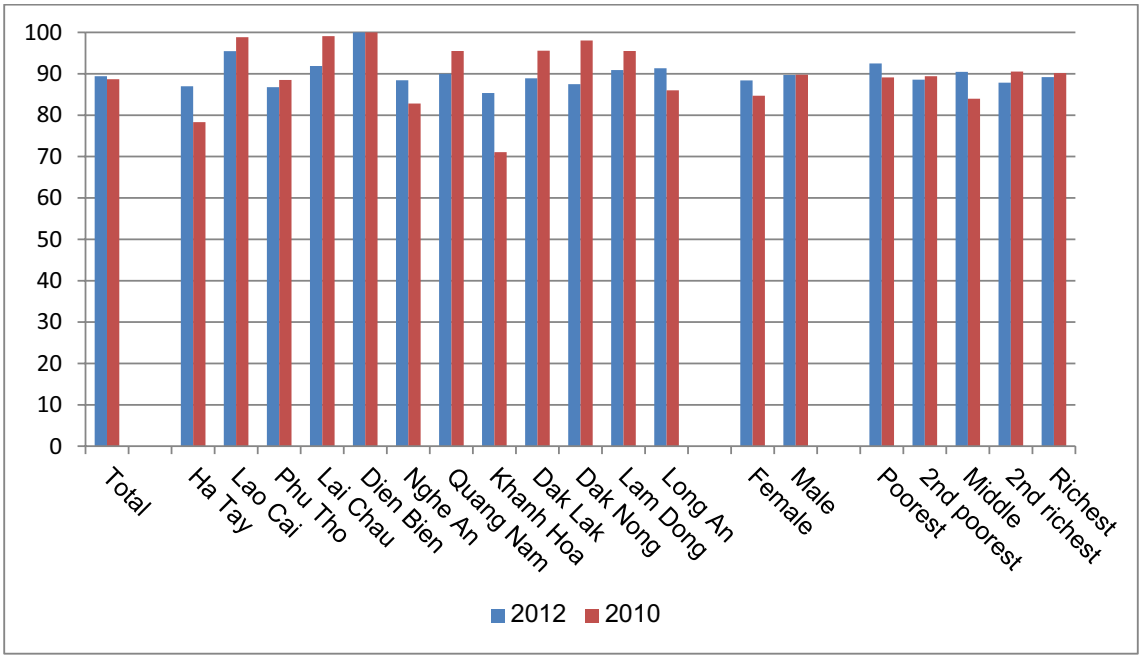
Note: Entries indicate whether household has recovered at the time of the interviewfrom shock during last two years.

8.4 Insurance

In contrast to many lower middle-income economies where insurance markets are not well developed, the majority of rural households surveyed by VARHS had at least one form of formal insurance. As revealed in Figure 8.5, nearly 90 percent in the 2012 round had some form of insurance compared to around 88 percent in the 2010 round.[20] The overall increase in insurance coverage disguises an increase in inequality of coverage, since in provinces such as Lai Chau, Dak Lak, Dak Nong, Lam Dong and amongst the poorest income quintiles, coverage decreased by 5-10 percent between survey rounds.

20 A key component of social protection in Vietnam is the provision of free insurance including social, health and unemployment insurance with health insurance by far the most significant component of this (VASS, 2011).

Figure 8.5: Households with At Least One Insurance Product (percent)



N2012=2,227 and N2010=2,200

Table 8.6 shows the share of households holding different types of insurance. The most prevalent forms of insurance were health, student insurance[21], and vehicle insurance, most of which are compulsory. Only a minority of respondents reported buying voluntary insurance. While not shown in the table, none of the households in our sample reported owning agricultural/farmers' insurance or fire insurance.[22] Free health insurance is particularly prevalent, especially amongst the poorest quintiles, which explains the high incidence of insurance evident among this group in Figure 8.5.[23]

In-depth research has shown that though free insurance supplied by the State yields greater benefits to the middle wealth group, it also acts as an important buffer for some poor households in coping with income shocks (CIEM, 2011a). The same study shows that free insurance also has a role in easing the depletion of savings in response to idiosyncratic shocks.

Having a better-educated head of household or belonging to a richer food expenditure quintile was associated with a greater likelihood of owning a voluntary insurance instrument. This

21 Student insurance is a term used for insurance provided to pupils at schools or students at university. Coverage includes health insurance and body/accident insurance. Student insurance is voluntary and is usually offered at a low price.

22 The Government of Vietnam implemented a pilot scheme in 2011 to extend agricultural/farmer insurance coverage to rural farmers, but no households in the VARHS sample participated in this scheme at the time of the 2012 survey.

23 It should be noted that the coverage of free health insurance for the poor is not limited to households classified as poor by MoLISSA (see chapter 1) and is estimated to extent to cover 57 percent of the population of Vietnam (VASS, 2011).

suggests that purchasing insurance products is not a viable coping mechanism for the most vulnerable households that face the greatest exposure to negative shocks. It could also be that such insurance products are simply not available to those that need them most.

Investment in formal insurance instruments may be low because households do not receive the expected pay-outs from their insurance contracts, and there is some tentative evidence to suggest that this may be the case. The 2012 survey recorded 218 households with some form of health insurance that also reported a negative income shock from injury, illness or death to a household member. Of these, only 77 received an insurance payment and less than half (43 percent) reported fully recovering from the negative income shock.

In light of a major contemporary focus on expanding Vietnam's social welfare net, further research using data produced by VARHS will be essential to ensure that households benefit from increases in insurance coverage, in particular those that are the most vulnerable.

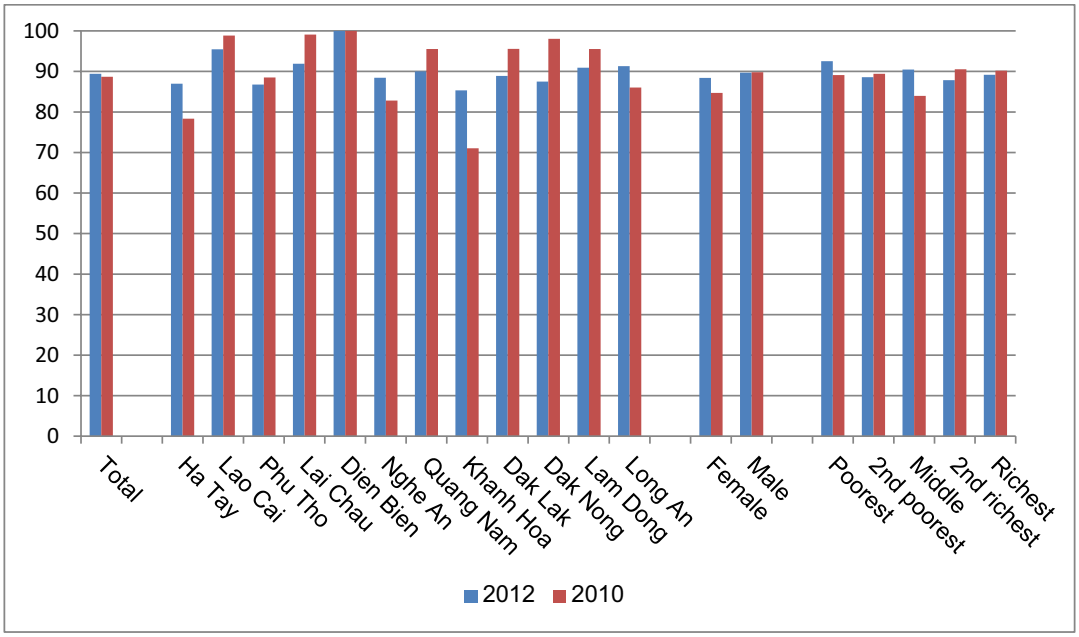
Table 8.6: Insurance Instrument Ownership 2012 (percent)

	Life	Voluntary social	Compulsory social	Health	Unemployment	Free health insurance	Free health insurance for children	Education	Vehicle	Other
Total 2012	2.7	1.5	13.6	35.2	5.9	18.5	28.7	24.7	30.2	12.8
Main income source										
Wage/Salary	3.1	1.9	24.5	39.9	10.7	16.6	33.6	26.0	34.3	8.2
Agriculture income	1.8	0.9	3.4	23.9	1.4	23.9	30.0	23.2	29.1	19.3
Non-farm, no-wage	3.7	0.4	7.8	42.0	3.3	4.9	25.7	43.7	39.2	5.7
Others	2.7	1.7	6.8	38.4	2.7	20.9	16.7	14.9	18.0	16.9
Educational level of HH heads										
Cannot read and write	0.5	0.0	3.1	14.9	0.0	50.3	33.8	11.3	14.4	23.1
Completed lower primary	1.3	0.9	9.4	31.0	5.1	26.3	27.0	22.5	24.5	12.7
Completed lower secondary	3.0	1.5	12.0	35.4	5.3	13.1	27.6	27.1	33.7	11.9
Completed upper secondary	5.2	2.3	27.4	46.6	11.2	7.6	31.9	27.1	36.5	11.7
Food expenditure quintile										
Poorest	0.7	0.4	4.8	15.2	2.0	45.1	34.8	18.7	19.6	15.2
2nd poorest	1.7	1.7	7.9	29.2	2.8	24.1	30.1	27.4	26.3	13.2
Middle	2.0	0.7	10.5	36.3	3.7	12.2	27.9	23.2	30.4	13.1
2nd richest	3.0	1.9	20.0	42.2	8.9	5.9	25.7	29.4	33.3	12.2
Richest	5.9	2.6	24.9	53.9	11.8	5.0	22.7	24.9	42.1	10.7
Ethnicity of HH heads										
Kinh	3.4	1.7	15.8	41.0	7.3	11.7	25.5	28.6	32.7	8.0
Non-Kinh	0.0	0.7	5.1	12.9	0.5	44.4	40.9	9.7	20.5	31.5

8.5 Savings

Previous research using the VARHS has found that savings play an important role in allowing households to maintain consumption levels after experiencing a shock to income (CIEM, 2011a). As revealed in Figure 8.6, between 2010 and 2012, there was a 10 percent increase in the number of households that save, with exceptional increases in specific provinces: Dak Lak (from 53.3 percent in 2010 to 99.3 percent in 2012), Lam Dong (from 49.3 percent to 92.4 percent), and Dien Bien (from 63.8 percent to 84.6 percent).

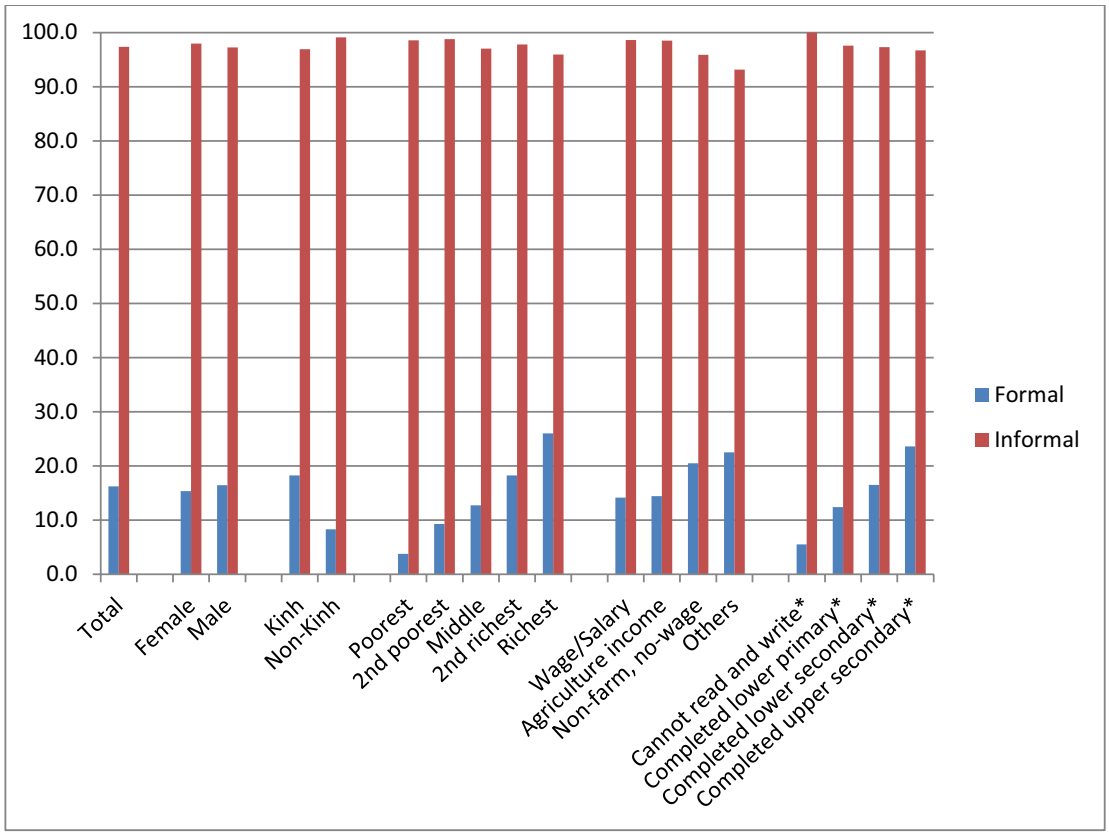
Figure 8.6: Households with Savings (percent)



N2012=2,227 and N2010=2,200

Households can save either informally, through holding cash or gold at home or through informal savings groups, or formally in commercial banks or other financial institutions. Formal savings yield a positive interest rate and can be used to access further loans. However, most rural households do not save formally, preferring to hold their savings informally. Figure 8.7 shows the relative shares of formal and informal savings by households. Informal savings mechanisms dominate accounting for the majority of all savings in all household types. In-depth research has shown that financial savings, particularly cash and gold held at home, act as important buffers in the face of spatially covariant shocks, such as natural disasters (CIEM, 2011a). Households of Kinh ethnicity are more likely to save through formal means but also have high levels of informal savings. Formal savings are most prevalent among households that are richer as measured by food consumption quintile and households with better-educated heads of household. There is a clear opportunity for policymakers to extend the reach of formal banking networks so that these services reach rural households and minority groups.

Figure 8.7: Households with Formal and Informal Savings, 2012 (percent of saving households)



N2012 =2,246; N2012=2,107*

8.6 Motivation for Saving

Table 8.7 illustrates households' reported motives for saving. The majority of respondents save for precautionary purposes, in particular, to meet unanticipated health care costs (50.5 percent) or to protect against a bad harvest or a natural disaster (13.5 percent). This is consistent with in-depth work based on the 2008 and 2010 VARHS which identified savings as an important coping mechanism for households when faced with adverse income shocks and suggests that this pattern continues in rural areas (CIEM, 2011a). Fewer households report that they save for productive investment purposes; 9.3 percent report that they save for profit making investments, while 23.2 percent report that they save to buy agricultural inputs. Another main motive for saving is for consumption items with 41.4 percent of households reporting that they save to accumulate money for big expenditures. Lifecycle motives are also important with 19.6 percent of households reporting that they save for old age.

Table 8.7: Reasons for Saving, 2012, percent

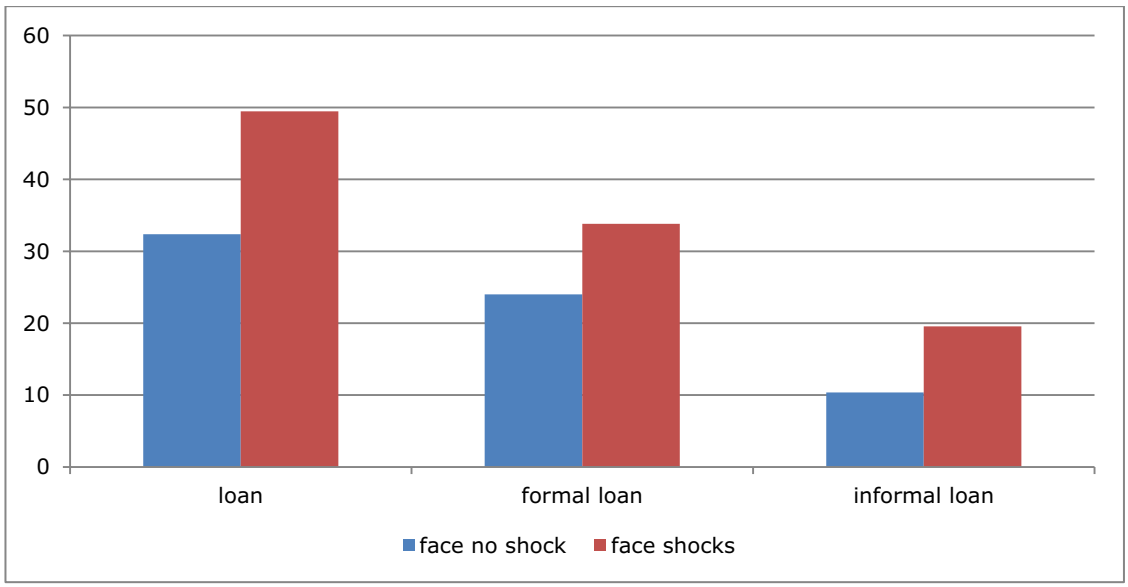
		Protect against bad harvest / natural disasters	Provide for old age	Health care expenses	Accumulate for other big expenditures	Education	Buy agricultural inputs	Profit-making investment	Others
Total	Save	13.5	19.6	50.5	41.4	24.3	23.2	9.3	24.7
	Formal	11.8	29.9	28.2	44.9	16.4	6.9	36.4	12.9
	Informal	12.4	16.0	48.7	37.5	23.0	22.8	3.6	24.0
Gender of HH heads									
Female		8.1	28.0	55.8	40.9	20.1	16.9	8.4	28.4
Male		14.8	17.5	49.2	41.5	25.4	24.7	9.5	23.7
Main income source									
Wage		11.8	16.4	51.7	44.8	26.8	18.7	8.7	24.9
Agricultural		22.2	13.7	42.2	35.8	24.3	41.0	7.3	20.6
Non-farm, non-wage		5.6	19.0	49.2	56.4	33.9	7.7	15.4	35.4
Others		7.1	38.0	62.0	34.7	13.4	12.4	10.9	25.6
Food expenditure quintiles									
Poorest		20.4	39.9	21.4	33.8	8.8	33.5	4.8	25.7
2nd poorest		16.6	49.9	24.0	27.3	14.0	35.4	4.7	23.3
Middle		12.9	51.6	21.8	23.1	21.6	38.2	8.2	23.6
2nd richest		11.0	54.2	27.3	21.3	23.9	46.5	10.3	19.6
Richest		8.7	53.8	25.9	14.2	27.1	50.2	16.4	30.6
Educational level of HH heads									
Cannot read and write		11.1	12.5	47.2	45.1	13.9	34.7	2.8	20.1
Complete lower primary		15.5	24.4	51.2	37.5	23.3	25.1	7.1	20.6
Complete lower secondary		14.4	18.2	48.8	41.1	25.5	24.2	9.1	26.0
Complete upper secondary		11.2	18.0	52.6	48.0	26.3	15.9	13.7	27.5
Ethnicity of HH heads									
Kinh		12.0	53.7	25.6	19.2	21.9	41.0	10.6	25.7
Non-Kinh		19.4	38.0	19.2	38.7	10.5	43.0	3.7	20.5

8.7 Credit

Previous research highlighted credit as an important coping mechanism in the face of adverse income shocks (CIEM, 2011a). However, in 2012 very few households report that they access credit to recover from income shocks: 3.8 percent of households borrowed money from a bank to recover from an unexpected income shortfall while 4.7 percent reported borrowing from other individuals. The proportion of households that access credit, however, varies significantly across households who experience a shock and those that do not suggesting that, although unstated, it is an important coping mechanism.

Figure 8.8 reveals that of those households that reported some form of negative income shock, around 50 percent took out a loan of some kind compared to 30 percent of households that did not experience this shortfall. While no causality can be inferred from this, it is a significant difference in behaviour across these two groups and suggests that credit remains an important coping mechanism. This is indicative of a failure of formal social safety nets to protect vulnerable households, requiring them to build up credit and increase their level of indebtedness. Future research is needed to establish the extent to which this is the case.

Figure 8.8: Households with Loans and Shock Status, 2012 (percent)

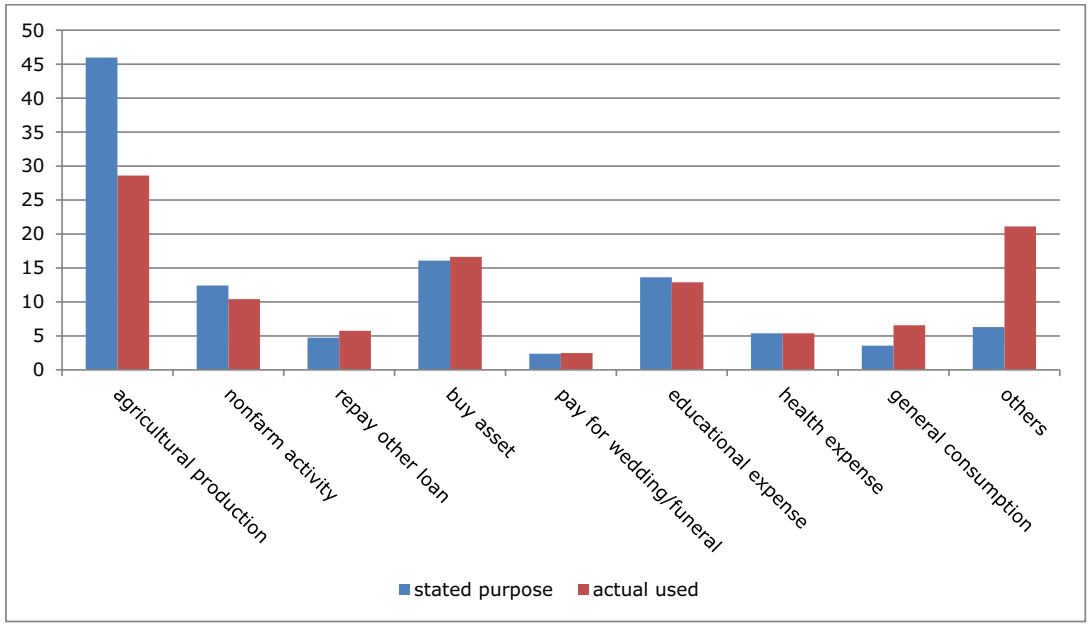


N=2,741

A further feature of the survey instrument is that researchers gain an understanding of the motives behind household borrowing, and ask households to distinguish between what they told the creditor the loan would be used for and the loan's actual purpose. As revealed in Figure 8.9, 45 percent of households took out a loan with "agricultural production" as the stated purpose. In fact, only 28 percent of households actually used their loans for agriculture, while the remaining 17 percent used it for something else. This suggests that the way in

which loans are monitored is for the most part ineffective and that the credit being offered in many cases is not serving its original purpose. In particular, households that use loans for consumption purposes run the risk of accumulating debt making them even more vulnerable in the future, particularly when exposed to adverse income shocks (CIEM, 2011b).

Figure 8.9: Actual and Stated Purpose for Loan, 2012 (percent)



N=1,094

8.8. Extension and Public Transfers

Other forms of supports from the Government can play an important role in helping households cope with shocks. They include extension services, market information, training programmes, education subsidies and public transfers. Though the VARHS survey does not collect information on all of these forms of support, some analysis is possible given the data available that can help inform Government on the role and functionality of social safety nets for rural households.

Extension services include all activities that provide information and advisory services to farmers on issues relating to for example breeding, fertilizers, technical issues, and market prices. In Vietnam, extension services are provided by the State through a scheme which was established in 1993. However, after nearly 20 years in operation, the proportion of households that receive extension services is still quite moderate. In 2012, less than half of the sample households (46.4 percent) reported that they had visited the extension office, participated in its events, or had been visited by its staff.

Table 8.8: HHs Reporting Decisions Affected by Extension Information, 2012 (percent)

	Decisions on				
	Crop production	**Raising livestock**	**Aquaculture**	**Selling prices**	**Other agriculture issues**
Very much	26.12	21.4	5.74	20.49	12.97
Moderately	53.46	50.22	29.59	53.3	49.63
No effect	20.42	28.37	64.67	26.21	37.41
No. of observations	2,439	2,252	1,602	2,396	2,267

Note: Figures based on HH's self-evaluation.

Table 8.8 shows that around 20-25 percent of households reported large impacts and 50 percent reported moderate impacts of extension information on their decisions about crop production, raising livestock or on selling prices. The effect of information on aquaculture and other agricultural issues are much less important. The numbers suggest that there may be unmet demand for extension services, though establishing this will require further investigation into the supply of, and demand for, these services in rural areas.

Table 8.9 shows an important role of extension information in helping households to cope with shocks. The proportion of households that faced shocks and did not receive extension information is very small (nearly 10 percent). Among them, only 35 percent fully recovered and 27 percent did not recover from the shock. Recovery was much better among households that received extension information (51.5 percent fully recovered and 18 percent did not recover).

Table 8.9: Recovery after Shocks, 2012 (percent)

	HH not received extension information	**HH received extension information**
Fully recovered	35.0	51.5
Partly recovered	40.0	46.0
Not recovered	27.0	18.0
No. of observations	100	1,000

Public transfers can also be an important buffer for households to reduce the adverse effects of income shocks. In the 2012 survey, the percentage of households receiving public transfers was remarkably higher for the group that faced shocks than for those that did not (55.4 percent compared to 38.4 percent). This shows that, to some extent, public transfers were given to the right beneficiaries that were actually in need of supports. Disaggregating the different reasons for public transfers in Table 8.10 disaggregated by households that did and did not face shocks reveals that the proportion of households that received transfers for educational expenses, healthcare expenses, for poverty alleviation and ethnic minorities among shocked households were 9.0 percent, 14.7 percent, 19.2 percent and 12.4 percent, respectively. The relevant figures for the households that did not experience shocks were

much smaller at 2.1 percent, 6.1 percent, 11.7 percent and 4.1 percent, respectively. There is no evidence that households that received public transfers recovered better than those that did not (the percentage of households that fully recovered from shocks and received transfers was 47.9 percent compared with 53.8 percent of households that fully recovered and did not receive transfers). This might be because the group that received public transfers were worse affected by shocks, or are poorer or more disadvantaged making it more difficult for them to cope.

Table 8.10: Reasons of Public Transfers, 2012 (percent)

	HH faced shocks	HH did not face shocks
No specific reason	1.1	2.0
Educational expense	2.1	9.0
Healthcare expense	6.1	14.7
Raising children	0.6	0.9
Wedding/funeral expense	0.7	0.6
Investment	0.3	0.3
Pension	7.4	6.7
Poor households	11.7	19.2
Ethnic minority	4.1	12.4
Other reasons	14.4	14.9
No. of observations	1,641	1,100

8.9 Summary

The evidence presented in this chapter suggests that between 2010 and 2012 households in the VARHS sample were less likely to have experienced a negative shock than in previous survey rounds, but the shocks that were experienced had more severe effects on household income. By this measure, the worst-affected provinces were Lao Cai, Dien Bien, Dak Lak, Dak Nong, Lam Dong and Khanh Hoa. These provinces could be prioritized for future policy interventions aimed at helping vulnerable households cope with unexpected income losses.

In all provinces, households in lower food expenditure quintiles (and therefore poorer), with less educated household heads, or of non-Kinh ethnicity, suffered larger income shortfalls when exposed to shocks than other groups.

The majority of households continued to use internal or self-reliant coping mechanisms to deal with shocks and only 50 percent of the households reported fully recovering from shocks. Wealthier households and those with higher educational attainment used more coping mechanisms and recovered better than other groups.

Examining three important financial instruments, including savings, insurance, and credit, we observed that households relied more heavily on informal savings and loans. Almost all households had an insurance instrument of some kind (around 90 percent), but this mainly reflects free insurance coverage provided by the state, and many households were not able to

successfully make insurance claims following a negative shock.

Despite limited access to, and impact of, extension services, evidence has shown a role for services in helping rural households to cope with shocks. The distribution of public transfers also appears to be important, but more in-depth analysis is needed to examine the effectiveness of those supports. The data presented in this chapter suggest that it is necessary to further develop extension services and public transfers to serve the needs of rural households and act as a buffer for them to cope with shocks.

Overall, the evidence suggests that rural households continue to be exposed to unexpected shortfalls in income that have potentially long-run effects on their welfare.

As Vietnam's economy continues to expand, rising inequality threatens to create a divide between those benefiting from this growth and those left behind. Implementing appropriate policies to bolster rural households' coping and risk-sharing mechanisms will prevent these households from falling into long-run poverty traps due to unexpected bad events, ultimately providing a safety net to support shared, broad-based, and equitable economic progress.

References

CIEM (2011a) "Income Shocks and Household Risk-Coping Strategies: The Role of Formal Insurance in Vietnam", in-depth study, DANIDA project.

CIEM (2011b) "The Availability and Effectiveness of Credit in Rural Vietnam: Evidence from the Vietnamese Access to Resources Household Survey 2006-2008-2010", in-depth study, DANIDA project.

Vietnam Academy of Social Sciences (VASS) (2011) "Poverty Reduction in Vietnam: Achievements and Challenges", World Bank.

CHAPTER 9: MIGRATION

9.1 Introduction

Twenty-five years after the 'Doi Moi' process, Vietnam has experienced a significant economic transformation with high rates of economic growth that has accelerated the flow of internal and external migration (UNFPA, 2011). Migration, especially in-country migration and urbanization, have played an important role in the process of economic development. According to UNFPA (2011), based on the results of the AgroCensus 2009, migrants between Vietnamese provinces increased from 1.3 million people in 1989 to 2 million in 1999 and jumped up to 3.4 million people in 2009.[24] Migrants from rural areas are an important source of labour for industrial areas and, in particular, foreign investors operating in economic zones. Moreover, new employment and income-earning opportunities for migrants can provide sending households with a new source of income with which to improve their livelihoods.

Migrants have made an important contribution to socio-economic development in Vietnam, but the increase in migration creates new social issues in sending and receiving communities that require the attention of authorities at all levels. There is also evidence to suggest that Vietnamese migrants still face many challenges and difficulties in acclimatizing and adapting. For example, UNFPA (2010) highlights the fact that temporary migrants suffer from persistent discrimination in employment with insecure jobs, lower salaries, and usually no medical or unemployment insurance. In addition, migrants have less access to public services compared to the locals because these services are usually provided only to registered inhabitants. As a result, migrants usually have to pay more for basic services such as healthcare and education. This is particularly notable in urban areas and increases the extent of poverty and inequality facing migrants.

The situation is much more serious for vulnerable migrant groups such as children, old people or woman. The imbalance or instability created in societies and communities that migrants move into or out of has attracted the interest and concern of researchers and policy makers. The inclusion of a new section on migration in the 2012 VARHS survey will help in our understanding of the nature and extent of migration in Vietnam and will allow some of these issues to be explored. It should be noted, however, that in the VARHS survey we focus on sending households and not on the migrants themselves and so our analysis relates to the impact on the sending communities. Moreover, we do not collect information on migration organized by the Government and so we cannot draw conclusions or make recommendations regarding the impact of policies/programmes or other activities organized by the government on migrants.

24 According to a report on the findings from the Agrocencus survey (GSO), the total number of within-country migrants increased from 4.5 million in 1989 to 6.5 million in 2009.

9.2 Extent of Migration

This section describes the extent of migration from households included in the 2012 round of the VARHS survey. Table 9.1 reveals that nearly 20 percent of households have at least one household member who has migrated but there is a large amount of variability in migrant numbers across provinces. Nghe An has the highest proportion of households with a migrant, possibly because it is geographically and economically remote, and has a large share of relatively poor households.

Table 9.1: Incidence of Migration (percent)

	HH has a migrant	Of which:	
		Permanent	Temporary
Total 2012	19.6	22.7	63.8
Province 2012			
Ha Tay (n=587)	18.7	14.5	75.5
Lao Cai (n=106)	17.9	31.6	52.6
Phu Tho (n=383)	17.2	21.2	59.1
Lai Chau (n=135)	7.4	10.0	90.0
Dien Bien (n=130)	13.8	44.4	50.0
Nghe An (n=229)	46.3	28.3	67.0
Quang Nam (n=340)	27.1	27.2	46.7
Khanh Hoa (n=110)	20.9	8.7	73.9
Dak Lak (n=164)	18.3	13.3	86.7
Dak Nong (n=143)	16.1	47.8	39.1
Lam Dong (n=80)	20.0	0.0	68.8
Long An (n=334)	7.8	15.4	57.7
Food expenditure quintile (2012)			
Poorest (n=546)	11.7	25.0	65.6
2nd poorest (n=544)	16.9	28.3	57.6
Middle (n=542)	21.6	28.2	56.4
2nd richest (n=540)	20.4	20.9	67.3
Richest (n=542)	28.4	14.9	68.2
Ethnicity of HH head			
Non Kinh (n=565)	12.0	25.0	64.7
Kinh (n=2,176)	21.6	22.4	63.7

N= 2,721

Note: Row entries do not add up to 100 because a share of respondents was unsure about whether their family members had migrated permanently or temporarily.

Table 9.1 also shows that 22.4 percent of households with a migrant have a permanent migrant while 63.5 percent of these migrants leave the household on a temporary basis. Permanent migration mainly occurs in mountainous provinces and far from industrial centres, for example, Dak Nong (48 percent), Dien Bien (44 percent) and Lao Cai (32 percent).

Permanent migration is less likely for households in central or relatively urbanized regions such as ex-Ha Tay and Khanh Hoa.

The relationship between the propensity for a household member to migrate and income has been shown in existing research to be non-linear, following an inverse U-shape with "migration humps" at low and high income levels (de Hass, 2007; Nguyen, et al., 2008). As illustrated in Table 9.1, the relationship between the economic status of households (as measured by food expenditure quintile) and migration depends on the type of migration in question. Temporary migration seems to follow the U-shape with a higher proportion of migrants in the group of richest and poorest households. In contrast, the percentage of permanent migrants is lower for both of these groups of households. Overall, better off households have a higher probability of having a migrant but this is mostly due to temporary migration.

Table 9.2 summarizes the reasons given by households as to why their household members migrated. Among the households with a migrant, 47 percent of households report that their members migrated for job opportunities, 42 percent for schooling and 16 percent for marriage. These findings are in line with UNFPA (2010) which shows that migration for work is most common from areas dominated by agricultural production with a lack of income-generating employment opportunities.

Table 9.2: Reasons for Migration 2012 (percent)

	Job opportunities	Job search	Schooling	Army service	Marriage	Family unification
Total (n=533)	46.7	1.9	41.7	5.4	15.9	0.9
Province						
Ha Tay (n=110)	52.7	0.9	41.8	2.7	10.0	0.0
Lao Cai (n=19)	52.6	0.0	15.8	10.5	21.1	0.0
Phu Tho (n=66)	36.4	1.5	42.4	7.6	18.2	1.5
Lai Chau (n=10)	10.0	10.0	70.0	0.0	10.0	0.0
Dien Bien (n=18)	50.0	0.0	33.3	5.6	22.2	0.0
Nghe An (n=106)	77.4	1.9	23.6	5.7	15.1	2.8
Quang Nam (n=92)	30.4	2.2	52.2	5.4	20.7	1.1
Khanh Hoa (n=23)	30.4	4.3	69.6	4.3	13.0	0.0
Dak Lak (n=30)	40.0	3.3	56.7	10.0	6.7	0.0
Dak Nong (n=23)	39.1	4.3	43.5	0.0	21.7	0.0
Lam Dong (n=16)	12.5	0.0	75.0	12.5	0.0	0.0
Long An (n=26)	42.3	0.0	19.2	3.8	34.6	0.0
Total (n=539)	**46.7**	**1.9**	**41.4**	**5.4**	**16**	**0.9**
Food expenditure quintile						
Poorest (n=64)	42.2	0.0	35.9	9.4	15.6	1.6
2nd poorest (n=92)	44.6	2.2	35.9	6.5	20.7	1.1
Middle (n=117)	56.4	0.0	35.0	3.4	16.2	0.0
2nd richest (n=110)	44.5	0.9	41.8	8.2	16.4	1.8
Richest (n=154)	44.8	4.5	51.3	2.6	13.0	0.6
Total (n=539)	**46.9**	**1.9**	**41.3**	**5.4**	**16.0**	**0.9**
Ethnicity of HH head						
Non Kinh (n=68)	38.2	1.5	39.7	7.4	14.7	0.0
Kinh (n=465)	48.0	1.9	41.9	5.2	16.1	1.1

Note: Since households can have more than one migrant the rows of this table can add up to more than 100 percent.

There is considerable variability in the reasons for migration across provinces. This variability is closely correlated with the extent of temporary versus permanent migration in different provinces. For example, temporary migration is mainly for schooling or for army service, so these are common reasons for migration in Lam Dong which has a high rate of temporary migration. Moreover, marriage and family unification are the main reasons given for permanent migration and so in provinces where permanent migration is more common, such as Dien Bien or Dak Nong, for example, these are more likely reasons for migration. The small sample size should be kept in mind, however, when interpreting these statistics.

It is also clear from Table 9.2 that migration for schooling is most likely for households in higher expenditure groups suggesting that there may be fewer opportunities for poor households to access higher education outside of their local area. Migration for job opportunities and marriage are most common for the middle and poorest households.

Table 9.3 presents the destination of migrants disaggregated by migration: i) within the same province; ii) to other provinces in Vietnam; and iii) to a foreign country. The proportion of households that have at least one member migrating to the same province varies greatly across provinces ranging from only 3 percent in Dak Nong up to 83.6 percent in Ha Tay. This may be attributed to the fact that Ha Tay was merged into Hanoi in 2008 and since merging a large number of people from Ha Tay moved to the peri-urban areas while others sold their residential property and moved to other sites, benefiting from the increase in property and/or land prices during this time. Only a small proportion of households have migrants that moved from Ha Tay to other provinces (15.7 percent).

A lot of within-province migration is also observed in Dien Bien (81.5 percent). Within Dien Bien, a significant amount of population redistribution has occurred due to the relocation of a large number of ethnic minority households to the Muong Nhe district, where there are greater economic opportunities, in particular in forestry.[25] For the other provinces, most of the migration observed is to other provinces. The highest rates are observed in the poorer provinces of Dak Nong, Phu Tho and Lai Chau at 97, 76 and 69 percent, respectively. In Nghe An, for example, a very small proportion of households have a member that migrates within the province. Coupled with the fact that the main reason for migration from Nghe An is for job opportunities, the lack of within-province migration is likely to reflect the common occurrence of typhoons and storms in Nghe An, leading to higher risks and unstable production in rural area of this province.

In most provinces there are no households that have migrants to foreign countries. Exceptions are Dien Bien, Nghe An, and ex-Ha Tay with 3.7, 1.2, and 0.7 percent, respectively, of migrants moving abroad.

The destination of migrants is similar across food expenditure quintiles. While it is only better-off households that have members who migrate abroad, the proportion is still very low at less

25 Quang Vinh-Quang Vũ, "Rừng và người di cư tự do ở Mường Nhé, Điện Biên" http://www.baomoi.com/Rung-va-nguoi-di-cu-tu-do-o-Muong-Nhe-Dien-Bien/58/6304908.epi. Accessed June 03, 2013.

than 2 percent. It is likely that only households in the richest food expenditure quintiles have the financial capacity to fulfil the requirements for legal migration or for studying abroad, making cross-country migration possible only in this group.

Table 9.3: Destination of Migrants 2012 (percent)

	To the same province	Other Provinces	Foreign country
Total (n=727)	43.6	55.8	0.6
Provinces			
Ha Tay (n=140)	83.6	15.7	0.7
Lao Cai (n=24)	54.2	45.8	0.0
Phu Tho (n=80)	23.8	76.3	0.0
Lai Chau (n=13)	30.8	69.2	0.0
Dien Bien (n=27)	81.5	14.8	3.7
Nghe An (n=163)	33.1	65.6	1.2
Quang Nam (n=124)	33.1	66.9	0.0
Khanh Hoa (n=33)	48.5	51.5	0.0
Dak Lak (n=46)	34.8	65.2	0.0
Dak Nong (n=33)	3.0	97.0	0.0
Lam Dong (n=18)	38.9	61.1	0.0
Long An (n=35)	40.0	60.0	0.0
Food expenditure quintile			
Poorest (n=78)	44.9	55.1	0.0
2nd poorest (n=120)	48.3	51.7	0.0
Middle (n=163)	45.4	54.0	0.6
2nd richest (n=150)	40.7	58.0	1.3
Richest (n=225)	42.7	56.9	0.4
Gender of HH head			
Female (n=134)	48.5	50.7	0.7
Male (n=602)	43.0	56.5	0.5
Ethnicity of HH head			
Non Kinh (n=84)	53.6	45.2	1.2
Kinh (n=643)	42.3	57.2	0.5

Migrants from non-Kinh households are more likely to stay within the same province (53.6 percent of households with a migrant) while migrants from Kinh-households are more likely to go to other provinces (57.2 percent). This is suggestive of fewer migration opportunities for ethnic minorities.

9.3 Characteristics of Migrants

This section considers the characteristics of migrants. All statistics are presented at the migrant level. As revealed in Table 9.4, in general, most of the migrants are relatively young with an

average age of 24.7. This result aligns with the fact that the main reasons for migration are job opportunities and schooling. The highest average age is in Long An province (28) where the proportion of migration for marriage is also very high.

Also in Table 9.4 we see that 51 percent of migrants are male and 49 percent of are female. In the North and North Centre Coast provinces, male migration is higher than male migration, while female migration is more common in the South Centre Coast and the South provinces. There is no clear pattern of migration across gender split by food expenditure quintile, although migrants from households in the poorest quintile are most likely to be male.

The marital status of migrants is presented in Table 9.5. Most migrants are single (67 percent). Long An is the only province that has more migrants that are married than single. As mentioned above, this is also the province with the highest proportion of migration for marriage and the highest average age of migrants. Table 9.5 also shows that migrants in poorer groups are more likely to be widowed in comparison with the richer groups.

Table 9.4: Age and Gender of Migrants

	Age (years)	Female (percent)	Male (percent)
Total (n=765)	24.7	49.0	51.0
Province 2012			
Ha Tay (n=147)	26.9	48.3	51.7
Lao Cai (n=25)	24.6	48.0	52.0
Phu Tho (n=84)	23.6	42.9	57.1
Lai Chau (n=13)	21.5	46.2	53.8
Dien Bien (n=27)	22.5	44.4	55.6
Nghe An (n=177)	25.5	43.5	56.5
Quang Nam (n=124)	23.5	53.2	46.8
Khanh Hoa (n=33)	22.5	57.6	42.4
Dak Lak (n=46)	23.3	52.2	47.8
Dak Nong (n=33)	22.8	51.5	48.5
Lam Dong (n=19)	20.6	63.2	36.8
Long An (n=37)	28.3	59.5	40.5
Food expenditure quintile			
Poorest (n=82)	24.5	50.0	50.0
2nd poorest (n=126)	24.1	54.0	46.0
Middle (n=167)	24.9	43.7	56.3
2nd richest (n=153)	24.6	49.0	51.0
Richest (n=235)	25.0	49.8	50.2

Table 9.5: Marital Status of Migrants (percent)

	Single	Married	Widow	Divorced
Total (n=765)	**67.0**	**30.4**	**1.0**	**1.6**
Province 2012				
Ha Tay (n=147)	66.7	29.3	3.4	0.7
Lao Cai (n=25)	60.0	40.0	0.0	0.0
Phu Tho (n=84)	67.9	26.2	0.0	6.0
Lai Chau (n=13)	92.3	7.7	0.0	0.0
Dien Bien (n=27)	63.0	29.6	0.0	7.4
Nghe An (n=177)	60.5	37.9	0.6	1.1
Quang Nam (n=124)	69.4	29.8	0.8	0.0
Khanh Hoa (n=33)	78.8	18.2	3.0	0.0
Dak Lak (n=46)	84.8	15.2	0.0	0.0
Dak Nong (n=33)	69.7	27.3	0.0	3.0
Lam Dong (n=19)	100.0	0.0	0.0	0.0
Long An (n=37)	35.1	62.2	0.0	2.7
Total (n=765)	**66.9**	**30.5**	**1.0**	**1.6**
Food expenditure quintile				
Poorest (n=33)	70.7	24.4	2.4	2.4
2nd poorest (n=132)	62.7	34.9	0.8	1.6
Middle (n=134)	62.9	34.7	1.2	1.2
2nd richest (n=194)	64.1	34.6	1.3	0.0
Richest (n=272)	72.8	24.3	0.4	2.6

The level of education of migrants is presented in Table 9.6. Most migrants have a high level of education or are still in school with about 38 percent of migrants having completed upper secondary education level and 37 percent still attending school (or migrating for schooling). Approximately 20 percent of migrants have completed lower secondary education. In Vietnam, rural-urban migration accounts for most domestic migration and many migrants move to cities to work in industrial zones in garment or shoe factors (GSO, 2012). To obtain contracts for these positions, workers must have completed secondary school education. Rural residents who have achieved upper secondary school therefore have a higher probability of migration.

In the VARHS sample, Dak Lak appears to be a special case where the number of migrants that have only completed lower secondary school is higher than the number that has completed upper secondary school. In contrast, the North Mountain provinces of Lao Cai, Lai Chau and Dien Bien have the highest proportion of migrants with lower education levels (cannot read/ write or just completed primary school).

Table 9.6: Education Level of Migrants (percent)

	Cannot read and write	Completed lower primary	Completed Lower secondary	Completed Upper secondary	Can read and write but never went to or did not finish primary school	Still in school
Total (n=762)	0.9	3.5	19.4	38.5	0.3	37.4
Province 2012						
Ha Tay (n=146)	0.0	2.1	14.4	45.9	1.4	36.3
Lao Cai (n=25)	4.0	8.0	12.0	44.0	0.0	32.0
Phu Tho (n=84)	0.0	3.6	15.5	35.7	0.0	45.2
Lai Chau (n=13)	7.7	7.7	0.0	7.7	0.0	76.9
Dien Bien (n=27)	3.7	3.7	22.2	40.7	0.0	29.6
Nghe An (n=177)	1.1	4.5	28.2	46.3	0.0	19.8
Quang Nam (n=123)	0.0	0.8	18.7	33.3	0.0	47.2
Khanh Hoa (n=33)	3.0	3.0	3.0	30.3	0.0	60.6
Dak Lak (n=46)	0.0	0.0	28.3	26.1	0.0	45.7
Dak Nong (n=33)	0.0	0.0	18.2	39.4	0.0	42.4
Lam Dong (n=19)	0.0	0.0	5.3	15.8	0.0	78.9
Long An (n=37)	2.7	18.9	29.7	32.4	0.0	16.2
Food expenditure quintile						
Poorest (n=82)	4.9	11.0	18.3	28.0	1.2	36.6
2nd poorest (n=126)	1.6	3.2	22.2	36.5	0.0	36.5
Middle (n=167)	0.0	4.8	25.1	41.3	0.0	28.7
2nd richest (n=153)	0.7	2.0	15.1	44.1	0.7	37.5
Richest (n=235)	0.0	1.3	16.7	37.6	0.0	44.4
Ethnicity of HH head						
Non-Kinh (n=86)	3.5	8.1	20.9	24.4	0.0	43.0
Kinh (n=676)	0.6	3.0	19.2	40.2	0.3	36.7

The relationship between expenditure quintile and the education level of migrants is also presented in Table 9.6. Migrants from better off households have achieved a higher level of education with a higher proportion of migrants having completed upper secondary school. In contrast, for lower education levels (cannot read/write, did not go to or finish primary school or even just completed primary school), the proportion of migrants in the poor household group is, unsurprisingly, higher than in the better off household group. Kinh migrants have a higher level of education than the non-Kinh migrants with the proportion of Kinh migrants that have completed upper secondary school at 40 percent compared to 24.4 percent of non-Kinh migrants.

Table 9.7 focuses on the level of professional training of migrants. It illustrates that 63 percent of migrants do not have any professional training, but about 16 percent of migrants have achieved a Bachelor's degree. On the other hand, the proportion of migrants that have attended vocational training is very low at 2.7 percent. This may be an important issue for policy makers who have in recent years attempted to improve the skills of rural labour through various training programmes in an attempt to create a more stable life for rural-city

migrants through higher skilled jobs.[26]

Table 9.7: Professional Training of Migrants (percent)

	No diploma	Short-course vocational training	Vocational training	College certificate	University or higher level
Total (n=765)	62.5	13.4	2.8	5.2	16.1
Province 2012					
Ha Tay (n=147)	54.4	11.6	3.4	7.5	23.1
Lao Cai (n=25)	88.0	8.0	0.0	4.0	0.0
Phu Tho (n=84)	63.1	10.7	1.2	4.8	20.2
Lai Chau (n=13)	100.0	0.0	0.0	0.0	0.0
Dien Bien (n=27)	63.0	11.1	3.7	11.1	11.1
Nghe An (n=177)	52.5	21.5	4.0	4.0	18.1
Quang Nam (n=124)	69.4	8.1	2.4	5.6	14.5
Khanh Hoa (n=33)	81.8	9.1	0.0	0.0	9.1
Dak Lak (n=46)	76.1	8.7	0.0	0.0	15.2
Dak Nong (n=33)	63.6	6.1	0.0	9.1	21.2
Lam Dong (n=19)	89.5	0.0	0.0	10.5	0.0
Long An (n=37)	37.8	40.5	10.8	5.4	5.4
Total (n=765)	62.5	13.5	2.7	5.2	16.1
Food expenditure quintile					
Poorest (n=82)	74.4	7.3	1.2	4.9	12.2
2nd poorest (n=126)	61.9	13.5	3.2	4.8	16.7
Middle (n=167)	67.7	12.0	4.2	4.2	12.0
2nd richest (n=153)	60.8	14.4	2.6	7.8	14.4
Richest (n=235)	56.2	15.7	2.1	4.7	21.3

Lai Chau is the only province that has no migrant with any type of professional training. It should be noted, however, that a high percentage of migrants from this province are still in the school (Table 9.6). The highest proportion of migrants with professional training is in Long An province (60 percent) which is unsurprising given that the average age of migrants from this province (28.3) is much higher than that of migrants from other provinces.

Table 9.8 explores the extent of land and property ownership of migrants by province, by household quintile group and by ethnicity of the household head. Property ownership among migrants is most common within their home commune (13.2 percent of migrants own agricultural land in their own commune while 6.8 percent own residential land in their own commune). One possible reason for maintaining ownership even after migrating is that while many migrants move location to find a job, they keep their land and property in their home commune as a form of insurance in case they are not successful or do not have a better life in the place they migrate to. Another possible explanation is that migrants leave with the expectation that they will return in the future.

26 Many projects and programs on employment creation and vocational training have been carried out in the implementation of the Prime Minister Decision (1956/QD-TTg on November 27, 2009) on approving the scheme on vocational training for rural labourers up to 2020.

Table 9.8: Migrant Ownership of Agricultural Land or Residential Property (percent)

	Agricultural land owned:			Residential property owned:		
	In home commune	In the living commune	In the other communes	In home commune	In the living commune	In the other communes
Total 2012(n=762)	13.2	2.6	0.3	6.8	2.5	0.0
Province						
Ha Tay (n=147)	13.6	4.8	0.7	9.5	5.4	0.0
Lao Cai (n=25)	5.3	1.7	0.0	0.0	4.0	0.0
Phu Tho (n=84)	0.0	2.4	0.0	1.2	3.6	0.0
Lai Chau (n=13)	3.6	7.1	0.0	7.7	0.0	0.0
Dien Bien (n=27)	1.8	3.6	1.8	3.7	7.4	0.0
Nghe An (n=177)	41.2	3.9	0.0	18.1	1.1	0.0
Quang Nam (n=124)	1.6	0.8	0.0	0.8	1.6	0.0
Khanh Hoa (n=33)	3.0	0.0	0.0	3.1	0.0	0.0
Dak Lak (n=46)	1.1	2.1	1.1	0.0	2.2	0.0
Dak Nong (n=33)	1.6	0.0	0.0	0.0	0.0	0.0
Lam Dong (n=19)	0.0	0.0	0.0	0.0	0.0	0.0
Long An (n=37)	5.4	2.7	0.0	2.7	0.0	0.0
Food expenditure quintile						
Poorest (n=82)	18.3	4.9	1.2	6.1	0.0	0.0
2nd poorest (n=126)	7.9	2.4	0.0	3.2	2.4	0.0
Middle (n=167)	15.6	3.0	0.0	6.0	3.0	0.0
2nd richest (n=153)	12.4	3.9	0.6	7.8	5.2	0.0
Richest (n=235)	12.8	0.8	0.0	8.5	1.3	0.0
Ethnicity						
Non-Kinh (n=86)	4.6	3.5	1.3	2.3	4.6	0.0
Kinh (n=676)	14.3	2.5	0.1	7.4	2.2	0.0

Land and property ownership by migrants is particularly high in Nghe An, at 1.2 and 18.1 percent, respectively. Land and property ownership is also high in ex-Ha Tay (at 13.6 and 9.5 percent, respectively). The proportion is particularly low in Lam Dong with none of the migrants from this province having any kind of ownership of land or property. In general, few migrants own agricultural land outside of their home.

Ownership of land and property may provide some indication of the extent to which migrants plan on settling or have settled in their new place of residence. If, for example, migrants have land and property in their new place of residence, it suggests that they have decided to settle there for the long term and that they have better integrated into community/society. Migrants from Lai Chau, for example, are more likely to have land and property in other communes (7.1 percent) than in their home commune (3.6 percent) suggesting that compared with migrants from other provinces these migrants may be more settled. Migration from ex-Ha Tay and Dien Bien also appears to be more permanent given that there is a higher rate of land and property

ownership among migrants in other communes rather than in their home commune (4.8 and 5.4 percent, respectively, for Ha Tay, and 3.6 and 7.4 percent, respectively, for Dien Bien).

Owning land and property in the commune that the migrant has moved to and lives in might also be suggestive of the extent of success of the migrant. Migrants from Ha Tay, Lai Chau and Dien Bien appear most successful in this regard. None of surveyed migrants reported that they have residential property in other communes.

We find that migrants from the poorest households tend to own more agricultural land than other groups (in their homeland, in the commune that they live in and in other communes). However, the poorest households own less residential property in the place where they have migrated to (and live) suggesting that migrants from poor households have less stability in their new communities than wealthier migrants.

By ethnicity, a higher proportion of Kinh migrants own land or property in their home commune in comparison with the non-Kinh group. In contrast, the proportion of households that own land and property in the commune they are living in is higher in the non-Kinh group. This suggests that migrants of non-Kinh ethnicity are somewhat more likely to settle permanently once they migrate compared with Kinh migrants.

9.4 Migrant livelihoods

In this section we explore the livelihoods and income status of migrants and the role of networks and information in supporting migration. Table 9.9 reveals that out of those who migrated for a job, 57 percent looked for a job by themselves, 30 percent received information on jobs from family/friends while 7 percent sought information from private or public job agencies. The older the migrants, the less likely they are to have looked for a job through job services or media. It is more common for young migrants to find a job through the media.

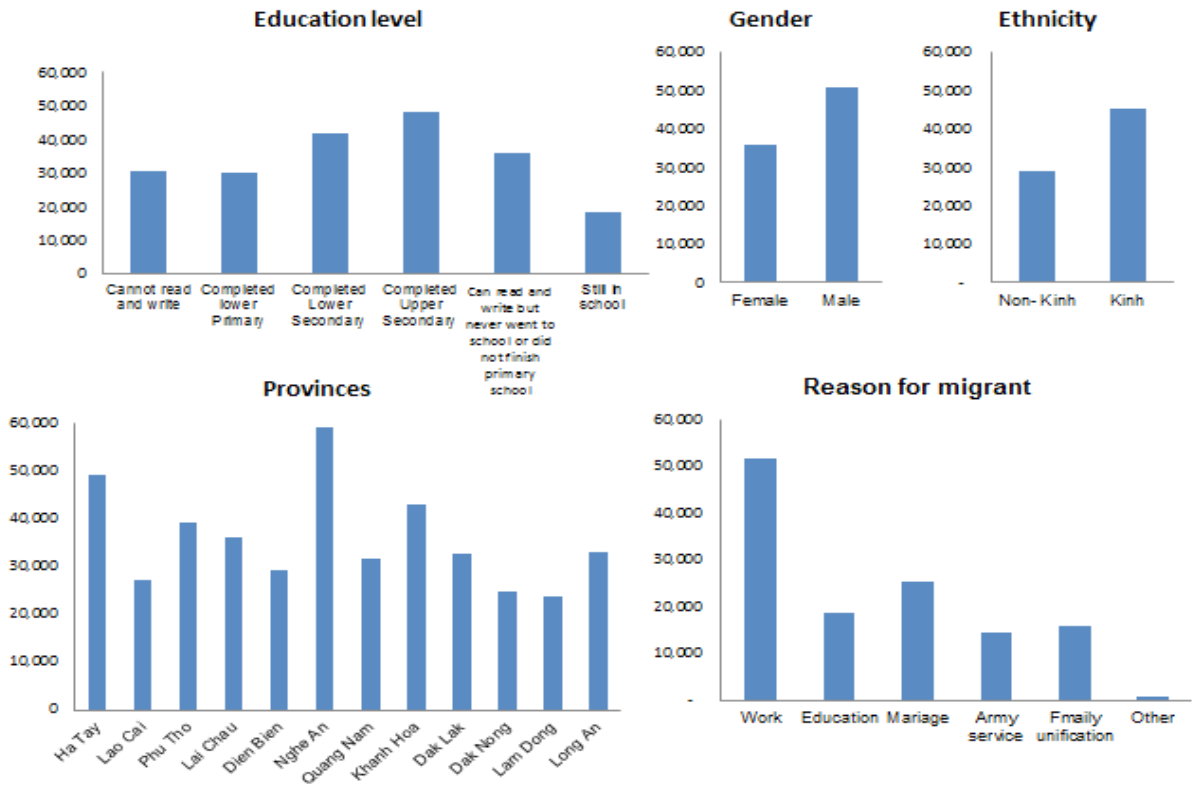
Table 9.9: Job Investigation Channel (percent)

	Own investigation	Relatives/ Friends	Job services	Media	Other/don't know
Total 2012 (n=765)	56.5	30.0	6.1	0.5	7.0
Gender of migrants					
Female	58.9	28.4	5.1	0.5	7.1
Male	54.5	31.3	6.9	0.4	6.9
Age of migrants					
Age>30	54.0	31.2	6.5	0.6	7.7
30=<Age<40	59.5	31.1	6.8	0.0	2.7
Age>=40	75.0	15.6	0.0	0.0	9.4

Granovetter (1973) examines the relationship between the strength of a social network and job prospects. He argues that a personal network with weak ties increases the probability of finding a job to a greater extent than networks with strong ties. Strong ties include family

members and close friends. The individuals within a network based on strong ties tend to be similar and to have access to the same information. As close friends or family mostly live in the same area there tends to be a lot of overlap in the people they interact with and hence, the information that is transmitted through the network. Individuals are therefore more likely to already have the information that is available through a network with strong ties. If we define networks with "relatives or friends" as strong ties, our results contrast to some extent with Granovetter's hypothesis by suggesting that networks with strong ties are the most effective in the job search process for Vietnamese migrants. Future in-depth research will more closely investigate the channels through which migrants learn about job opportunities and the extent to which social networks and ties impact on this process.

Figure 9.1: Average Migrant Income ('000 real VND)



N = 438

The income of migrants as reported by the sending household is presented in Figure 9.1. The total income of migrants is not available in the data so only the income earned from working is presented. The average income of migrants in the sample is 43.5 million VND per year. This average varies by the migrant's education level, gender, and reason for migration. Unsurprisingly, the migrants that completed secondary school earn a higher income than migrants with less education. Migrants who are "still in school" have the lowest income (18 million VND) from working. This result is in line with the finding that the younger migrants (less than 30 years old) have much lower income compared to the older migrants. The income

of male migrants is much higher than that of female migrants, reflecting perhaps some gender inequality in the job market in Vietnam. Similarly, the average income of non-Kinh migrants is much lower in comparison with the Kinh group.

Over 25 percent of households that have migrants receive remittances but there is some variation across provinces. For example, in Nghe An over half of the households that have a migrant receive remittances while this figure is only 6 percent for migrant households in Lam Dong only. Notably, migrants from Nghe An have the highest earned income levels

Table 9.10: Purpose of Remittances (percent)

	Share of HH that has received remittances	Food	Other consumption	Housing	Medical expense	Education expense	Saving
Total 2012 (n=538)	25.3	58.8	26.5	0.7	18.4	13.2	33.8
Province							
Ha Tay (n=110)	11.8	46.2	38.5	0.0	30.8	7.7	30.8
Lao Cai (n=19)	10.5	0.0	0.0	0.0	50.0	0.0	50.0
Phu Tho (n=66)	19.7	53.8	15.4	0.0	15.4	15.4	53.8
Lai Chau (n=10)	10.0	100.0	100.0	0.0	0.0	0.0	0.0
Dien Bien (n=18)	27.8	20.0	40.0	0.0	0.0	0.0	0.0
Nghe An (n=106)	53.8	63.2	19.3	1.8	8.8	17.5	33.3
Quang Nam (n=92)	20.6	63.2	36.8	0.0	15.8	10.5	47.4
Khanh Hoa (n=22)	22.7	40.0	0.0	0.0	40.0	40.0	40.0
Dak Lak (n=30)	16.7	20.0	40.0	0.0	0.0	0.0	20.0
Dak Nong (n=23)	21.7	100.0	20.0	0.0	80.0	0.0	40.0
Lam Dong (n=16)	6.2	0.0	0.0	0.0	0.0	0.0	100
Long An (n=26)	38.5	90.0	50.0	0.0	40.0	10.0	0.0
Food expenditure quintile							
Poorest (n=64)	20.8	46.7	26.7	0.0	6.7	26.7	26.7
2nd poorest (n=92)	20.2	57.1	19.0	0.0	28.6	19.0	33.3
Middle (n=117)	36.1	71.1	36.8	0.0	13.2	7.9	34.2
2nd richest (n=110)	29.2	57.1	21.4	0.0	17.9	10.7	32.1
Richest (n=154)	19.9	51.5	21.2	3.0	24.2	12.1	36.4
HH head sex							
Female (n=103)	28.2	62.1	34.5	0.0	10.3	17.2	34.5
Male (n=435)	24.6	57.9	24.3	0.9	20.6	12.1	33.6
Ethnicity of HH head							
Non Kinh (n=68)	17.6	41.7	33.3	0.0	16.7	16.7	33.3
Kinh (n=470)	26.4	60.5	25.8	0.8	18.5	12.9	33.9

Note: Households receive remittances for more than one purpose, so rows may not sum to 100 percent. The first column shows share of all households receiving remittances. Other columns show share of remittance receiving households receiving remittances for the stated purpose.

Table 9.10 presents statistics on some of the reasons why migrants send remittances to the sending households. Notwithstanding the small sample size, the most common purpose of remittances is for food consumption at 58.8 percent for the overall sample with a particularly high proportion observed in Lai Chau, Dak Nong, and Long An. Savings is the second most important reason why migrants send remittances at 33.8 percent for the overall sample. Khanh Hoa has the highest proportion of households that receive remittances for education

expenses at 40 percent. Nghe An is the only province where households receive remittances for housing.

Households in the middle income group have the highest probability that remittances are sent for food (71 percent) and other consumption (36.8 percent), compared with average rates of 58.8 percent and 26.5 percent for these categories for the whole sample. However, the middle income group of households also has the lowest incidence of remittances for education expenditure. In addition, the probability that remittances are used for education expenses is higher in the poorest household group than among the richest households (26.7 percent compared to 12.1 percent).

As presented in Table 9.11, a high proportion of households visit their family every month or three months while only 10 percent of migrants never visit their family. In fact, most migrants are in regular contact with their families. Given the high level of contact between migrants and family members a higher level of remittance flows would be expected. The possible reasons why this is not the case will be the subject of future in-depth research.

Table 9.11: Relationship between Migrants and Their Families (percent)

	Contact with family:						**Visit family:**				
	Daily	Wkly	Mthly	3-6 mths	Year or more	Never	Wkly	Mthly	3-6 mths	Year or more	Never
Gender of migrant:											
Female (n=374)	7.8	48.1	29.7	8.8	2.7	2.9	10.6	28.9	28.3	23.4	8.8
Male (n=390)	9.7	44.8	32.5	11.0	1.8	0.3	8.5	30.8	33.2	17.2	10.3
Food expenditure quintile:											
Poorest (n=82)	3.7	37.8	36.6	17.1	3.7	1.2	7.2	36.0	26.4	20.0	10.4
2nd poorest (n=126)	4.0	43.7	33.3	12.7	1.6	4.8	10.8	42.3	29.2	10.0	7.7
Middle (n=167)	15.6	37.7	35.9	9.0	1.8	0.0	8.0	32.1	33.9	18.8	7.1
2nd richest (n=153)	6.5	56.2	26.8	5.9	2.6	2.0	12.9	23.4	29.8	22.6	11.3
Richest (n=235)	9.8	50.6	27.7	8.9	2.1	0.9	8.7	19.9	32.3	28.0	11.2
Total (n=763)	**8.8**	**46.4**	**31.2**	**9.8**	**2.2**	**1.6**	**9.5**	**30.2**	**30.4**	**20.3**	**9.7**

9.5 Rural Society and Migration

The VARHS survey also questions households on the types of problems that migrants face in their local communities including accessing land, finding employment, experiencing conflict, accessing education, medical care and the use of social services, cultural differences, and discrimination. Table 9.12 reveals that the biggest problems facing migrants, as viewed by sending households, is access to land (45.1 percent) and finding a job (45.5 percent). Employment and land are the most critical determinants of a migrant settling in the place they migrate to given that both are important for determining the income and livelihoods of the migrants.

In Dak Lak, 64.8 percent of households report that migrants have problems accessing land while 52.7 percent report that they have problems finding employment. In contrast, households in Lai Chau are much less likely to report that migrants experience these problems (25.2 and 31.8 percent, respectively).

Table 9.12: Types of problems faced by Migrants in VARHS Communes, percent

	Access to land	Access to employment	Conflict related to land	Conflict related to employment	Other conflict	Education	Health care	Access to social services	Cultural integration	Discrimination
Ha Tay	38.3	34.5	4.6	4.1	7.0	14.6	14.5	7.1	9.5	2.9
Lao Cai	63.5	51.4	20.6	6.5	17.8	11.2	17.8	13.1	42.1	11.2
Phu Tho	52.0	72.9	2.6	10.3	2.1	28.6	32.9	19.9	18.6	5.8
Lai Chau	25.2	31.8	3.0	0.0	16.3	34.1	32.6	37.8	32.6	3.7
Dien Bien	32.8	38.2	3.0	3.0	15.3	19.8	19.1	8.4	7.6	2.3
Nghe An	53.1	46.9	12.3	10.5	3.1	16.2	14.5	2.2	8.8	15.3
Quang Nam	29.0	35.5	1.8	3.0	6.5	7.1	8.9	3.5	10.6	0.6
Khanh Hoa	41.8	44.5	5.4	1.8	10.0	13.6	2.7	3.6	2.7	1.8
Dak Lak	64.8	52.7	12.7	8.5	6.7	13.9	9.7	17.0	26.7	4.8
Dak Nong	60.1	56.6	2.8	1.4	5.6	7.7	10.5	15.4	4.9	0.7
Lam Dong	38.7	33.7	1.2	0.0	6.2	11.2	0.0	0.0	0.0	0.0
Long An	53.1	44.2	5.9	8.8	12.4	21.8	23.6	18.6	15.3	6.5
Non-Kinh	43.0	46.4	5.7	2.5	11.0	25.0	24.6	19.3	22.5	4.4
Kinh	45.6	45.3	5.6	6.5	7.1	15.2	15.4	10.0	11.9	4.8
Total	45.1	45.5	5.6	5.7	7.9	17.2	17.3	11.9	14.1	4.7

N=2,741

Access to public services such as education, healthcare, and social services also contribute to the problems faced by migrants as perceived by VARHS households with 17.2, 17.3, and 11.9 percent, respectively, of households reporting that migrants from their households experience these problems. Fewer households report that migrants face problems relating to discrimination (4.7 percent), although it is likely that in communes where migrants face discrimination many other related problems such as access to employment, education, public services, and healthcare, will also be problematic. Discrimination against migrants appears to be more prevalent amongst migrants from Lao Cai and Nghe An.

9.6 Summary

Migration is common among VARHS 2012 households: almost 20 percent of households reported having at least one household member who migrated. The proportion of households with temporary migrants is much higher than that of households with permanent migrants. Migration to other provinces is more common than migration within a province but very few migrate abroad. Job opportunities and schooling are the two main reasons for migration.

Most migrants are relatively young with an average age of 24.7 years. Migrants are more likely to be male. Many migrants are single (67 percent) and still in school (37.4 percent). Most migrants (38.5 percent) have completed upper secondary school while only 0.9 percent of migrants cannot read and write. Even though many training programmes for rural labour have been implemented by the Government in recent years, 63 percent of migrants in the survey have not attended any form of professional training. This result suggests that policy makers and implementing agencies need to reconsider the targeting and effectiveness of vocational training programmes.

For employment and income, most migrants look for a job by themselves or through their friends/relatives. Only a small proportion of migrants rely on support from employment services or the media to find a job. This suggests that government programmes in employment promotion have not been effective in VARHS provinces. One implication of this finding is that the effectiveness of programmes aimed at employment creation in rural areas need to be reconsidered and rearranged.

The average income of migrants in the sample is VND 43 million per year with large variations between different groups of migrants. Migrants with higher education levels, that are male or Kinh, and have migrated because of a job opportunity earn a higher income. However, only a small proportion of households with migrants (25 percent, or 4 percent of all households) received remittances from their migrant members despite being in regular contact with each other.

Finally, households report a number of problems that migrants experience in their local communities, suggesting that social problems are more pronounced for migrants relative to other community members. Given the high rates of internal migration taking place now in Vietnam and that they are likely to continue in the future, ensuring support for migrants in receiving communities is an emerging policy challenge for the Government.

References

De Haas, H. 2007, Turning the Tide? Why Development will not Stop Migration, Development and Change, 38(5).819—840

De Haas, H.2007, Remittance, Migration and Social Development- A conceptual Review of the Literature, Social Policy and Development, Programme Paper No 34

Granovetter, Mark S. 1973, The Strength of Weak Ties, American Journal of Sociology, Volume 78, Issue 6.

GSO and UNFPA 2011, Vietnam Population and Housing Census: Migration and Urbanization: Patterns, Trends and Differentials, Hanoi.

GSO, UN and MDGE, 2012, Gender and Remittances from Internal Migrants, Vietnam Statistic Publishing House.

Le et al. 2010 Social Protection for Rural – Urban Migrants in Vietnam: Current Situation, Challenges and Opportunities, Institute for Social Development Studies, SPA Working Papers

UNFPA 2010, Internal Migration in Vietnam; Evidences from Vietnam Population and Housing Census 2009

United Nations in Vietnam 2010, Internal Migration: Opportunities, Challenges to Socio-economic Development in Vietnam.

CHAPTER 10: SOCIAL CAPITAL, SOCIAL PROBLEMS AND HAPPINESS

10.1 Introduction

Social capital exists in the relations between people. Important forms of social capital include trust, norms, and formal and informal social networks (Putnam 1993). Coleman (1988) describes how social capital within the family and in the community can benefit critical outcomes such as human capital formation. This chapter investigates a number of different aspects of social capital, including activities in formal and informal networks, trust and perceptions about the prevalence of phenomena such as drug use, crime, theft, and gambling at the communal level. These may be viewed as indicators of social capital. The chapter also examines perceptions about the levels and sources of happiness. In recent years, economists have increased their focus on empirical studies of happiness (e.g. Layard 2006, Kahneman and Deaton 2010).

Subjective measures of well-being, such as the happiness indicator presented here, may be viewed as a more direct measure of theoretical economic concepts such as "utility" or "welfare" than, say, consumption or income, which economists have traditionally focused on. Subjective measures of happiness have been found to be reliable in terms of assessing a person's well-being. Validity studies have been carried out in which an individual's subjective replies are compared with laboratory experiments that assess the same individual's objective well-being by measuring facial expressions and vocal tones.

So-called "informant" information on an individual's well-being has been collected from relatives to see how well the subjective well-being measures perform. Generally, the subjective well-being measures or happiness measures are highly correlated with measurements of happiness from both laboratory experiments and informant information from a source close to the individual, so subjective measures of happiness are generally considered valid (see e.g. Diener 1984; Veenhoven 1984).

The chapter is structured as follows: Section 10.2 describes households' participation rates in formal groups, the characteristics of these groups and the benefits they yield. Section 10.3 explores informal networks and Section 10.4 describes attitudes towards trust. In Section 10.5 the sources of information used by households are explored. Section 10.6 presents results on perceptions about the severity of problems related to crime, drug use, and gambling. Finally in Section 10.7, results on happiness and perceptions about factors affecting happiness and economic success are presented. Section 10.8 concludes.

10.2 Formal Groups

The largest formal groups in Vietnam are, in addition to the Communist Party, the Youth

Unions, Women's Unions, Trade Unions, and Farmers' Unions. These organizations have an official foundation or status legitimizing their purpose and existence. The unions are also referred to as "mass organizations", acting as social-political groups linking the population to the Communist Party.

Anecdotally, membership in a group like the Youth Union has historically helped to advance members' careers. According to Dalton et al. (2001) participation in social groups supports the development of interpersonal skills needed for the evolution of a modern society. Table 10.1 shows statistics of households' membership of formal groups, with data disaggregated by province, gender of the household head, and food expenditure quintile.

The share of households with at least one member of any group is 88 percent. There is variation across provinces. In Nghe An, located in the North Central Coast, we find the highest share of households with at least one member of any group (99 percent) whereas Long An in the Mekong River Delta has the lowest share of 65 percent. Lao Cai and Quang Nam have a very low prevalence of households that are members of the Communist Party and a relatively high share of households that are members of Farmer's Unions. In the provinces in the Central Highlands we see the highest share of households that are members of the Communist Party (around 17 percent). There is little variation between the probabilities of participating across male- and female-headed households.

In terms of food expenditure quintile, households in the middle and at the top of the distribution have the highest probabilities of being group members. A total of 95.8 percent of the richest households are member of a group compared to 92.0 percent of the poorest. Being richer is significantly positively correlated with group membership. This indicates that richer households have a higher level of social capital, a relationship we return to throughout this chapter.

Table 10.1: Group Membership (percent)

	Household has at least one member of...								
	Any Group	**Communist Party**	**Youth Union**	**Women's Union**	**Farmer's Union**	**Veteran's Union**	**Farmer Interest Group**	**Religious Group**	**Old age Group**
Province									
Ha Tay	88.9	8.2	18.6	63.4	32.0	16.2	4.9	0.5	25.6
Lao Cai	85.0	1.9	9.3	53.3	64.5	11.2	0.9	0.0	14.0
Phu Tho	97.9	11.8	17.8	74.1	55.5	24.6	5.5	6.0	22.3
Lai Chau	82.8	17.2	17.9	59.0	26.1	9.0	0.0	0.0	14.2
Dien Bien	86.9	16.9	16.9	63.8	46.2	16.2	0.0	0.0	17.7
Nghe An	99.1	8.2	19.7	63.4	32.0	11.2	0.0	0.4	29.7
Quang Nam	94.7	1.9	18.6	53.3	64.5	24.6	0.0	0.3	28.4
Khanh Hoa	95.5	11.8	9.3	74.1	55.5	9.0	0.0	0.0	29.5
Dak Lak	83.5	17.2	17.8	59.0	26.1	16.2	2.4	5.5	11.6

Dak Nong	82.1	16.9	17.9	63.8	46.2	11.2	0.0	0.7	11.0
Lam Dong	92.2	8.2	16.9	63.4	32.0	24.6	0.0	1.3	18.2
Long An	65.8	1.9	19.7	53.3	64.5	9.0	0.0	0.6	20.5
Gender of HH head									
Female	86.4	12.4	22.1	66.8	37.3	8.6	3.3	0.6	37.7
Male	88.5	13.5	25.7	71.9	58.5	21.5	3.0	2.6	18.0
Food expenditure quintile									
Poorest	92.0	2.4	11.1	53.9	43.1	6.9	0.3	0.9	24.4
2nd poorest	94.1	7.3	14.0	61.8	45.1	11.7	0.2	2.1	21.2
Middle	95.2	6.9	14.3	64.7	47.3	13.1	0.7	2.7	25.8
2nd richest	94.0	9.8	17.2	59.9	40.2	13.5	2.9	1.1	20.6
Richest	95.8	14.5	21.8	65.0	38.7	14.8	4.5	0.7	20.2

N=2,741

Note: Groups with membership of less than 1 percent are not shown. These groups are: water user association, business association, credit/microfinance, cooperative, sports/cultural groups, and the Red Cross.

In Table 10.2 we present basic characteristics of each of the groups.

Table 10.2: Group Characteristics

Group	Group meets monthly or more often (percent)	Respondent almost always participates in meetings (percent)	Annual fee in 000 VND (median)	Observations
Total 2012	28.2	61.8	15	5.406
Communist Party	41.2	77.3	180	763
Youth Union	41.5	64.0	46,5	1.437
Women's Union	27.7	62.7	60	4.068
Farmer's Union	23.9	61.5	30	3.132
Veteran's Union	25.8	69.8	48	1.097
Farmer interest Group	25.6	57.4	48	176
Religious Group	49.1	72.7	0	161
Old age Group	26.3	58.4	24	1.573

N=5,406 group membership relations.

Some 62 percent of group members state that they "almost always" participate in group meetings. There is significant variation in meeting attendance across different types of groups. The table shows that 28 percent of groups meet monthly or more often, and the Communist Party, Youth Union, and religious groups meet most frequently.

Table 10.3 investigates the reasons underlying group membership.

Table 10.3: Benefits from Group Membership (percent)

What is the main benefit from joining this group? (percent)								
Group	**Benefits the community**	**Economic benefits**	**Social status and relations**	**Entertainment**	**Health benefits**	**Increase knowledge**	**Other**	**No benefit**
Total 2012	36.8	9.3	9.4	19.1	6.2	14.7	3.3	0.7
Communist party	39.2	6.7	22.9	11.5	3.7	14.6	0.6	0.7
Youth union	36.0	8.7	8.8	18.2	4.8	15.2	7.8	0.5
Women's union	36.7	9.7	9.0	18.2	4.9	17.4	3.1	1.1
Farmer's union	33.9	11.7	7.6	16.4	4.8	21.4	3.1	1.1
Veteran's union	34.8	6.0	12.0	21.9	5.1	16.8	2.9	0.5
Farmer interest group	16.8	7.1	14.1	37.5	2.7	13.6	6.0	2.2
Religious group	42.9	0.6	12.4	17.5	4.0	19.2	3.4	0.0
Old age group	32.6	7.6	8.1	25.8	9.3	11.3	4.5	0.8

N=5,406 group membership relations

Households consider "benefits to the community" as the most important reason for joining a group, especially for religious groups and the Communist Party. This may indicate that individuals do not participate exclusively in their own interest, but also for altruistic reasons.

The second and third most important benefit from group membership is entertainment and increasing knowledge. Social status and relations are important benefits for joining the Communist party and the Veteran's union.

10.3 Informal Networks

In the former section formal networks were explored. In this section we consider informal networks. Informal networks differ from formal networks as they emerge from private initiative. These networks may act as a substitute for formal insurance and credit.

This section presents statistics on important social capital factors such as having someone to turn to in case of emergency, as well as indicators for social networks represented by the number of weddings a household attends.

Table 10.4 shows the share of households that report they have someone they can turn to for financial assistance in case of an emergency, and also the share of such helpers that are relatives.

Table 10.4: Informal Networks (percent)

	Share of HHs with at least one person to turn to in case of an emergency	Share of helpers who are relatives
Total 2012	91.0	73.7
Province		
Ha Tay	85.0	71.9
Lao Cai	99.1	83.2
Phu Tho	93.7	80.6
Lai Chau	94.8	76.9
Dien Bien	87.7	73.8
Nghe An	99.6	82.1
Quang Nam	78.1	58.6
Khanh Hoa	100.0	82.1
Dak Lak	95.7	74.4
Dak Nong	94.5	66.9
Lam Dong	98.7	84.4
Long An	94.3	71.7
Gender of HH head		
Female	88.7	71.5
Male	91.6	74.3
Food expenditure quintile		
Poorest	89.5	74.3
2nd poorest	89.1	73.0
Middle	92.1	77.0
2nd richest	92.8	71.9
Richest	91.3	72.0

N= 2,741

About nine out of ten surveyed households have somebody to turn to for money in case of emergency. The share of surveyed households that have a helper when in need is slightly larger for those with male heads, possibly implying some degree of gender discrimination. In most cases, helpers are relatives of households, suggesting strongly-knit kinship, which is a typical characteristic of the Vietnamese rural society.

An important source of social capital in Vietnam, and an occasion for maintaining networks, is wedding celebrations. Table 10.5 presents statistics on the share of households that have attended weddings or hosted their own wedding or a birthday party.

In total, almost all households attended at least one wedding during the past year. Male-headed households are more likely to attend weddings. The poorest households attended fewest weddings, likely due to their limited economic resources and social networks. The median member of the poorest quintile attended 10 weddings while members of the richest quintile attended 20 weddings on average. This again shows that the poor are less fortunate in terms of social capital.

Table 10.5: Weddings and Birthdays

	Share of HHs who attended at least one wedding last year (percent)	Number of weddings attended (median)	Share of HHs hosting weddings (percent)	Share of HHs hosting a birthday party (percent)
Total 2012	98.7	15	6.4	6.4
Province				
Ha Tay	99.5	20	7.7	8.3
Lao Cai	99.1	7	10.3	7.5
Phu Tho	99.5	20	8.9	5.8
Lai Chau	96.3	6	1.5	1.5
Dien Bien	99.2	10	9.2	1.5
Nghe An	99.1	20	5.2	2.2
Quang Nam	97.3	10	5.3	0.3
Khanh Hoa	99.1	10	3.6	1.8
Dak Lak	99.4	12	7.3	6.7
Dak Nong	100.0	10	9.0	0.7
Lam Dong	98.7	11	6.5	1.3
Long An	96.7	10	2.4	5.1
Gender of HH head				
Female	97.9	12	5.6	4.0
Male	98.8	15	6.6	4.5
Food expenditure quintile				
Poorest	97.2	10	5.7	0.4
2nd poorest	98.7	12	6.7	1.9
Middle	99.4	15	5.5	3.3
2nd richest	98.9	15	6.6	5.9
Richest	99.1	20	7.7	10.1

N = 2,741

The share of households hosting birthday parties is rather small. Less than 0.5 percent of the poorest households have hosted a birthday compared to 10 percent of the richest households. This can be explained by the fact that birthday celebration is not a tradition in Vietnam. Nevertheless, the increasing share of richer households celebrating birthdays suggests the impact of global cultural integration of the country on parts of Vietnamese society.

10.4 Trust

Section 10.4 presents survey evidence regarding households' attitudes to trust. In Table 10.6 we look at attitudes to trust among the surveyed households.

As mentioned in the introduction, trust is an important aspect of social capital. Trust within a community may facilitate economic outcomes such as trade between two partners that do not know each other. Individuals that live in societies with a high level of trust are more likely to divert fewer resources to protection, paying bribes etc. (Knack and Keefer, 1997).

Table 10.6: Attitudes to Trust (percent)

	Share of households agreeing with the statement:	
	"most people are generally honest and can be trusted"	*"in this commune one has to be careful, there are people you cannot trust"*
Total 2012	87.2	41.8
Province		
Ha Tay	89.9	57.8
Lao Cai	70.1	55.1
Phu Tho	88.0	40.3
Lai Chau	90.3	34.3
Dien Bien	90.8	20.0
Nghe An	91.3	78.6
Quang Nam	78.1	23.4
Khanh Hoa	98.2	19.6
Dak Lak	87.8	51.8
Dak Nong	74.5	48.3
Lam Dong	96.1	5.2
Long An	89.9	24.4
Gender of HH head		
Female	85.6	44.2
Male	87.6	41.2
Food expenditure quintile		
Poorest	88.2	40.3
2nd poorest	88.1	41.3
Middle	87.5	46.7
2nd richest	86.9	39.3
Richest	85.3	41.3

N = 2,741

The table shows that around 87 percent of households agree that most people feel that others can be trusted. Despite the high share of households agreeing that people can in general be trusted, nearly 42 percent report that there are some people that you cannot trust.

The richer households are on average less trusting than poorer households. Male-heads are slightly more trustful than female heads. For further background on attitudes towards people outside of the family within the context of traditional agrarian and Confucian traditions (see Dalton et al., 2001).

10.5 Source of Information

This section explores households' sources of information. This is related to the topic of social capital in the sense that formal and informal networks are potentially among the most

important sources of information, although we also consider other sources.

Table 10.7 presents statistics on the most important source of information for each of four issues: agricultural production, credit and insurance, policy changes, and markets. The table demonstrates that informal networks in the shape of relatives, friends, and neighbours are the most important sources of information for agricultural production. Community loud speakers rank second and extension agents third. Households mostly receive information on credit and insurance through relatives, friends, and neighbours or from television and mass media. Meanwhile, government policy changes are usually spread to rural residents through television or relatives, friends, and neighbours and community loud speakers. Relatives, friends, and neighbours, as well as television are also the most powerful sources of market information. Unsurprisingly, households frequently exchange market information in local markets.

To summarize, relatives, friends and neighbours are listed as the most important source of information for surveyed households, confirming the importance of informal, social relations for the dissemination of knowledge. On the other hand, with television reported as the second-most important source of information, the importance of modern mass media is also confirmed.

Table 10.7: Source of Information (percent)

	Agricultural production and extension	Sources of credit and insurance	Government policy changes	Market information
Sources of information:				
Relatives, friends and neighbours	56.5	53.7	43.4	65.2
Community bulletin board	28.3	30.6	22.1	12.6
Community loud speakers	49.2	37.9	42.2	22.6
Local market	8.4	7.1	9.4	50.1
Newspaper	3.5	7.8	13.8	8.9
Radio	5.4	8.6	17.0	11.8
Television	36.7	42.5	76.6	63.9
Extension agents	40.2	6.6	4.6	5.1
Other groups or mass media	18.3	41.8	21.4	7.2
Business or work associates	0.4	1.3	0.5	1.4
Mobile phone	0.4	0.7	0.3	0.8
Internet	0.3	1.0	1.4	1.9
Other	3.1	5.3	2.5	4.1

N = 2,741 HHs

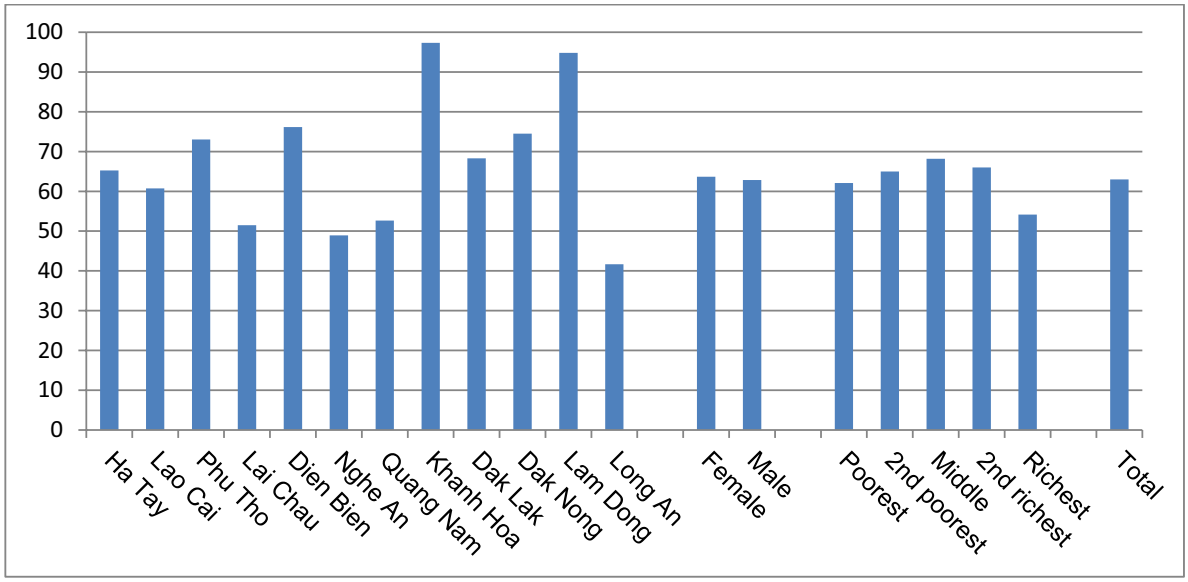
Note: The HHs are asked to list the 1st, 2nd and 3rd most important source of information. The 1st, 2nd , and 3rd most important source are treated equally (example: relative receives a one if it is listed as either 1st, 2nd, or 3rd most important source).

10.6 Social Problems

This section reports on data from a wholly new section of the VARHS included in the 2012 round capturing information about households' perceptions of social problems at the commune level. The questionnaire investigates whether crime, theft, drugs, gambling, and alcohol use in the commune are perceived to be a problem.

Figure 10.1 presents statistics on the share of households that perceive crime in the commune as a severe or moderately severe problem.

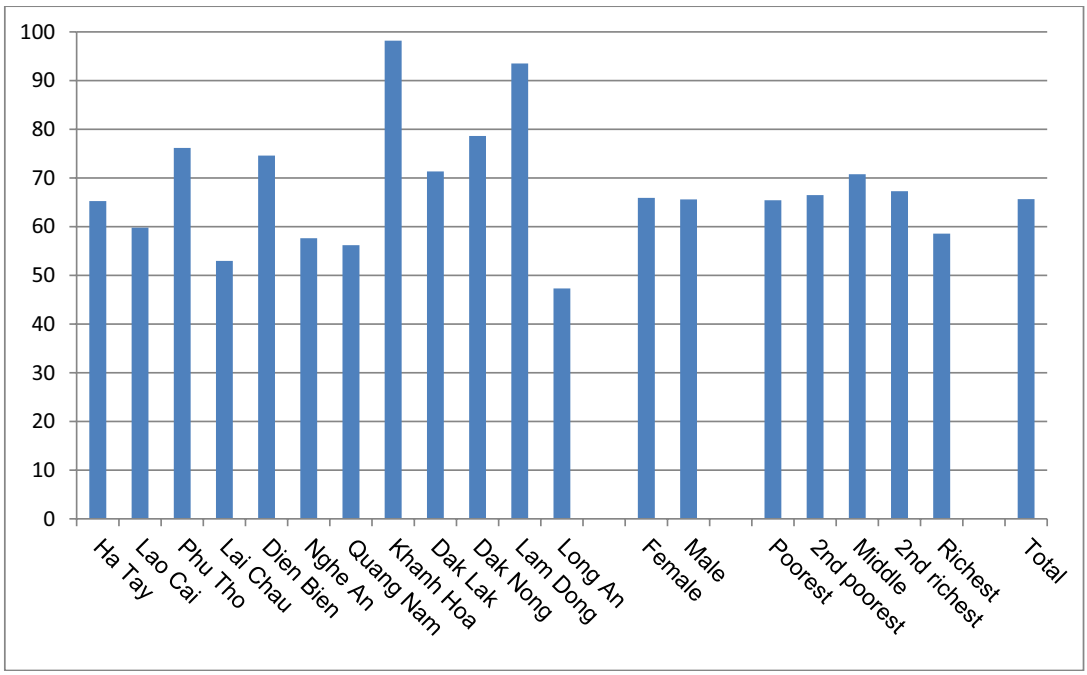
Figure 10.1: Perception of Crime (percent of respondents considering crime a severe or moderately severe problem in their Commune)



N=2,741

The figure shows more than 60 percent of all respondents perceive crime in the commune as a severe or moderately severe problem. The degree of concern among respondents varies across provinces with the greatest average level of concern about this problem reported in Khanh Hoa and Lam Dong while the lowest is in Long An.

Figure 10.2: Perception of Theft (percent of respondents considering theft a severe or moderately severe problem in their Commune)



N=2,741

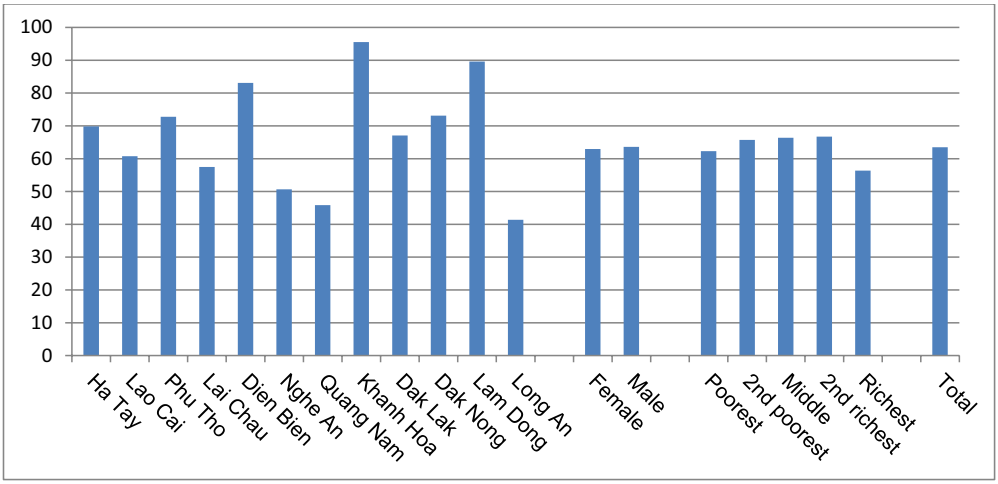
Female respondents appear to be a bit more concerned than male respondents about crime. The relationship between consumption quintile and concerns about crime is weak and non-monotonous. This may reflect the effects of opposing forces: the rich may be more exposed to crime because they are more attractive targets for thieves and burglars but wealthier households can better afford to expend resources to protect themselves from crime, for example by investing in higher quality housing, guards, or safe boxes.

We next turn to a particular form of crime, namely theft. As in the case of crime more generally, theft is seen as a moderate to severe problem by more than 60 percent of respondents, and households reporting suggest that the greatest average levels of concern about theft are in the provinces of Khanh Hoa and Lam Dong.

The attitude to theft as a problem in the commune is much the same for both male and female heads. Again, there is no strong relationship between food expenditure and concerns about theft. The poorest and the richest quintile are the two least concerned groups.

In Figure 10.3 we consider the share of households that are concerned about drug use in commune.

Figure 10.3: : Perception of Drugs (percent of respondents considering drug use a severe or moderately severe problem in their Commune)

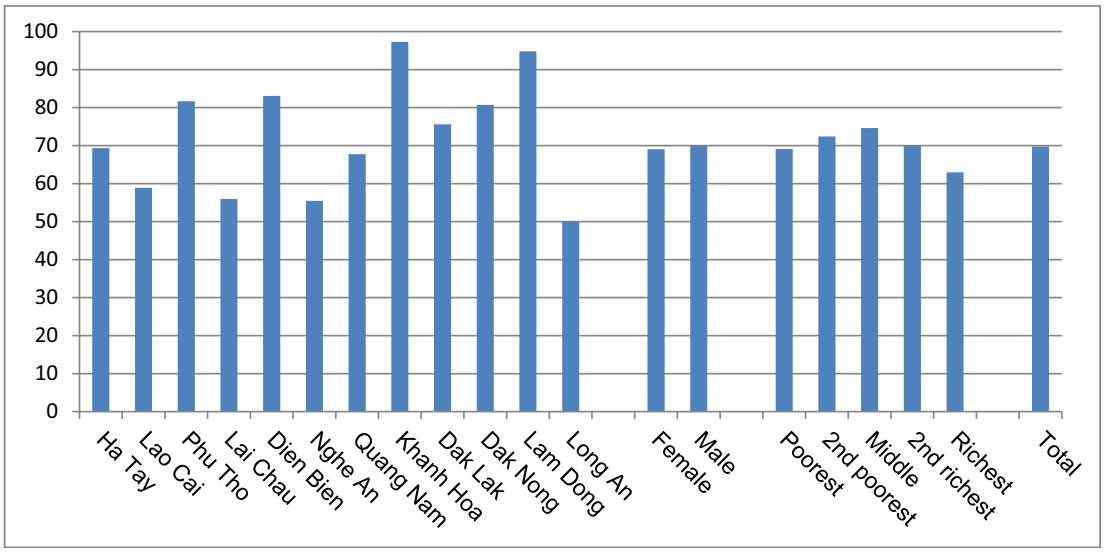


N = 2,741

The majority of surveyed households also consider drugs in the commune a severe or moderately severe problem, which may also reflect low economic development in some areas. The attitude is nearly the same for male and female household heads.

Figure 10.4 presents the share of HHs that consider alcohol use in the commune a severe or moderately severe problem.

Figure 10.4: : Perception of Alcohol (percent of respondents considering alcohol use a severe or moderately severe problem in their Commune)



N=2,741

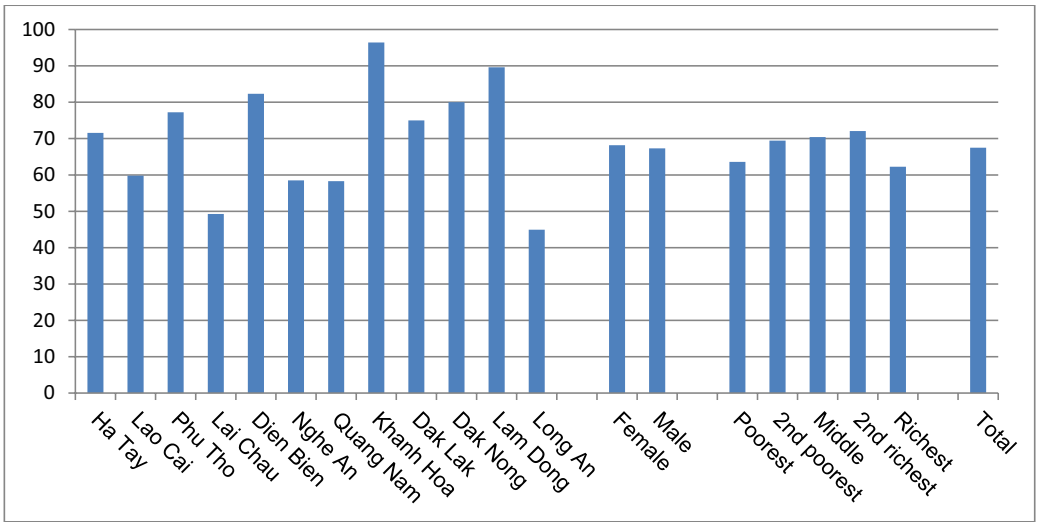
Roughly 70 percent of respondents consider alcohol use a severe or moderately severe problem. Alcoholic drinks are popular among Vietnamese men and overuse of alcohol has been widely recognized as a social issue in the country, especially among lower-income strata.

In contrast with this popular perception, the share of households considering alcohol use as a problem is not higher among the poor than among the rich – the poorest consumption quintile has the second-lowest level of concern about this issue. The attitude towards alcohol use as a social problem is similar for male- and female-respondents.

Figure 10.5 presents the share of households that consider gambling in the commune a severe or moderately severe problem.

Gambling is considered a severe or moderately severe problem in the commune by almost 70 percent of respondents. Female household heads think it is a bit more serious than male ones.

Figure 10.5: : Perception of Gambling (percent of respondents considering gambling a severe or moderately severe problem in their Commune)



N=2,741

To summarize, social issues such as crime, theft, gambling, drugs, and alcohol use are seen as a problem by a large proportion of the households we have interviewed. Levels of concern about social problems vary considerably across provinces but is only weakly correlated with gender of the household head or consumption quintile.

10.7 Economic Success and Happiness

This section discusses perceptions about the determinants of happiness and economic success. Table 10.8 presents statistics on the factors that households think are most important for achieving economic success. Statistics are disaggregated by province, gender of household head, and socioeconomic status. There are a number of factors that may affect being economically successful such as hard work, relationships with powerful persons, good

relations with family, being a man, being a woman, education, and work experience.

More than half of the households consider hard work the most important determinant of economic success, while roughly a fifth of households view education as the most important determinant. Nearly 9 percent view having a relationship with powerful people as most important. Almost none of the households think being a woman is important for economic success (less than 0.5 percent).

There are large variations across provinces and socioeconomic status. In Dak Nong education is seen as being the most important factor for economic success by more than half of all households. In Lam Dong hard work is perceived as most important by almost 77 percent of households, while education is seen as most important by eight percent. Being a man is regarded as more important by more female-headed households than male–ones, suggesting that some women household heads may feel disadvantaged. Poorer households have a higher share of households agreeing that hard work is the most important factor than richer households (59.1 percent versus 49 percent). While a higher share of richer households perceive education as most important (30.2 of richer households versus 20.5 percent of the poorest households).

Table 10.8: The Most Important Factors to Being Economically Successful

Share of HHs that consider (…) as most important for economic success (percent)							
	Hard Work	**Relationship with Powerful People**	**Good Relation with Friends/ Family**	**Being Man**	**Being Woman**	**Education**	**Work Experience**
Total 2012	56.9	8.8	2.8	3.6	0.3	23.0	5.6
Province							
Ha Tay	65.2	9.5	1.7	1.0	0.2	14.1	8.5
Lao Cai	46.7	21.5	0.0	1.9	0.0	28.0	0.9
Phu Tho	45.5	12.8	7.3	6.0	0.3	25.1	4.5
Lai Chau	68.7	10.4	3.0	2.2	0.0	14.9	0.7
Dien Bien	58.5	5.4	0.0	0.8	0.0	32.3	3.1
Nghe An	46.3	6.1	3.9	4.8	0.9	35.8	9.2
Quang Nam	57.4	5.0	1.2	4.1	0.0	27.2	5.3
Khanh Hoa	78.6	7.1	3.6	0.9	0.0	8.0	1.8
Dak Lak	61.6	9.8	4.9	1.2	2.4	15.9	4.3
Dak Nong	31.0	1.4	0.7	13.1	0.0	51.7	2.1
Lam Dong	76.6	10.4	5.2	0.0	0.0	7.8	0.0
Long An	57.1	8.3	1.5	4.8	0.0	20.8	8.6
Gender of HH head							
Female	57.7	8.5	2.6	4.9	0.2	20.5	7.0
Male	56.7	8.9	2.9	3.2	0.3	23.7	5.2
Food expenditure quintile							
Poorest	59.1	9.1	2.4	5.0	0.2	20.5	3.3
2nd poorest	63.5	7.2	2.6	1.9	0.4	21.9	3.7
Middle	58.1	10.8	2.2	3.1	0.6	19.9	6.8
2nd richest	54.2	9.7	3.7	4.0	0.2	22.8	6.6
Richest	49.0	7.4	3.3	3.9	0.2	30.2	7.7

N = 2,741

We now turn our attention to measures of happiness and its determinants. An important focus in current economic research about happiness is the relationship between income and subjective well-being. Some authors argue that there is no strong link between income and happiness (e.g. Easterlin 2009) or that only *relative* income matters (i.e. whether you income is above or below that of your neighbours, friends and colleagues, Layard 2006). Others, such as Kahneman and Deaton (2010) find that income does have a positive effect on some measures of happiness. As we might expect, they find a stronger effect of income among people with low income than among the more affluent.

Table 10.9 presents statistics on respondents' reported life satisfaction. We categorize levels of satisfaction into found four categories: very pleased, rather pleased, not very pleased, and, not pleased at all. Again, the statistics are disaggregated by province, gender, and socioeconomic status.

Table 10.9: Happiness in Life (percent)

	Very pleased	Rather pleased	Not very pleased	Not pleased at all
Total 2012	7.5	45.1	41.5	5.8
Province				
Ha Tay	8.7	52.8	33.7	4.7
Lao Cai	8.4	37.4	49.5	4.7
Phu Tho	4.7	39.3	45.8	10.2
Lai Chau	0.0	27.6	67.2	5.2
Dien Bien	4.6	53.1	38.5	3.8
Nghe An	4.8	33.2	53.7	8.3
Quang Nam	10.6	51.8	35.5	2.1
Khanh Hoa	1.8	53.6	42.0	2.7
Dak Lak	11.0	46.3	28.6	14.0
Dak Nong	4.8	48.3	40.0	6.9
Lam Dong	5.2	61.0	29.9	3.9
Long An	13.4	37.8	46.1	2.7
Gender of HH head				
Female	9.2	36.3	45.2	9.2
Male	7.1	47.5	40.6	4.8
Food expenditure quintile				
Poorest	3.9	33.1	52.3	10.7
2nd poorest	3.7	43.1	45.2	8.0
Middle	8.3	49.3	38.8	3.7
2nd richest	8.3	49.3	38.8	3.7
Richest	16.2	52.9	28.5	2.4

N = 2,741. The question formulation is. "Taking all things together: how pleased are you with life?"

The table shows that over 80 percent of respondents say they are rather pleased or not very pleased. Almost 8 percent are "very pleased" with their life, while, nearly 6 percent are "not pleased at all".

Interesting patterns emerge if we look at variation across provinces. The poorer provinces of Lai Chau, Dien Bien, and Nghe An have a very low level of households that are "very pleased,"

while the richer provinces of Long An and Quang Nam have a higher share (almost ten percent). Almost half (47.7 percent) of female-heads are "very pleased" or "rather pleased" compared to 54.6 percent of male-heads. The table also displays variation across socioeconomic status. Just 3.9 percent of the poorest households are "very pleased" compared to 16.2 percent of the richest households. Strikingly, 10.7 percent of the poorest are "not pleased at all" while this figure is just 2.4 percent for the richest group. The latter supports the hypothesis of a positive (negative) relationship between a higher (lower) relative income and happiness.

To further explore happiness and life satisfaction we asked the households which factors they think are the most important for happiness. In Table 10.10 statistics on factors affecting happiness are displayed. The majority (51 percent) view good health as most important for happiness. Nearly a third of the households believe that high income and wealth are more important for happiness. Around six percent view a stable life as being important.

Table 10.10: Most Important Factors for Being Happy

	Share of HHs that consider (...) as most important for happiness (percent)							
	High Income	**Good Health**	**A Stable Life**	**Being Married**	**Having Children**	**Occu-pation**	**Freedom**	**Good friends and neighbours**
Total 2012	29.0	51.3	10.3	7.4	1.1	1.0	0.4	0.7
Province								
Ha Tay	19.3	61.2	14.0	2.6	1.4	0.7	0.9	1.0
Lao Cai	42.1	41.1	8.4	4.7	0.0	0.9	0.0	0.9
Phu Tho	24.6	45.3	11.0	17.0	1.0	0.0	0.3	0.3
Lai Chau	48.5	48.5	3.7	0.7	0.7	0.0	0.0	0.7
Dien Bien	40.8	46.2	7.7	4.6	0.0	0.8	0.0	0.0
Nghe An	40.2	44.1	4.8	14.8	2.6	2.2	1.3	1.7
Quang Nam	26.0	53.0	9.8	12.1	0.0	0.0	0.0	0.0
Khanh Hoa	51.8	36.6	4.5	3.6	0.9	0.9	0.0	1.8
Dak Lak	22.0	65.2	7.3	2.4	1.2	0.6	0.0	0.0
Dak Nong	29.0	53.1	6.2	6.2	2.1	2.8	0.0	0.7
Lam Dong	46.8	37.7	6.5	3.9	1.3	3.9	0.0	0.0
Long An	21.7	51.2	17.3	5.1	0.9	2.4	0.9	0.6
Gender of HH head								
Female	25.4	53.2	12.2	7.0	0.9	1.2	0.2	1.0
Male	30.0	50.8	9.7	7.6	1.1	1.0	0.5	0.6
Food expenditure quintile								
Poorest	33.8	51.6	7.6	4.6	0.4	1.3	0.4	0.6
2nd poorest	31.5	51.9	8.0	6.9	1.5	0.4	0.2	0.6
Middle	29.2	53.3	8.3	7.7	0.9	1.1	0.4	0.4
2nd richest	28.9	47.1	13.1	8.6	1.5	1.1	0.4	0.4
Richest	21.5	52.7	14.5	9.6	1.1	1.3	0.9	1.5

N = 2,741

There is a high degree of variation across provinces. Half of all households in Khan Hoa believe that high income and wealth is the most important determinant for happiness, while less than one fifth of households in Ha Tay view high income and wealth as important. Female-headed households are more likely to think that good health is important compared to male-heads that place a higher emphasis on high income and wealth. Poorer households are more likely to view high income and wealth as being most important (33.8 percent versus 21.5 percent of the richer households). Richer households are more likely to value a stable life and being married. Half of both richer and poorer households view good health as most important for happiness.

10.8 Summary

This chapter began by investigating social capital in the form of formal and informal social networks and trust. A significant majority of surveyed households are members of formal groups and have strong informal networks, indicated by the share of households that have a helper in case of emergency.

Another strong indicator for informal networks in Vietnam is the number of weddings a household attends. All households reported attending at least one wedding during the past year, and the median number of weddings attended was 15. Despite clear indications of strong formal and informal networks, variation across levels of socioeconomic status is, to some extent, a cause for concern.

The poorest households are less likely to be members of formal groups such as the Communist Party of Vietnam or the Youth Union; are less likely to have someone to turn to for financial assistance in case of an emergency; and attend fewer weddings. On the other hand, poor households do not display lower levels of trust in their fellow citizens than others.

Second, the chapter presented results on households' sources of information. Informal networks, such as friends, family and neighbours are in general the most important source of information, followed by television.

Third, the chapter investigated perceptions about the severity of issues such as crime, drug use and gambling. Results show that 60-70 percent of the rural population are moderately to very worried about these "social problems". Concerns about social problems is not strongly related to consumption status or gender, but varies considerably across provinces, with the highest share of concerned households found in the provinces of Khanh Hoa and Lam Dong.

Fourth, the chapter explored levels of happiness and perceived determinants of happiness and economic success. In terms of happiness, there appears to be a clear relationship between poverty status and the level of satisfaction with life as richer households are more pleased with life. Poorer households are to a larger extent not happy with their life. At the same time, a higher share of poor households than richer households see high income and wealth as the most important factor for happiness. Looking at factors affecting economic success, poor households are more likely to see hard work as important while richer households consider education to be relatively more important for economic success.

References:

Coleman, J. S. 1988. *Social capital in the creation of human capital*. American Journal of Sociology. Vol. 94. pp. 95-120.

Dalton, R. J., Ong, N-N, T. 2001. *Civil society and Social capital in Vietnam*. World Values Survey project.

Diener, E. 1984. Subjective well-being. Psychological Bulletin. Vol. 95. pp. 542-575.

Layard, R. 2006. Happiness and public policy: a challenge to the profession. The Economic Journal. Vol. 116. pp. 24-33.

Kahneman, D., Deaton, A. 2010. High income improves evaluation of life but not emotional well-being. PNAS. Vol. 107. No. 38.

Putnam, R. D. 1993. Making democracy work: Civic traditions in modern Italy. Princeton University Press.

Veenhoven, R. 1984. Conditions of happiness. Dordrecht/Boston: Reidel.

CONCLUSION

In spite of a slowdown in the aggregate growth rate of the Vietnamese economy, rural areas in the 12 VARHS provinces continue to show clear signs of economic progress. Between 2010 and 2012, average income and food diversity have increased and access to vocational training has improved. An increasing number of households moved out of crop agriculture and began to base their livelihoods on the non-farm economy. Some Government programmes have demonstrated impressive progress: the share of plots with a Land Use Rights Certificate is steadily increasing, and the rate of livestock vaccination has increased very significantly in recent years. The citizens of rural Vietnam are remarkably active in mass organizations and display high levels of trust in each other.

On the other hand, this report also gives rise to concerns. Consider land relations: in a fast-growing economy undergoing broad-based structural changes, it is essential that land can be re-allocated from one use to another in response to changing prices, the expansion of industry and migration of rural dwellers to urban areas. Our results, in contrast, show that very few migrants own land in the area where they have settled, and many households list lack of access to land as an important problem for migrants. While it is now more common than in the past to acquire agricultural land through the market, the second most common way of parting with a plot of land is still to be expelled by the State (the most common is to deed land to children). Crop choice continues to be heavily regulated, and there has been a sharp drop in land-related investment between 2010 and 2012. These results indicate a need to further expand and strengthen individual land rights.

Another concern is increasing pressure on the environment. Most households continue to dispose of garbage by burning or dumping it, rather than having it taken to a waste site, and a large share of households continue to use firewood as their main source of energy. Yet results show that the vast majority of respondents in all provinces and all socio-economic classes have experienced a decline in access to firewood and other common property resources (CPRs) over the last three years. Improved state- or community based regulation of CPR extraction is needed.

Some sectors of the rural economy appear underdeveloped and may have a strong potential for growth. For example, livestock production is dominated by small operations with very limited use of non-household labour and credit. Domestic demand for meat and other livestock products will rise in the coming years, and development of the livestock sector therefore is an opportunity for increasing value-added in agriculture. Another example is commercial provision of insurance by private firms. Very few households have purchased insurance products from private providers. To the credit of the Vietnamese government, most households are covered by different forms of compulsory, public insurance schemes, but these programmes do not protect households from many kinds of shocks, often do not provide significant financial protection after a negative shock, and, reportedly, do not reliably pay affected households.

There remains a gap in the market that could potentially be filled by private firms.

Fewer households report exposure to economic shocks in 2012 than in 2010, but those that were hit suffered more in 2012 than in 2010. Shocks hit poor households much harder than rich ones, both in terms of frequency and severity. While shocks related to disease and other natural hazards are the most common, households may also face emerging threats to the social fabric of their communities: 60 to 70 percent of households reported that "social problems" like theft, gambling, and alcohol use were moderately or very important concerns..

Strikingly, only 53 percent of respondents say that they are "rather" or "very" pleased with their lives, while 47 percent are "not very" or "not at all" happy. In the poorest consumption quintile, this rises to 65 percent, while in the richest quintile only 33 percent are not happy. Further research should investigate if the strong correlation between socioeconomic status and happiness is driven by absolute or relative levels of income, and whether a low level of happiness is driven by negative by-products of rising incomes, such as crime, loss of identity, or separation from loved-ones due to migration, or is a result of the recent economic downturn.

This report's bottom line is that there remain very large differences in economic development and welfare across different provinces in Vietnam. Households in upland areas, especially in the Northwest, are significantly poorer and have much lower access to essential goods such as safe drinking water and high-quality housing than households in other areas. They are also much less connected to markets for land, labour, and agricultural inputs. In Dien Bien and Lai Chau, both sales and rental markets for land are virtually non-existent, and wage labour plays a much smaller role as a source of income in these provinces than elsewhere. Many fewer households in upland provinces buy rice seeds, using instead their own reserves, than in the lowlands.

While household enterprises are not uncommon in upland areas, they are run at an even smaller scale than elsewhere. To be sure, there are also positive results from the uplands: inhabitants of these provinces display even higher trust in their fellow citizens than people in other provinces. Some policy programmes show impressive outreach. For example, the share of households visited by an agricultural extension worker in the last year is higher in Dien Bien than in Ha Tay. Vaccination rates have increased faster in the Northwest than in most other areas in recent years.

On balance, though, there is a large, persistent gap in development outcomes between upland and lowland areas, and between members of the Kinh majority and other ethnic groups. In the interests of ensuring that Vietnam's larger economic successes can be shared more equally, these gaps should be a major focus for Vietnamese policymakers and their partners in the donor community.

In particular, economic development in upland areas should become a priority, implemented through a programme of investments in human capital (health and education), and physical capital (infrastructure) to enable upland communities to add value to their agricultural output through improved access to markets for goods, labour, and capital. One aspect of this is re-

considering legislation governing internal migration to enable migrants to take advantage of better economic opportunities elsewhere. This could be done through, for example, strengthening land rights and land markets, liberalization of residence permit regulation, and improved transport linkages.

The Vietnam Access to Resources Household Survey (VARHS) will, in future years, continue to monitor and analyse development in rural Vietnam and collect much needed data. Information and analysis from future survey rounds will supplement a large and growing data set that can support the process of formulating and evaluating policies to encourage growth and remove constraints to increasing household welfare, particularly amongst ethnic minorities, vulnerable populations, and in rural areas that have not yet fully shared in the exceptional growth witnessed in many other areas of Vietnam.

NHÀ XUẤT BẢN LAO ĐỘNG - XÃ HỘI

ĐẶC ĐIỂM KINH TẾ NÔNG THÔN VIỆT NAM

KẾT QUẢ ĐIỀU TRA HỘ GIA ĐÌNH NÔNG THÔN NĂM 2012 TẠI 12 TỈNH

CHARACTERISTICS OF THE VIETNAMESE RURAL ECONOMY

Evidence from a 2012 Rural Household Survey in 12 Provinces of Vietnam

Chịu trách nhiệm xuất bản:
Giám đốc
NGUYỄN HOÀNG CẦM

Chịu trách nhiệm nội dung:
Viện Nghiên cứu quản lý kinh tế Trung ương

Biên tập:	**Nguyễn Trung Quốc**
Bìa:	**Thế Mạnh**
Trình bày:	**SVN-design**

In 500 cuốn, khổ 20,5x29cm tại Công ty Cổ phần in Sách Việt Nam
Giấy phép xuất bản số: 1002-2013/CXB/04-171/LĐXH
Quyết định xuất bản số: 348/QĐ-NXBLĐXH cấp ngày 31/7/2013
In xong và nộp lưu chiểu tháng 8 năm 2013.

CHARACTERISTICS OF THE VIETNAMESE RURAL ECONOMY EVIDENCE FROM A 2012 RURAL HOUSEHOLD SURVEY IN 12 PROVINCES OF VIETNAM

CIEM - DANIDA PROJECT
CENTRAL INSTITUTE FOR ECONOMIC MANAGEMENT
2 nd FLOOR, BLOCK C,
68 PHAN DINH PHUNG STREET
HANOI, VIETNAM
TEL/FAX: (84 - 4) 7.339130
WEBSITE: WWW.CIEM.ORG.VN