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Poverty of the Ethnic Minorities in Vietnam:
Situation and Challenges from the Poorest Communes

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Abstract

This study examines the poverty of the ethnic minorities in the poorest areas in Vietnam. We find that the ethnic minority now constitute more than a half of the poor population, though they account for around 14.5 percent of the population,. The share of the poor ethnic minorities in the total poor has steadily increased from 18 percent in the early 1990s up to 56 percent recently. Our decomposition analysis shows that differences in characteristics could explain as much as one third of the income gap between the majority and all other ethnic minorities groups. Importantly, it implies that poverty of the ethnic minorities cannot be solved simply by investment in infrastructures and public services. This suggests an awaking alarm for the focus on provision of basic infrastructure and public services emphasized in most of the current policies and programmes for ethnic minorities.

Keywords: ethnic minority; household income; poverty; decomposition, Vietnam.
JEL Classifications: I31, I32, O12.

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List of Abbreviations

BLS	P135-II Baseline Survey
CEMA	State Committee for Ethnic Minority Affairs
CCT	Conditional Cash Transfer
GSO	General Statistical Office
MOLISA	Ministry of Labour, War Invalids, and Social Affairs
SOE	State owned enterprises
P135-I	Program 135 Phase 1
P135-II	Program 135 Phase 2
UNDP	United Nations Development Program
VHLSSs	Vietnam Household Living Standards Surveys
VLSSs	Vietnam Living Standards Surveys
VASS	Vietnam Academy of Social Sciences
WB	World Bank

Introduction

The rapid economic growth experienced in Vietnam during the 1990s and early 2000s resulted in unprecedented reductions in poverty. The 54 officially recognized ethnic groups within Vietnam's diverse society have not, however, shared equally from the benefits of this growth. Poverty, life expectancy, nutritional status, and other living standard measures remain persistently low among Vietnam's ethnic minorities. Despite comprising just over one seventh of the national population, the minorities accounted for about 56 percent of the poor in 2008. Some government agencies forecast that by 2010, the ethnic minorities will constitute more a half of Vietnam's poor population. Widespread poverty and some other aspects of economic well-being amongst ethnic minorities in Vietnam has been informed in, *inter alia*, the World Bank's Vietnam Country Social Analysis on Ethnicity and Development (2009), World Bank (2008), and a number of studies as reviewed in Baulch *et al.* (2008), Pham and Reilly (2009), VASS (2007), Van de Walle and Gunewardena (2001).

Vietnam has a large number of policies and programs specifically designed to assist ethnic minority development. These programs and policies have paid attention to a wide range of socio-economic issues related to ethnic minority development and are targeted in different ways. With continuous supports, living standards of the ethnic minority has been significantly improved over the past decade. Income growth was observed with improvements in access to education, healthcare services, and basic infrastructures. However, what is most striking in the poverty reduction path of Vietnam is that the ethnic minority experienced welfare improvements at a slower pace compared to that of the majority (i.e. the Kinh ethnic group). As a consequence, the gap between the majority and ethnic minority tends to widen over time.

In this context, understanding on the persistence of the poverty amongst ethnic minorities is essential for more effective support to socio-economic development of the ethnic minority. There has been a growing literature on poverty of the ethnic minority in Vietnam and most of this literature is based on the data available from the series of the VLSSs in the 1990s and/or more recent VHLSSs. These high quality and nationally representative surveys have provided a good background for the analysis of poverty and shed valuable insights on aspects of the living standards of the ethnic minority. However, this is potentially subject to two important pitfalls. *First*, the V(H)LSSs are not designed to be representative for the ethnic minority, and consequently ethnic minority-headed households are often under-sampled. *Second*, the V(H)LSSs provide relatively small sample sizes on the ethnic minorities, making it not sensible to offer disaggregate analysis

for individual ethnic groups. Inheriting these two problems, interpretation of data available from these surveys and policy implications from the resultant findings should be taken with caution.

In this context, this study is proposed to examine the poverty of ethnic minorities in Vietnam from a different perspective. Instead of using VLSSs and VHLSSs as in previous studies, we will explore the baseline survey (BLS) of the Programme 135 Second Stage (P135-II) as the major source of primary data. The BLS was implemented by the General Statistical Office (GSO) in 2007, under the authority of the Committee for Ethnic Minority Affairs (CEMA) and with technical assistance from UNDP on the communes that were targeted on the largest support programme for ethnic development – the Program 135.[1] The survey consists of a sample of 6,000 households in the extremely difficult communes of Vietnam. The survey mirrors the Vietnam household living standards surveys and is considered to be of high quality.[2] Since the BLS was completed, the dataset has bene used intensively in provide mid-term review assessment of the P135-II as reflected in Pham *et al.* (2009a) or UNDP-CEMA (2009). According to their throughout analysis, this baseline is arguably the most comprehensive survey on ethnic minorities available to date (see Annex 1 for details on the BLS).[3]

Given this perspective, this report is proposed for answering the following main research questions:[4]

(i) Question 1: What are the main characteristics, both income and non-income, of the poor ethnic minorities?

(ii) Question 2: What are the disadvantages of the poor ethnic minoroties in accessing to public services and basic infrastructures?

(iii) Question 3: How the poor ethnic minorities earn their income? What are the determinants of income gaps across different ethnic groups?

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[1] As the survey was undertaken one and a half year after the start of the P135-II, it is not strictly a 'baseline'. The survey provides a rich pool of information on the P135-II targeted communes in the early stages of implementation. This could be explored to develop a benchmark for evaluating the impacts of the Program.

[2] The rounds of the Vietnam's VLSSs and VHLSS over the past two decades are based on the general methodology of the World Bank's Living Standards Measurement Survey (LSMS). This LSMS has been implemented in most of developing countries in order to provide high-quality data on household living standards (see www.worldbank.org/lsms for more details).

[3] The terms of reference for this study also stated that the data available from the Citizen Report Cards survey for the MTR of the P135-II and the NTP-PR should be used. However, as this survey mainly focused on the satisfaction of the beneficiaries on the support received from the P135-II, this data source is not really relevant for the purposes of this study. Instead, the BLS will be used as the main dataset. When appropriate, data from the V(H)LSSs will also be used to draw comparisons.

[4] These research questions are proposed on the basic of the requirements set in the original TOR for this research. It should be noted that there are a number of requirements as stated in the TOR and this six research questions are proposed to capture these requirements.

(iv) Question 4: How the current policies and programmes have supported the poor ethnic minorities in improving their living standards?

(v) Question 5: What suggestions could be drawn for future policies and programmes to support poverty reduction for the ethnic minorities?

Given these objectives, this report aims at three important aspects on the living standards of the ethnic minorities. *Firstly*, the report will depict a comprehensive poverty situation and economic well-being of ethnic groups in the extremely difficult communes. The focus will be placed on both income poverty and other non-monetary aspects of economic well-being (e.g. access to education, healthcare services, support initiatives etc.). *Secondly*, the report will examine the determinants of the income gap between the majority and different ethnic minority groups. This will contribute to the growing literature on the ethnic welfare gap in Vietnam by decomposing the income gap into two components, one is attributed to the differences in 'characteristics' across the ethnic groups; the other is attributed to differences to 'returns' to these characteristics. The third important aspect is to investigate how the poor ethnic minorities have been supported by the current policies and programmes. And importantly, as a result of the analysis of this report, this will also cover the set of recommendations for future policies and programmes to support improvements in living standards for the ethnic minorities.

This study employs a variety of methodologies.[5] For the first two questions, descriptive analysis using statistical references will be used to inform both at average and a number of disaggregate dimensions. At the average, the analysis will provide a narrative of the characteristics of the poor ethnic minorities as a broad ethnic minority group in comparison with the majority group.[6] In addition to this majority-minority dimension, the current report adopts other *five dimensions* for the analysis. Given the high concentration of the ethnic minority in this area, we aim at providing the analysis at the most disaggregate level of ethnicity possible (in addition to the conventional 'majority-minority' classification), taking into account the size of the sub-samples for individual ethnic groups. In order to make statistically meaningful references, any individual ethnic groups having more than 100 observations in the sample of the BLS are treated as a separate ethnic group. Therefore, the report adopts a classification of 14 ethnic groups, including the Kinh (or the

[5] To keep the focus of this study as a policy-oriented research, we are not going to provide a detailed description of methodologies or data sources adopted in a separate chapter as observed in other typical research papers on poverty in Vietnam. Instead, the essentials of the approaches used are summarized in this Introduction section; the other details are provided in the annexes for the reader with technical backgrounds.

[6] It is noted that the term 'minority' is used in this analysis to facilitate comparison with the economic literature on Vietnam, that is commonly used the term 'minority' to refer to the different ethnic minorities groups. However, the sample of observations covered in the BLS consist of 22 percent of the Kinh households and the remaining are ethnic minority-headed households. Therefore, the ethnic minority in our dataset is actually the 'majority' in the poorest communes.

majority),[7] Tay, Thai, Muong, Nung, Dao, Mong, 'others in the Northern Uplands', Bana, H're, Co Tu, 'others in the Central Highlands', Khmer, and finally other ethnic groups (i.e. the other groups that not reside in the Northern Uplands or Central Highlands).[8] It is desirable to provide analysis on further disaggregate ethnic classification. However, this is constrained by data availability (see Annex 2 for further details).

In addition to the ethnicity dimension, Vietnamese language ability is selected as the another dimension for the analysis in this study. It is generally recognized that Vietnamese language ability of the ethnic minorities is a potentially important factor for their integration in the society and thus living conditions. We will thus adopt the three levels of Vietnamese language proficiency. Moreover, gender of household heads could be an important driver of decision making processes within households, and thus we will also consider this as an important dimension of the analysis. We take into account spatial differences in living conditions by providing detailed indicators according to regions and by geographical characteristics (i.e. whether communes are coastal and delta or other types, which include midland or mountainous communes). This study will distinguish between the poor and the non-poor when embarking the analysis in all the chapters. Further details on these dimensions of analysis are given in Annex 2.

For the third research question, the report will adopt the Blinder-Oaxaca decomposition approach as commonly used in the previous studies on the welfare gaps across ethnic groups in Vietnam (see for instance Baulch *et al.* 2008; Pham *et al.* 2009b for a review of the studies using this approach). Accordingly, the overall average differential in income per capita between the ethnic groups will be decomposed into a part attributable to differences in characteristics between the ethnic groups (known as the 'explained' or 'endowment' component) and a part attributable to differences in the estimated returns to characteristics between these groups (known as the 'treatment' or 'unexplained' component). The 'characteristics' in the former consists of household features (e.g. household demographic characteristics, human capital, household assets such as landholding, household access to infrastructures). Returns to these characteristics in the latter refers to the benefits that household have received from the above characteristics (see Annex 3 for the details of this approach).

[7] The Hoa households account for very small size in the sample (i.e. there were 42 Hoa households surveyed in the BLS), separating Hoa as an individual group is thus not statistically sensible. We've tried to separate the Hoa from the Kinh-Hoa to check if this would introduce any significant differences from the figures reported in this study but this is not the case. Therefore, we consider Hoa in the Majority group to facilitate comparison with the previous studies.

[8] It is important to note that this classification is simply based on technically statistically reasons rather than any ethological background.

For the fourth research question, a desk study approach is employed to review the existing plethora of policies and programmes to support poverty reduction for the poor ethnic minorities. This should be noted that this report is not proposed to provide a comprehensive review of the policies and programmes that aim at improving living standards for the ethnic minorities. Instead, the report will highlight the 'gap' or the 'mismatch' between the current policies and programmes and the characteristics of the poor ethnic minorities. The focus will be placed on what areas of interventions that have not been effectively covered by the current plethora of policies and programmes to support improvements in the living standards of the poor ethnic minorities.

For the fifth research question, answering the above four research questions will provide the background to draw suggestions for future policies and programmes to support poverty reduction for the poor ethnic minorities. In this regard, this report is expected to provide input for the policy dialogue among different stakeholders for supporting poverty reduction for the poor ethnic minorities in the coming years, especially for the next stage of the P135 and poverty reduction framework for the period 2011-2020.

The structure of the current report can be now outlined. Chapter 1 will depict a comprehensive poverty situation and economic well-being of the ethnic minorities in the extremely difficult communes under the coverage of the P135, with as much disaggregating for different ethnic minority groups as possible. The focus will be placed on both income poverty and other non-monetary aspects of economic well-being. The subsequent chapters will cover most important aspects of living standards of household residing in the extremely difficult communes of the country. In particular, Chapter 2 will focus on access to public services with a focus on access to public services, with a focus on education, healthcare, and other basic infrastructures. Chapter 3 will investigate major livelihoods activities pursued by the households in this area to earn their living. Chapter 4 provides in-depth insights on the income gap between different ethnic groups. This chapter will re-examine the welfare gap amongst ethnic groups, which has been the subject of a number of previous studies using the V(H)LSSs. A review of and suggestions for policies and programmes to support poverty reduction of the ethnic minorities will be provided in the final chapter of the report.

Chapter 1. Poverty Profile of the Poor Ethnic Minorities

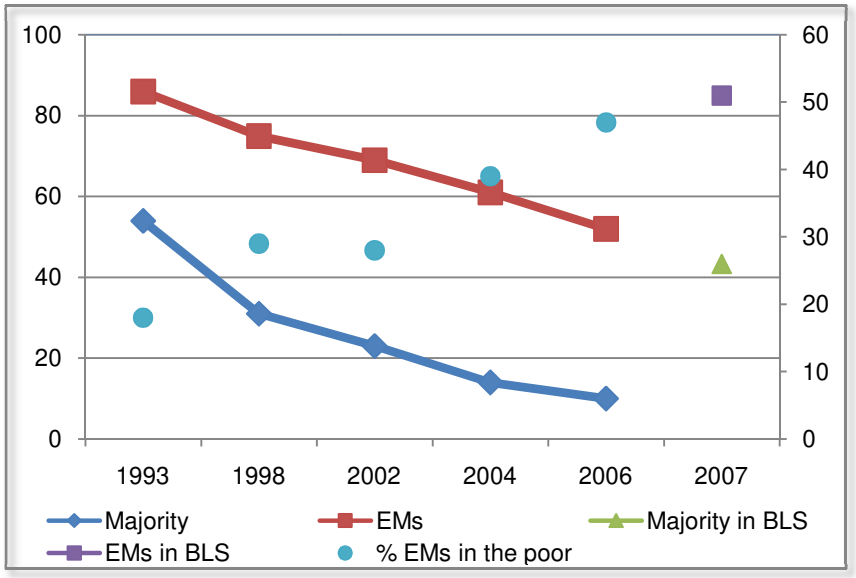
This chapter reports poverty profile of the households residing in the communes under the coverage of the P135-II – this is to answer the first research question. Conventionally, there are two approaches to measuring poverty commonly used in Vietnam. One advocated by the World Bank is based on expenditure welfare measure; the other is income-based measure which is currently used by MOLISA and other authorities in Vietnam. As the BLS does not collect expenditure data, this study will thus rely on income as the welfare measure for its analysis. The next section will contextualize by providing an overview of poverty of the ethnic minorities in the country as a whole before moving the focus to the poor ethnic minorities in the P135-II communes. The second section will concentrate on inequality indicators to describe the inequality situation in the extremely difficult communes. To supplement for the analysis of monetary aspects of poverty in the first two sections, the final section will focus on some non-income aspects of living standards of the poor ethnic minorities.

1.1 Poverty in Vietnam as an ethnic phenomenon

To contextualize the poverty profile of the ethnic minority in the extremely difficult communes, it is useful to start with an overview of poverty of the ethnic minority in the country as a whole. Vietnam has made great strides in reducing the poverty rate, from nearly 58 percent of the population in 1993 to less than 16 percent in 2006. Figure 1.1 shows that the ethnic minority has however experienced lower rates of poverty reduction than the general population. In 2006, 52 percent of ethnic minorities lived under poverty line; while the corresponding figure for the majority is 10 percent.[9] What is most worrying is that the share of the ethnic minority in the poor population has monotonically increased over time. As shown by the round dots in Figure 1.1, only 18 percent of the poor was ethnic minority-headed households in the early 1990s, the corresponding figure for 1998 was 29 percent, for 2004 was 39 percent, and most recently 47% in 2006 (using data from the V(H)LSSs). Accounting for around 14.5 percent of the population, the ethnic minority now constitute more than a half of the poor population. Given this, poverty will be a particularly a phenomenon of ethnic minorities in the future.

[9] In this part of the analysis, the WB-GSO poverty lines which mirror international standards. The general poverty line is based upon the food poverty line but allows for minimum non-food expenditure. The food poverty line is calculated as the expenditure required, given Vietnamese food consumption patterns, to deliver 2100 calories per person per day. These measures are absolute poverty lines and are constant in real terms over time. The basket of goods used to calculate the poverty lines is the same from year to year with adjustments only made to the prices used to estimate the expenditure required to purchase that basket.

Figure 1.1 Poverty evolution in Vietnam (%)



Source: authors' calculations based on the V(H)LSSs and the BLS

Poverty headcounts of the households in the extremely difficult communes are also reported in Figure 1.1 (on the second vertical axis), through poverty figures are not compatible as the national average were based on expenditure data as the welfare measure available from the V(H)LSS while those of these communes were based on income data as poverty measure.[10] It is noted that there is a big gap in poverty headcount between the majority and ethnic minority groups in these extremely difficult communes, through the gap is not as large as observed for the whole country. We observed a gap of 25 percentage point in the poverty rate across the two ethnic groups in the extremely difficult communes while the national average gap was 42 percentage points in 2006. This suggests that through Vietnam has achieved great success in poverty reduction, poverty is stubbornly persistent for the ethnic minority and there is a danger that poverty could be an ethnic minority phenomenon in the future.

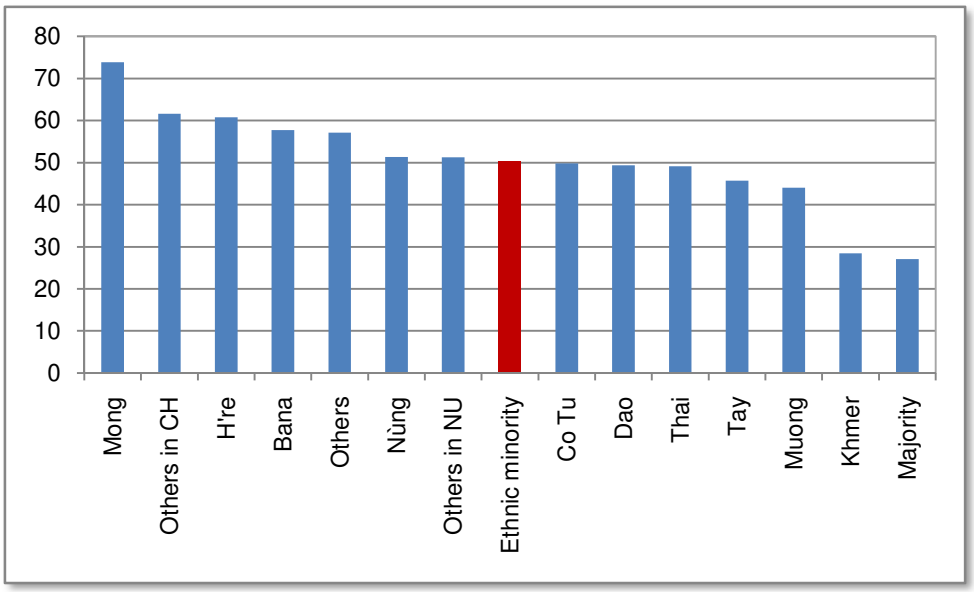
Given this overall picture, Table 1.1 reveals some insights on poverty status in the extremely difficult communes surveyed in the BLS. Using the income poverty line above, we calculated the head count index, poverty gap and poverty severity for the official poverty line. On average, nearly 43 percent of the households in these communes were living in poverty in 2007. This is considerably higher than the national average poverty rate using the same poverty line. It is noted that poverty is much more severe with the ethnic minorities rather than with the majority. While nearly a half of the ethnic minority-

[10] For these communes, as data on expenditures is not available, we adopt the official poverty definition which is specified in the Prime Minister's Decision No. 170/2005 QD-TTg (dated July 08, 2005). As all the extremely difficult communes surveyed in the BLS are classified as rural communes, the official poverty line will be accordingly, VND 200,000/per person/per month

headed households was under poverty, the poverty incidence of the majority is around 27 percent. This finding suggests an important policy implication. Although the Kinh is the majority in the population, the ethnic minority is actually the 'majority' in these extremely difficult communes. According to the baseline survey, 67 percent of the population in these communes belong to ethnic minority groups rather than the Kinh. The persistence of poverty in these extremely difficult communes suggest that further poverty reduction efforts in this area will be more expensive than they were in the past.

Among smaller groups of ethnic minorities, with the exception of the Khmer, the poverty rate is higher than the averaged rate. Figure 1.2 suggests that for most of the individual ethnic groups classified in this study, more than a half of their population were living under the poverty line of 200,000 VND/per person/month. Poverty is worryingly high among the Mong households (i.e. 74 percent of the Mong are poor). Ranked after the Mong are those in the Bana, H're, and others in the Central Highlands. The Tay, Thai, Muong, Nung, Dao and other ethnic groups in the Northern Uplands are more or less poor as the average level of the ethnic minority.

Figure 1.2 Poverty is severe for some ethnic groups (%)



Source: drawn from the data calculated from the BLS

It is important to note that the poverty rates in the extremely difficult communes above are calculated using the official poverty line regulated in July 2005. If we simply adjust the poverty line to Sept 2007, the time of implementing the BLS, these poverty rates will increase by an order of nearly ten percentage points. If we employ the new poverty line

proposed recently by MOLISA (i.e. VND 300,000/per person/per month),[11] all the headcount indices will be higher by an order of more than 20 percentage points. In particular, it will translate to a poverty rate of 63 percent in the extremely difficult communes, and a poverty index of 70 percent for the ethnic minority in this area. Most importantly, poverty rates in most of the ethnic groups in the Northern Uplands and Central Highlands will be between 70 to 90 percent.

Table 1.1: Poverty in the extremely difficult communes (% and decimal)

	2005 poverty line			2007 CPI-adjusted Headcount index	Headcount index based on drafted poverty line
	Headcount index	Poverty gap	Poverty severity		
Average	42.7	0.2	0.9	53.1	63.1
Ethnic groups					
Majority	27.1	0.2	2.5	37.1	47.6
Other ethnicities	50.3	0.2	0.1	60.9	70.7
Tay	45.7	0.2	0.1	59.6	68.3
Thai	49.1	0.2	0.1	57.5	70.6
Muong	44.0	0.1	0.1	54.4	63.9
Nung	51.3	0.2	0.1	59.8	71.9
Mong	73.8	0.3	0.2	82.6	89.1
Dao	49.4	0.2	0.1	66.2	76.6
Others in Northern Uplands	51.2	0.2	0.1	62.1	72.8
Bana	57.7	0.2	0.1	71.9	80.7
H're	60.8	0.2	0.1	73.6	81.0
Co Tu	49.8	0.2	0.1	63.8	71.0
Others in Central Highlands	61.6	0.3	0.2	71.5	81.4
Khmer	28.4	0.1	0.2	34.7	44.9
Others	57.1	0.2	0.1	68.9	80.4
Regions					
Red River Delta	37.5	0.1	0.1	49.6	61.9
North East	51.2	0.2	1.6	63.0	72.3
North West	48.8	0.2	0.2	58.3	68.6
North Central Coast	47.8	0.2	0.1	57.6	68.4
South Central Coast	47.3	0.2	0.1	60.7	67.9
Central Highlands	41.8	0.2	0.1	52.8	62.3
South East	26.0	0.3	1.6	37.8	49.6
Mekong River Delta	26.3	0.2	1.2	33.9	44.7
Gender of household heads					
Male	44.3	0.2	1.0	54.8	65.2
Female	33.1	0.2	0.1	42.9	50.9
Daily language					
No or little Viet	53.8	0.2	0.1	64.2	73.5
Both Viet and ethnic	44.0	0.2	0.1	54.9	65.7
No or little ethnic	28.7	0.2	2.2	38.9	49.3

[11] Currently, the MOLISA is proposing a new poverty line for the period 2011-2015. The new poverty line is proposed to be 350,000 dong/person/month for rural households and 450,000 dong/person/month for urban households.

Poor vs. non-poor					
Poor	62.6	0.3	0.2	73.1	81.3
Non-poor	28.6	0.2	1.4	38.9	50.2

Source: authors' calculation from the BLS

In addition to the headcount index, which shows the percentage of the population having their income lower than the poverty line, used in the above analysis, the poverty gap index provide an indication on the cost of eliminating poverty. The Mong group not only comprises of the most poor households but also is the one with the highest 'cost' of eliminating poverty. On average, it costs 29 percent of the poverty line per person to pull a Mong household out of poverty. In addition, the most poverty-reduction costly groups include the other groups in the Central Highlands (27 percent), and the other minorities (24 percent). Despite having the lowest poverty rate, the cost of eliminating poverty for the poor Majority is as high as that of the H're, who ranked at the bottom two as the poorest ethnic groups. The households with the lowest cost of fighting against poverty consist of the Tay, Muong, Nung, Dao, and Khmer.

There is a spatial pattern in poverty across the country. The Northern Uplands remain the poorest areas, ranked before the Central Coast and Central Highlands. Poverty also varied with levels of Vietnamese language proficiency. Those who had no or limited Vietnamese language ability were found amongst the poorest (i.e. 54 percent of them living under the poverty line). Those who spoke both Vietnamese and ethnic languages were found as poor as the average household in the poorest commune. And the those who spoke only Vietnamese and/or very little ethnic languages are the most better-off (the poverty rate of this group is almost identical to the Majority). In addition, there is also a considerable difference in the incidence of poverty across the two gender groups of household heads. As shown in Table 1.1, nearly 44 percent of the male-headed households were poor while the poverty rate of the female-headed was only 33 percent.

The final rows of Table 1.1 suggest important policy implications. In these two final rows, we calculated poverty rate using the income data collected from households for one group who was classified as 'poor' and the other classified as 'non-poor'. What matters is that the 'poor' group are eligible for support from poverty reduction policies and programmes while the non-poor are not. Whether a household is classified as 'poor' or 'non-poor' in this case is approved by the authorities. We found that only 62 percent of the 'poor' group was actually poor. It implies a leakage rate of 38 percent, suggesting that 38 percent of the poor who have received support from poverty reduction programmes were actually not eligible for having those support. In addition, we reported 28 percent of the non-poor was actually poor, but were excluded from the supports that they should have received. This high leakage rate raises a serious question on the targeting efficacy of the current poverty

reduction policies and programmes in the extremely difficult communes of the country. This study is not the first to raise this question. Similar concerns were suggested in MOLISA-CEMA-UNDP (2009) when assessing the Programme 135-II and the National Targeted Program for Poverty Reduction (NTP-PR).

1.2 Inequality: the ethnic minorities lagging behind

Along with the poverty level which shows the percentage of the population living under a certain level of income, how income is distributed is also interesting to investigate. The central question is whether income has been equally distributed among the population. This is referred to as the analysis of inequality. Together with poverty reduction, inequality has been receiving growing attention in Vietnam as increase in economic growth is likely to result in disproportionate changes in living standard of different groups, suggesting an increasing inequality. The most widely used measure of inequality is the Gini coefficient which ranges between zero and one. The closer to zero, the more equally income is distributed; and the closer to 1one the less equally income is distributed. In addition to the Gini coefficient which is considered as a relative measure of income inequality, we also analyze the distribution of income in the extremely difficult communes using absolute measures of inequality such as percentile dispersion ratios. Using the Gini index, one of the most common measures of *relative* inequality, World Bank (2007) using expenditure per capita reported that the Gini rose from 0.34 in 1993 to 0.35 in 1998 and 0.37 in 2006, showing a modest increase over this period.

One of the most commonly mentioned aspects of this growing inequality is the ethnicity inequality. Between 1993 and 2006, Vietnam's national poverty headcount fell from 58.1 to 16 percent, while educational enrolments, life expectancy and other measures of human development increased dramatically. In the same period, the poverty headcount rate among Vietnam's broadly defined ethnic minorities fell from 86.4 to 52 percent between 1993 and 2006. School enrolments, nutritional indicators and life expectancy also remain low among the minorities (VASS, 2007; World Bank 2007). According to Baulch *et al.* (2008b), the gap in per capita expenditure between the Majority and minority has widened by nearly 15 percentage points between 1993 and 2004. The previous research on inequality in Vietnam has however been based on expenditure. Using income data calculated from the BLS, this section provides another picture of inequality in the P135-II communes.

In Table 1.2 we report the estimates of the inequality measures for the whole sample of the extremely difficult communes, as well as for sub-groups identified by ethnicities, regions, gender of the household head, languages used in the daily life and self-declared poverty status. The average GINI coefficient based on the baseline survey data is 0.52, suggesting

that the relative inequality of income distribution is fairly high in the extremely difficult communes of the country. For comparison, we estimated the income-base inequality measures using the rural sample of the VHLSS 2006. For the rural areas, we found the Gini of 0.40, which is significantly lower than the Gini coefficient in the extremely difficult communes. This difference could be taken to suggest an important policy implication. Using the BLS on the extremely difficult communes, one of the prior assumption is that inequality in this poorest areas should be lower than the national average. However, what reported in this study suggests the opposite. Using the income data, the level of inequality in the extremely difficult communes is surprisingly higher than that of the rural average. This suggests a difficult task for the Government and donors. Further efforts are clearly needed to reduce the widespread poverty in these extremely difficult communes. But high inequality certainly warrants attention to deal with unequal income distribution in this areas.

Table 1.2 Income distribution in the extremely difficult communes

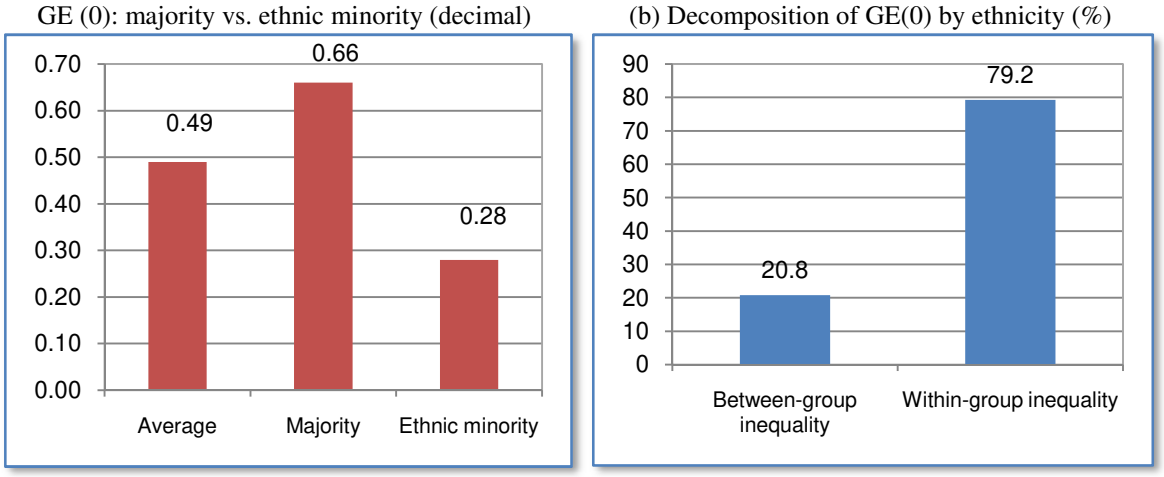
	Gini	**p90/p10**	**p75/p25**	**GE(0)**
Average	0.5	7.8	2.8	0.5
Ethnic groups				
Majority	0.6	9.2	3.0	0.7
Ethnic minority	0.4	6.0	2.6	0.3
Tay	0.4	6.1	2.6	0.3
Thai	0.4	6.9	2.7	0.3
Muong	0.4	6.0	2.7	0.3
Nung	0.4	4.8	2.1	0.2
Mong	0.3	4.0	2.0	0.1
Dao	0.3	5.0	2.1	0.2
Others in Northern Uplands	0.4	6.4	2.7	0.2
Bana	0.3	5.7	2.6	0.2
H're	0.3	4.4	1.9	0.2
Co Tu	0.3	3.9	2.7	0.2
Others in Central Highlands	0.4	6.9	2.6	0.3
Khmer	0.4	8.3	2.4	0.3
Others	0.4	6.8	2.7	0.3
Regions				
Red River Delta	0.4	6.4	2.7	0.2
North East	0.3	5.7	2.6	0.2
North West	0.3	4.4	1.9	0.2
North Central Coast	0.3	3.9	2.7	0.2
South Central Coast	0.4	6.9	2.6	0.3
Central Highlands	0.4	8.3	2.4	0.3
South East	0.4	6.8	2.7	0.3
Mekong River Delta	0.5	7.5	2.8	0.5

Gender of household heads				
Male	0.5	7.5	2.8	0.5
Female	0.5	13.3	3.3	0.4
Daily language				
No or little Viet	0.4	6.0	2.6	0.3
Both Viet and ethnic	0.4	6.2	2.5	0.3
No or little ethnic	0.6	9.2	3.0	0.6
Poor vs. non-poor				
Poor	0.2	2.9	1.8	0.1
Non-poor	0.4	4.1	2.2	0.4

Source: authors' calculation from the BLS

Figure 1.3 below shows the estimates of the Theil's L index (the Generalized Entropy with the weighting parameter equal to zero) of the whole sample in the extremely difficult communes and the sub-samples for the majority and ethnic minority groups. Panel (b) decompose the average income inequality into two component, the 'between-group' inequality and another is the 'within-group' inequality. It shows that nearly 21 percent of the noted income inequality is attributable to between-group inequality (i.e. the difference in the income level between the Majority and the ethnic minority group. The remaining 79 percent is however explained by the differences within each of the two ethnic groups. This suggests an important message: the high inequality noted in the extremely difficult communes is not mainly attributed to differences in income between ethnic groups. Instead, differences within each ethnic group represent the major source of inequality.

Figure 1.3 Decomposition of inequality by ethnicities



Source: authors' calculations based on the BLS

At a lower disaggregation of ethnicities, Table 1.2 shows that the scores of inequality measures are fairly similar. The majority group holds the top position meaning the highest inequality in the income distribution. It is interesting to see that all the groups of minorities other than the majority have the scores of inequality measures lower than the averaged

scores. Since the majority account for nearly 90 percent of the population, the dominance of the majority is, however, not surprising.

Across the spatial regions, the Gini coefficient in the Mekong River Delta is 0.63, standing at the top. In contrast, with the lowest Gini of 0.37 the relative income distribution in the South Central Coast regions is the most equal. Central Highlands region ranks the second most relatively unequal, just behind the Mekong River Delta. However, an absolute inequality measure which is the ratio of income level at the 95th percentile over the income level at the 10th percentile reveals that the dispersion of income between the top "rich" and the "poorest" is the highest in the Central Highlands. The dispersion ratio is 12.60 in the Central Highlands. The Mekong River Delta stands at the second top with the dispersion ratio of 10.09. The 75th/25th dispersion ratio which captures the information about incomes towards the middle of the income distribution also suggests the similar situation. The Central Highlands and Mekong River Delta rank at the top and second in terms of income inequality. The South Central Coast has the lowest score of the inequality measures.

1.3 Other aspects of poverty in the extremely difficult communes

The above analysis of poverty and inequality is based on income as a welfare measure. In this section, we examine other non-income aspects of poverty such as household landholding, valuable assets, access to essential public goods and services such as clean water and electricity.[12]

It is arguable that land could be the most important physical asset of rural households, especially for those residing in the extremely difficult communes where livelihoods are mainly in agriculture. Table 1.3 summarizes the levels of annual cropland, perennial land and forestry with disaggregation by the ethnic groups, spatial regions, gender of household heads, daily language and poverty status. Possession of annual cropland across the majority and the ethnic minority is not considerably different. An average household in the extremely difficult communes had 1413 m^2 of annual cropland. The majority household holds on average 1353 m^2 of cropland, while the ethnic minority household has slightly less of 1442 m^2. Comparing between different ethnic groups, it is found that the Tay, Muong, and Nung possess lower annual cropland while the Mong, Bana, and other ethnic groups in the Northern Uplands are best endowed. These figures do not however reveal any information on land quality. The current regulations classify annual cropland into six groups and perennial land into give categories. The ascending ranking of classification is

[12] This analysis of access to basic public goods and services will be implemented at the household level. In chapter 2 of this study, further detailed analysis on commune-level access to these goods and services will be provided.

associated with the lower quality of land. These categories are used for the authorities to tax on the land uses of households. In this report, we define annual cropland and perennial land as 'good land' if they belong to the first two categories of this classification. Table 1.3 shows clearly that the majority has an absolute advantage in possessing quality cropland. Despite holding more annual cropland than the majority, the ethnic minority holds the amount of quality land that is only equal to 13 percent of the majority. All ethnic minority groups, accounting for 74 percent of the total population in the extremely difficult communes, possess only 24 percent of quality annual cropland. As Chapter 3 of this study will analyze, crops income is the most single important income source for households in the extremely difficult communes. The fact that the majority posses the most of fertile cropland in this area might translate to the income gap between the majority group and the ethnic minority (see Chapter 4 for more details).

Table 1.3 Landholdings in the extremely difficult communes (m^2)

	Annual cropland		**Perennial land**		**Forestry land**
	Total	Good land	Total	Good land	
Average	1412.7	193.1	370.6	11.8	1461.1
Ethnic groups					
Majority	1353.2	462.9	502.9	14.8	603.6
Ethnic minority	1441.7	61.4	306.0	10.4	1879.7
Tay	853.8	34.5	288.8	0.0	3016.5
Thai	1479.0	32.8	202.3	0.0	2064.7
Muong	970.3	121.7	604.8	40.6	1631.4
Nung	1076.7	36.2	497.3	76.6	2506.9
Mong	2206.3	13.0	100.2	0.0	1166.6
Dao	1648.8	137.1	415.5	26.5	4804.5
Others in Northern Uplands	2676.2	0.0	130.6	0.0	3876.1
Bana	2257.4	52.3	143.8	0.0	199.4
H're	1596.7	100.1	1150.5	0.0	996.6
Co Tu	1517.0	0.0	58.8	0.0	552.8
Others in Central Highlands	1514.3	17.4	632.2	2.2	36.4
Khmer	1103.1	146.3	154.0	2.4	0.0
Others	1490.8	0.1	161.6	0.0	279.8
Regions					
Red River Delta	463.8	158.7	57.6	5.9	97.2
North East	1134.0	57.9	338.6	14.1	2771.8
North West	2113.0	29.1	144.7	2.6	1559.2
North Central Coast	769.2	41.4	124.1	1.3	2514.1
South Central Coast	1275.0	60.9	428.3	0.0	478.7
Central Highlands	1476.8	9.5	2131.9	0.1	60.7
South East	1597.1	39.8	1044.2	104.9	0.1
Mekong River Delta	1717.9	761.4	38.2	1.0	13.1
Gender of household heads					
Male	1490.7	216.7	384.2	13.7	1547.4
Female	936.6	49.2	287.3	0.1	934.5
Daily language					
No or little Viet	1582.4	58.2	239.5	11.4	1879.6

Both Viet and ethnic	1264.6	80.7	474.4	8.0	2010.1
No or little ethnic	1277.7	407.0	490.9	14.0	721.9
Poor vs. non-poor					
Poor	1016.3	31.2	253.1	7.1	1518.5
Non-poor	1708.0	313.7	458.1	15.3	1418.3

Source: authors' calculation from the BLS

Interestingly, cropland holding of the female-headed households are considerably lower than that of the male-headed counterparts. While the average female-headed household had an area of nearly 937 m^2, the corresponding figure of the male-headed household is 1490 m^2. This represents a considerable disadvantage of the female-headed household, which could translate to the difference in the poverty rate between these two groups. It is not surprised to find that the non-poor are substantially better endowed that the poor, both in the average total cropland and quality cropland.

As the extremely difficult communes are located in the remote (and often mountainous areas), one could expect that forestry is an important source of income-generating activities. Possessing forestry land is one of few aspects that the ethnic minority are at the advantage compared to the majority. On average, the ethnic minority holds three times higher than the majority in terms of forestry land. This advantage is especially pronounced for the ethnic minority groups in the Northern Uplands and North Central Coast. This advantage is also highlighted in Pham *et al.* (2010) using the data from the V(H)LSS reported that ethnic minorities possess more land than the majority and that endowment advantage tend to increase over time. At the start of the land reform in 1993, an average ethnic minority-headed household possessed 63 percent more land (all types) compared to that of the majority headed household. After fourteen years, this advantage rose up to 154 percent. Considering different types of land, this advantage of the ethnic minorities is also observed. This advantage is most pronounced for forestry landholding. On average, ethnic minority-headed households possess ten times larger forestry land area than majority-headed households. However, whether this advantage could translate into better income-generating opportunities is a concern. As Chapter 3 of this study will show, forestry is a modest (and ignorable for some ethnic groups) source of income for the households residing in the extremely difficult communes.

In addition to landholding as arguably the most important physical assets, Table 1.4 information on the possession of valuable durable assets, including motorbike, TV, radio, telephone, refrigerator and electric cooker, held by the households in the extremely difficult communes. Possession of these assets are substantially different between the Kinh –Hoa group and the ethnic minority. For instance, 54 percent of the majority had a motorbike while only 40 percent of ethnic minorities had that vehicle. There is no doubt that valuable assets holdings in the extremely difficult communes are lower the rural

average level. It is however noted that possession gaps of key asset holdings between the extremely difficult communes and the rural areas of Vietnam are significantly high. Our estimations using the VHLSS 2006 reveal that, nearly 53 percent of the rural population possessed a motorbike; 81 percent having a TV; 23 percent having a telephone (fixed-line phone or mobile), and 53 percent owned an electric cooker. The corresponding numbers in the extremely difficult communes, as reported in Table 1.4, are 45, 58, 19, and 27 percent, respectively.

Table 1.4 Holdings of valuable assets (%)

	Motor-bike	TV	Radio	Tele-phone	Refri-gerator	Electric cooker
Average	44.9	58.0	5.9	18.6	5.5	27.1
Ethnic groups						
Majority	54.3	78.5	4.6	38.4	10.6	52.0
Ethnic minority	40.3	48.0	6.5	9.0	2.9	15.0
Tay	52.5	67.1	3.4	15.1	7.3	18.2
Thai	43.9	49.3	5.1	5.0	1.3	10.7
Muong	45.2	68.5	4.0	11.4	6.1	22.8
Nung	48.1	55.5	6.4	12.8	6.5	16.2
Mong	22.6	15.7	10.0	1.7	0.0	2.3
Dao	45.6	46.9	8.7	5.9	1.6	4.5
Others in Northern Uplands	33.8	35.8	13.0	2.6	0.0	3.3
Bana	56.6	46.1	2.2	0.2	0.0	8.0
H're	36.6	42.7	3.4	2.2	2.2	7.4
Co Tu	13.6	36.3	6.8	2.2	0.0	1.0
Others in Central Highlands	29.2	50.8	7.7	2.9	0.4	12.6
Khmer	36.6	44.0	8.8	21.5	2.7	39.2
Others	39.5	47.1	2.2	4.8	1.8	12.6
Regions						
Red River Delta	53.9	90.9	2.0	26.8	5.2	54.1
North East	44.3	55.1	5.2	12.0	5.6	15.1
North West	49.1	47.1	10.0	8.6	3.6	11.9
North Central Coast	37.6	55.8	2.0	13.3	5.4	27.1
South Central Coast	39.6	49.7	2.4	14.8	5.1	22.0
Central Highlands	63.4	67.3	8.0	25.0	7.7	37.6
South East	70.8	77.2	5.6	29.9	12.1	55.2
Mekong River Delta	33.7	62.3	6.6	34.8	4.3	44.9
Gender of household heads						
Male	46.6	58.2	6.1	17.7	5.1	25.9
Female	34.5	56.7	4.5	24.1	8.0	34.7
Daily language						
No or little Viet	35.2	40.8	7.7	6.2	1.3	12.8
Both Viet and ethnic	49.8	63.0	4.5	13.9	5.2	18.5
No or little ethnic	59.2	68.4	2.2	18.9	10.1	23.6
Poor vs. non-poor						
Poor	28.9	42.5	5.7	4.8	1.5	10.5
Non-poor	56.8	69.6	6.1	29.0	8.4	39.5

Source: authors' calculation from the BLS

The living standards of the rural areas in general and the extremely difficult communes in particular are also reflected in housing conditions. The BLS allows us to classify houses into three types: permanent house, semi-permanent house, and temporary house. Reflecting the poor condition in this area, most of households sheltered in either semi-permanent or temporary houses. Only 7.4 percent of the households had permanent houses. Moreover, 39 percent of the households residing in the extremely difficult communes happened to have temporary houses. Nevertheless, the housing conditions of the majority group are still slightly better than these of the ethnic minority. Since the questions on housing conditions between the baseline survey and the VHLSSs are exactly identical, we are able to make comparisons using the two sources of data. Housing conditions in the whole rural areas of Vietnam are far better than those in the extremely difficult communes. For instance, in 2006, only 19 percent of the rural population lived in a temporary house, as compared to 39 percent in the extremely difficult communes as appeared in the BLS in 2007. The proportion of rural population living in a permanent house (or a villa) is two times higher than in the poorest area (i.e. 17 percent vs. seven percent).

Accessibility to public goods and services also reflects the living standard. The majority have very good assess ability to clean water and national power grid. As shown in Table 1.5, the incidence of having access to these services is very high amongst the majority, particularly, 87 percent of the majority had access to clean water for cooking, and 91 percent had access to the national power grid. In contrast, the incidence of access to these key services by the ethnic minority is considerably lower. With the exception of access to national electric grid, the access rates of the ethnic minority to clean water, sanitary toilet facilities are at least two times less than these of the majority. Particularly, the access rate of some individual groups to clean water, electricity, and sanitary toilets are very low, especially for the H'mong, Dao, Co Tu, and other ethnic groups in the Central Highlands. When using the data on the sub-sample of the P135-II communes, we found that 53 percent of the P135-II households had clean drinking water.[13] Given the current situation of using drinking water, there is a big challenge of achieving the target of 80 percent households having clean drinking water by the end of the Programme in 2010. Access to sanitary toilets is worryingly low in the extremely difficult communes.[14] It is reported that only eight percent of the households residing in this area had access to sanitary toilets. Most of the population thus relied on 'other types' of toilets. The BLS does not provide information

[13] We adopted the commonly used definition of clean water applied in a number of poverty reports by WB and VASS. Accordingly, 'clean water' is here defined based on the internationally commonly-used definition of clean water. Accordingly, clean water includes the following sources: (1) private tap water inside the house, (2) private tap water outside the house, (3) public tab water, (4) water pumped from deep drill wells, (4) water from hand-dug and reinforced wells, (5) rain water, (6) bought water (in tank, bottle,…), (7) small water tank, and (8) water tank.

[14] As commonly used in the previous studies, flush toilet, suilabh, and double vault compost latrine are considered hygienic types of toilets.

on these 'other' types. But it is most likely that 'others' in this context referred to simple and hence unhygienic types of toilets. Although the information on toilets used by households does not capture all aspects of hygienic living conditions of the households, it could be taken to suggest poor hygienic conditions in the extremely difficult communes.

Table 1.5 Access to clean water, national power grid and sanitary toilet (%)

	% using clean water for cooking	% using clean water for living	% having access to national power grid	% using a sanitary toilet
Average	53.6	50.9	73.6	8.2
Ethnic groups				
Majority	86.9	85.1	91.1	16.6
Other ethnicities	37.4	34.2	65.1	4.1
Tay	37.7	34.2	81.7	3.6
Thai	27.8	23.6	59.9	1.5
Muong	48.3	48.2	90.6	4.6
Nung	28.0	25.5	73.8	3.3
Mong	21.2	18.4	36.5	0.8
Dao	10.4	10.4	36.3	3.2
Others in Northern Uplands	20.9	17.2	26.9	1.1
Bana	32.9	38.9	97.9	0.0
H're	48.1	48.1	67.3	1.8
Co Tu	0.5	0.0	66.3	0.0
Others in Central Highlands	19.4	19.8	75.4	1.3
Khmer	94.9	84.8	75.6	16.2
Others	28.8	26.2	82.1	1.3
Regions				
Red River Delta	97.1	97.1	100.0	1.6
North East	37.7	35.2	68.3	3.9
North West	25.5	22.6	54.3	4.0
North Central Coast	44.0	42.5	81.6	2.8
South Central Coast	49.6	48.0	75.3	8.2
Central Highlands	48.0	49.1	85.2	7.2
South East	81.3	81.3	87.0	17.6
Mekong River Delta	95.9	89.9	82.2	19.7
Gender of household heads				
Male	51.2	48.3	72.0	7.2
Female	68.1	67.2	83.7	14.5
Daily language				
No or little Viet	33.7	29.5	59.0	3.3
Both Viet and ethnic	37.6	37.1	76.6	5.1
No or little ethnic	64.6	63.4	84.3	7.7
Poor vs. non-poor				
Poor	41.5	39.3	63.1	3.4
Non-poor	62.6	59.6	81.5	11.8

Source: authors' calculation from the BLS

In addition to quantitative indicators, poverty measurement should also make use of other qualitative information to best capture the multifaceted nature of poverty. The BLS

provides data on self-assessment of the lack of essential commodities for living including food, clean water, medicines, energy, and cash to pay for children's tuition fee. These are reported in Table 1.6 to reflect how the household residing in the poorest commune assess their shortage of key goods. On average, 45 percent of the households revealed that they did not have enough food, 44 percent lacked of clean water, 44 percent lacked of medicines for health care, and 32 percent said that they did not have enough cash to pay for education of their children. More importantly, these shortage rates are considerably higher for the ethnic minority compared to those of the majority. The incidence of households not having enough food is particular high in the Central Highlands. Our observations at various location suggest that hunger is most severe before the cultivation time, when households have eaten up foods harvested from the previous crops and need money to purchase seeds, fertilizer for the coming reason.

Table 1.6 Self-assessment about shortages of crucial goods (%)

	In shortage of			
	Food	Clean water	Medicines	Tuition fees of children
Average	44.8	43.7	43.9	31.8
Ethnic groups				
Majority	32.5	24.4	29.6	25.9
Ethnic minority	50.8	53.2	50.9	34.7
Tay	36.2	34.6	38.7	41.8
Thai	57.0	79.5	74.6	54.3
Muong	55.6	35.2	54.6	44.8
Nung	48.0	53.8	36.9	32.0
Mong	51.2	66.8	43.3	17.4
Dao	42.5	62.3	54.1	24.7
Others in Northern Uplands	63.1	81.5	73.2	44.9
Bana	70.9	37.3	25.0	8.1
H're	64.5	44.8	97.6	34.6
Co Tu	63.5	54.6	65.5	66.6
Others in Central Highlands	72.8	62.2	51.8	38.3
Khmer	37.8	29.5	28.7	17.7
Others	75.3	48.5	55.2	21.9
Regions				
Red River Delta	64.6	11.5	63.9	50.6
North East	44.0	44.7	41.8	31.9
North West	49.1	68.0	65.8	39.6
North Central Coast	53.4	59.7	67.6	47.6
South Central Coast	48.1	35.8	59.3	37.2
Central Highlands	60.1	46.1	39.0	17.2
South East	60.7	36.6	17.0	25.2
Mekong River Delta	25.2	21.1	19.3	19.1
Gender of household heads				
Male	44.7	45.1	44.6	32.6
Female	45.6	35.2	39.3	26.9
Daily language				

No or little Viet	53.5	57.7	51.3	32.3
Both Viet and ethnic	47.5	46.0	54.1	38.9
No or little ethnic	41.2	39.6	39.2	39.8
Self-declared poverty status				
Poor	62.3	52.3	52.7	39.5
Non-poor	31.7	37.4	37.3	26.1

Source: authors' calculation from the BLS

Figures on the shortage of cash to pay for children's tuition fees are noteworthy. It should noted that these extremely difficult communes are the target of several policies and programmes to support poverty reduction. One key areas of support is to provide access to education services. Different sources of assistance have thus been spent for getting poor children to schools. However, the incidence of lacking cash to pay for children' tuition fees are very high for some ethnic groups. For instance, 67 percent of the Bana revealed that they were short of cash to sending their children to schools. The Thai, Tay, Muong, the other ethnic groups in the Northern Uplands and Central Highlands also revealed a very high shortage of cash for tuition fee contribution. Surprisingly, the H'mong are amongst the poorest but exhibit a low shortage of cash for paying tuition fees. As suggested by the high leakage rate of poverty reduction programmes in the first section of this chapter, This raises a concern on the efficacy of the current support to provide access to education services.

Table 1.7 Self-assessment about the current living standard (%)

	Very happy	Happy	Moderate	Unhappy	Very unhappy
Average	0.7	13.9	32.7	48.0	4.7
Ethnic groups					
Majority	0.7	19.2	34.7	42.5	2.8
Ethnic minority	0.6	11.3	31.7	50.7	5.7
Tay	0.7	12.7	32.3	50.7	3.7
Thai	0.1	6.3	29.1	57.5	7.0
Muong	0.0	6.3	36.8	48.1	8.8
Nung	1.7	9.7	41.3	46.4	1.1
Mong	0.5	17.0	29.9	49.7	3.0
Dao	0.1	14.3	37.1	46.0	2.5
Others in Northern Uplands	0.0	7.5	29.9	58.7	3.9
Bana	0.0	5.6	21.7	65.2	7.6
H're	0.6	1.7	41.1	55.8	0.8
Co Tu	2.2	9.9	40.4	47.5	0.0
Others in Central Highlands	0.2	5.6	25.4	66.9	1.9
Khmer	2.3	19.5	27.1	38.7	12.4
Others	0.0	6.2	32.2	51.6	10.0
Geographical regions					
Red River Delta	0.0	5.0	29.3	49.0	16.7
North East	0.4	13.8	33.0	49.1	3.8
North West	0.3	10.5	37.7	47.2	4.3
North Central Coast	0.0	5.6	30.8	56.6	7.0

South Central Coast	0.6	7.1	50.0	41.8	0.5
Central Highlands	1.8	9.0	24.4	59.7	5.2
South East	0.8	9.8	39.0	49.5	0.9
Mekong River Delta	1.4	26.9	25.9	40.0	5.9
Gender of head					
Male	0.5	13.8	33.1	48.4	4.2
Female	1.7	14.2	30.2	45.9	8.1
Daily language					
No or little Viet	0.2	11.7	31.4	51.1	5.6
Both Viet and ethnic	1.9	9.9	33.0	48.5	6.7
No or little ethnic	0.5	12.7	31.1	51.9	3.8
Poor vs. non-poor					
Poor	0.1	6.6	25.5	60.5	7.2
Non-poor	1.1	19.3	38.1	38.7	2.9

Source: authors' calculation from the BLS

To conclude this important chapter of the current study, we explored the data on self-assessments of the household residing in the extremely difficult communes on their satisfaction with the current living standards. Not surprisingly, more than a half of them were unhappy with their welfare status. The most powerful figure in Table 1.7 is that almost no households were 'very happy' with their living conditions. These simple figures convey very important message: through the Government and donors have brought into the extremely difficult communes several policies and programmes for poverty reduction, there is a long way ahead. More importantly, as poverty in this difficult area is stubbornly high, future efforts for poverty reduction in the extremely difficult communes will become more expensive compared to poverty reduction in the rural areas or to what these were in the past two decades. Certainly, it warrants that continuing the support for poverty reduction for the ethnic minority is no doubt and urgently needed.

Chapter 2. Access to Public Services of the Poor Ethnic Minorities

Access to public services and basic infrastructures are considered to be a necessary condition for escaping poverty in the developing world and Vietnam is not an exception. Guiding by that consensus, a plethora of policies and programmes have invested in the remote areas of the country, aiming to provide and/or improve access to public services and infrastructures. This is closely reflected in the P135 (through different stages), more recently the Programme 30A on the poorest districts, as well as a number of other policies and programmes to support the poor ethnic minorities (see chapter 5). This chapter, answering the second research question, will examine the access to education, healthcare services, and basic infrastructure facilities in the extremely difficult communes surveyed in the BLS.

2.1 Access to education

Education is widely found in the literature on Vietnam as a crucial factor determining household welfare, labour market participation and earnings (see Glewwe *et al.* 2004). Access to education services is thus crucial for poverty reduction. Together with socio-economic development, education of people has been improved. In addition, Viet Nam has made commitment to achieve the Millennium Development Goal in Universal Primary Education. According to the VHLSSs, the percentage of people above 22 years old having upper secondary school degree increased from 18 percent in 2002 to 26 percent in 2006. The ethnic minorities have also achieved significant improvement in education over time (World Bank, 2007).

In the context of the extremely difficult communes covered in the BLS, all communes have the program of illiteracy eradication. However, there are still a large gap in education achievements between the ethnic minorities and the majority group. Table 2.1 presents the percentage of people with different educational degrees in the extremely difficult communes. In this poorest region, only seven percent of people aged above 22 completed upper secondary school. Less than one percent of people have post secondary school. More than 50 percent of people do not have any educational degree. Within the extremely difficult communes, there is also inequality in education between ethnic minorities. The majority, Tay, and Muong groups have much better education than other ethnic minorities. On the contrary, ethnic minority groups such as the Mong, Bana, H're have lowest education degrees.

Education degree also varies across regions. Table 3.1 shows that people in the Red River Delta have higher education degrees than other region. The percentage of adult people without education degree is around 12 percent in the Red River Delta, while this percentage for other regions is higher than 40 percentage. The North West and South Central Coast are regions which have lowest education levels in the countries. There is also a difference in education between poor and non-poor in the extremely difficult communes. The proportion of adult poor and non-poor without education degree is around 58 percent and 40 percent, respectively.

Table 2.1 Educational degrees by ethnic groups (%)

	No degree	Primary	Lower secondary	Upper secondary	Post secondary
Average	52.0	25.6	15.4	6.5	0.6
Ethnic groups					
Majority	33.0	33.3	22.3	10.4	1.0
Ethnic minority	61.3	21.9	11.9	4.5	0.4
Tay	34.9	33.1	22.0	9.8	0.2
Thai	58.9	25.3	11.1	4.3	0.5
Muong	28.9	30.5	29.9	10.3	0.4
Nung	52.5	26.5	14.6	6.2	0.2
Mong	91.5	5.8	2.3	0.5	0.0
Dao	79.0	12.5	6.3	2.0	0.1
Others in Northern Uplands	76.8	14.6	6.5	1.8	0.3
Bana	83.1	11.9	2.6	2.4	0.0
H're	81.3	15.2	3.0	0.6	0.0
Co Tu	70.3	19.8	5.1	4.8	0.0
Others in Central Highlands	78.5	14.0	6.3	1.2	0.0
Khmer	64.8	26.3	5.3	2.1	1.7
Others	77.2	14.7	6.6	1.3	0.2
By regions					
Red River Delta	12.5	21.8	54.6	11.1	0.0
North East	52.5	23.5	17.2	6.7	0.1
North West	62.1	18.5	12.7	6.2	0.6
North Central Coast	41.4	29.6	18.9	9.5	0.8
South Central Coast	64.0	20.7	9.1	4.3	2.0
Central Highlands	55.1	22.5	16.7	5.1	0.6
South East	52.1	30.9	12.9	3.4	0.8
Mekong River Delta	49.7	33.7	10.0	5.9	0.8

Source: authors' calculations from the BLS

Low education means poor human resource and low labour productivities. To increase education, the Government has committed to universal primary school. According the 2006 VHLSS, the school enrolment rate for children age between six and 11 year old is 97 percent. This rate is very high compared with other low-income and middle-income countries. Yet, the success in education is less clear for ethnic minorities in the extremely difficult communes. Table 2.2 estimates the enrolment rate for primary and secondary

schools. Nearly 80 percent of children attend school in 2007 in this area. The schooling rate for lower-secondary and upper-secondary is much lower than the school rate for primary school, estimated at 60 percent and 38 percent, respectively. The schooling rate is different for different ethnic minorities, especially at the high educational level. The majority, Tay, Muong, Nung, and Co Tu have substantially higher rates of upper secondary enrolment than other minority group. The Bana, H'mong, H're and Khmer are groups which have very low education enrolment rate. The education enrolment differs for various regions. The Red River Delta and Central Coast have higher schooling rates than other regions. The ethnic minorities in the North West and Mekong River Delta have the lowest schooling rate at the secondary level. Poor children are more likely to have higher drop-out than non-poor children.

Table 2.2 School enrolment rate by ethnic minorities (%)

	Primary	**Lower secondary**	**Upper secondary**
Average	79.4	59.8	38.0
Ethnic groups			
Majority	83.1	64.1	52.0
Ethnic minorities	78.3	58.6	32.3
Tay	79.2	73.6	57.8
Thai	76.6	71.8	35.0
Muong	79.8	73.3	47.7
Nung	87.8	76.4	50.8
Mong	74.3	42.7	9.7
Dao	82.1	53.2	19.8
Others in Northern Uplands	79.4	53.9	16.7
Bana	87.4	48.1	6.6
H're	81.6	55.7	15.8
Co Tu	81.2	81.3	68.3
Others in Central Highlands	77.6	57.7	29.5
Khmer	78.3	38.0	13.0
Others	78.7	38.3	22.0
Regions			
Red River Delta	78.5	73.7	67.9
North East	77.9	62.0	41.6
North West	78.0	60.4	29.3
North Central Coast	77.7	71.3	47.8
South Central Coast	81.8	62.3	45.1
Central Highlands	84.2	55.8	35.6
South East	70.5	60.5	31.7
Mekong River Delta	83.9	44.3	29.5
Daily language			
No or little Viet	78.6	55.4	25.6
Both Viet and ethnic	77.0	67.5	43.8
No or little ethnic	82.2	65.8	52.5
Poor vs non-poor			
Poor	77.5	55.9	30.3
Non-Poor	81.6	63.9	44.4

Source: authors' calculations from the BLS

It should be noted that 67 percent of the extremely difficult communes appeared in the BLS are actually covered by the P135-II. Calculating the enrolment rate for these communes, we observe a big gap between the current rate of 77 percent and the target rate of 95 percent. It suggests that substantial investment from the P135-II will be needed to ensure the target of by 2010. There would be a two-year period from the time of conducting the BLS and the end of 2010 for the Programme to close the gap. This clearly represents a challenge for the P135-II in the remaining time. This is particularly worrying given the drop-out rate are quite high in the extremely difficult communes. Pham *et al.* (2010) suggest that most school drop-outs occur during the transitions from primary to lower secondary school and from lower to upper secondary school. In mountainous areas, this corresponds to the age at which children usually need to move from village classrooms to the main primary school (usually located in the commune centre). In the Northern Uplands, studying in the main primary school often involves a walk of an hour or more to the commune centre, which obviously acts as a disincentive for children from outlying village attending primary school. Furthermore, as the other northern minorities are more likely to live in outlying villages than the Tay-Thai-Muong-Nung, children from the other northern minorities are disproportionately affected.

The BLS provides information on main reasons for not attending school at the individual level. Table 2.3 reports the distribution of children by reasons for not attending schools. The main reason for not attending schools is over school age. The second biggest problem for child school is that children have to work. It is obvious that parents play the main role in their children's education. Since adult ethnic minorities tend to have low education degrees, they can pay less attention to their children's education.

Table 2.3 Reasons for school drop by ethnic minorities (%)

	Over aged	Long distance to school	Do not have money	Do not want to learn	Have to work	Other reasons
Average	59.4	0.6	3.4	5.2	27.3	4.2
Majority	57.3	0.8	3.5	6.1	27.8	4.6
Ethnic minorities	64.0	0.1	3.2	3.2	26.4	3.2
Tay	58.5	1.2	6.3	9.3	18.2	6.5
Thai	57.5	0.6	5.2	5.2	29.7	1.8
Muong	39.0	0.2	2.2	2.4	53.5	2.7
Nung	67.0	1.3	3.2	7.7	16.7	4.1
Mong	49.1	0.9	1.1	7.8	35.4	5.7
Dao	54.9	3.4	2.8	6.5	25.7	6.8
Others in Northern Uplands	55.7	0.5	4.8	10.1	22.3	6.6
Bana	51.6	0.0	0.0	2.7	40.8	4.9
H're	68.9	0.0	2.1	1.3	25.7	2.1
Co Tu	94.0	0.0	0.9	3.1	0.4	1.7
Others in Central Highlands	61.6	0.0	0.7	7.0	24.7	6.0
Khmer	71.3	0.0	4.1	3.4	17.1	4.2

Others	69.0	0.2	1.5	5.4	19.7	4.3

Source: authors' calculations from the BLS

Table from 2.4 examines the difficulties in education for pupils in primary and secondary schools. For small children at the primary school, language is the main difficulty for their study. Pham et al. (2009) reported that more pupils drop out during the primary level in remote areas compared to the rural areas in general. This suggests the necessity of having language classes for ethnic minority children at the primary schools as highlighted in World Bank (2009). For the pupils those passed the primary education level to higher levels, their Vietnamese language ability was enhanced during the primary education and thus language does not represent a main challenge for their study. For these grades, lack of educational materials such books and notes become more pronounced as a reason of not attending schools. Therefore, supporting language ability at the primary schools should be considered as a priority for further investment in education in the extremely difficult communes.

Table 2.4 Difficulties in attending schools (%)

	No difficulty	Lack of educational materials	Difficulty in Kinh language	Lack of educational facilities in school	Other difficulties
Primary eduction					
Average	64.2	9.9	17.5	4.9	3.6
Majority	74.3	11.4	0.0	4.5	8.0
Ethnic minorities	61.1	9.4	22.3	5.0	2.2
Lower Secondary Education					
Average	74.3	10.6	5.5	7.3	2.4
Majority	79.0	11.0	0.0	6.1	3.2
Ethnic minorities	72.8	10.4	7.0	7.6	2.1
Upper Secondary Education					
Average	79.0	10.2	0.6	6.8	3.4
Majority	80.5	11.5	0.0	6.7	1.4
Ethnic minorities	78.1	9.2	1.0	6.9	4.7

Source: authors' calculations from the BLS

Given these difficulties in attending schools, promoting educational enrolment in the extremely difficult communes was one the target of the Programme 135-II as well as many other policies and programmes to support improvement of living standards for the ethnic minorities. Using the data on the sub-sample of the P135-II in the BLS, we found 91 percent of primary school pupils were exempted from paying fees and contribution compared to the average of 75 percent calculated from the VHLSS 2006. For higher levels, the proportions of pupils that were exempted from lower and upper secondary schools were 81 and 69 percent, respectively, while the corresponding figures calculated from the VHLSS 2006 for these levels were 21 and 18 percent (see Pham *et al.* 2010 for more

details). These differences suggest the importance of the Programme 135-II and other support initiative to promote educational attainment in the extremely difficult communes. This also implies that continuing this support will be essential to achieve the target of promoting schooling in the extremely difficult communes of the country.

2.2 Access to healthcare services

Although Vietnam has achieved great success in poverty, poverty rate remains very high for ethnic minorities. One of important reasons for poverty is health shocks. In all the recent PPA studies, illness is always described by the poor as one of the main reasons for their severe difficulties (World Bank, 2004). Households affected by health shocks suffer from burden of medical expenses. According to the VHLSS 2006, around 10 percent of households spend more than 16 percent of their consumption in healthcare services. High out-of-pocket payments on health care are also found in several studies such as World Bank (2001), Wagstaff and van Doorslaer (2003).

To improve medical care and to protect people from the catastrophic health spending, the government of Vietnam aim to achieve full coverage of health insurance by 2015. During the past decade, Vietnam has been very successful in increasing the coverage of health insurance, especially for ethnic minorities. According to World Bank (2007), the coverage of free health insurance for ethnic minorities increased from 8 percent in 1998 to 78 percent in 2006. There are around 84 percent of people having health insurance in the extremely difficult communes (Table 2.5), while this ratio is around 54 percent for the whole population.[15] It is interesting that in these extremely difficult communes, ethnic minorities are more likely to have health insurance or free health certificate than majority. The proportion of people without any health insurance and certificate is 32 percent and 10 percent for the majority and the ethnic minority, respectively. The coverage rate of health insurance is higher for the poor than for the non-poor. This reflects the support of the Government and donors in providing access to health insurance.

Table 2.5 Coverage of health insurance (%)

	With health insurance	With fee health certificate	No health insurance
Average	66.1	17.9	16.1
By ethnic groups			
Majority	54.0	14.1	32.0
Ethnic minorities	71.0	19.5	9.6
Tay	83.7	9.4	6.9
Thai	85.7	8.3	6.0
Muong	63.5	14.3	22.1
Nung	76.9	15.5	7.6

[15] The figure for the whole country is estimated from the 2006 VHLSS.

Mong	67.2	28.7	4.1
Dao	71.1	20.6	8.4
Others in Northern Uplands	90.2	3.0	6.8
Bana	98.9	0.0	1.1
H're	96.3	2.3	1.3
Co Tu	5.4	89.6	5.0
Others in Central Highlands	73.6	24.2	2.1
Khmer	31.0	39.2	29.8
Others	57.9	39.7	2.4
Regions			
Red River Delta	53.0	0.8	46.1
North East	72.2	18.6	9.2
North West	87.4	6.9	5.7
North Central Coast	66.8	21.8	11.4
South Central Coast	69.0	28.4	2.5
Central Highlands	87.1	3.0	9.9
South East	79.6	7.9	12.5
Mekong River Delta	23.0	32.3	44.8
Daily language			
No or little Viet	67.9	23.5	8.6
Both Viet and ethnic	78.2	11.2	10.5
No or little ethnic	57.2	12.6	30.2
Poor vs. non-poor			
Poor	69.2	20.5	10.4
Non-Poor	63.4	15.6	21.1

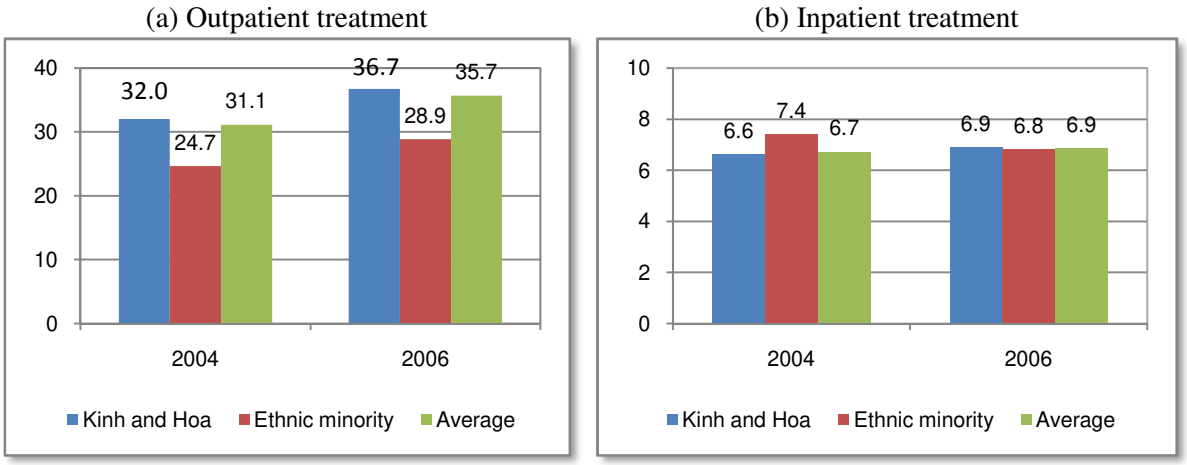
Source: authors' calculations from the BLS

Having health insurance however does not necessarily mean better access to health care services. The health care clinics in the poor areas are often poorly equipped. it is unfortunate that no questions on the conditions of healthcare facilities were asked but it is likely that hamlet-level or communal health centres are generally poorly equipped. These centres are therefore best used for normal diseases or for emergency treatment before transferring to hospitals at higher levels. In fact, the average distance to hospitals was found to be 39 kilometres, which would take at least three hours by public transport (where passenger transport services were available) or about one hour if motorbikes were used given the transportation conditions in these communes. Figure 2.1 shows that the percentage of people using outpatient health care service is lower for the ethnic minorities than for the majority. The average annual health care contact is also much lower for the ethnic minorities. However, the use of health care service tends to increase over time. The majority and ethnic minorities have very similar use of inpatient health care treatment (Figure 2.1). The percentage of people using inpatient health care is very stable during the period 2004-2006.

Compared to the rural areas, the proportion of people using healthcare service is rather high in the extremely difficult communes. Figure 2.2 shows that the percentage of people using health care ranges from 25 percent to 56 percent for different ethnic groups. The

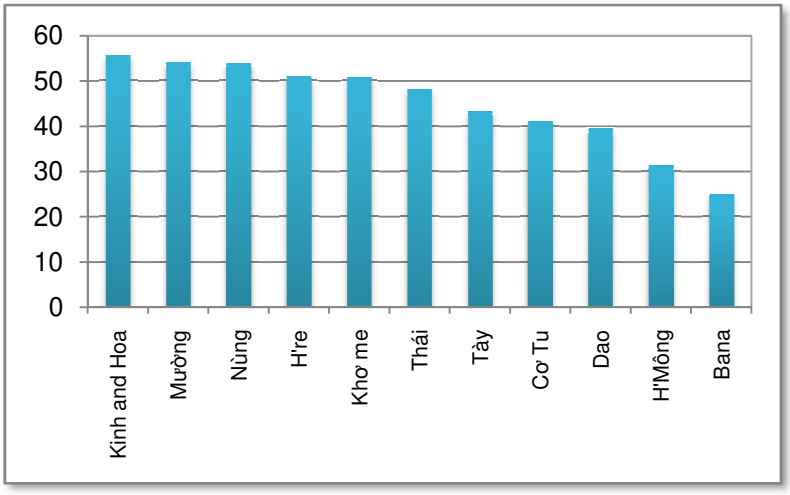
majority are still people having the highest rate of using health care service, while the Mong in the North West and the Bana in the Central Highlands experienced the lowest using rate. It is notable that 53% of the ill or injured individuals were treated at health centres of hamlets or communes they were living in. The average distance from the households to the health centres of 3.8 kilometres lends an explanation for this wide use of the hamlet-level or communal health centres. In addition, the usage of the 'other' types of healthcare facilities was common for the households in the extremely difficult communes. Indeed, 28 percent of the ill or injured individuals were found to have medical treatment by other types of healthcare services. The BLS did not specify further questions on what could be the other types but some alternatives available in these extremely difficult communes include self-treatment at home, having treatment by private medical practitioners, and also using worship. It is unfortunate that we do not have further information to investigate how widely worship is used for medical treatment in the extremely difficult communes.

Figure 2.1: Healthcare utilization: outpatient vs. inpatient treatment (%)



Source: drawn from the data calculated from the VHLSS 2004, 2006

Figure 2.2 The use of health care service in the extremely difficult communes (%)



Source: drawn from the data calculated from the BLS

2.3 Access to basic infrastructures

The extremely difficult communes covered in the BLS are mainly located in mountainous and remote areas. Although there has been improvement in infrastructure in these communes, the current infrastructure remain less developed in these areas. Table 2.6 examines the access to car road in the extremely difficult communes. More than 90 percent of communes have road to their centres. The road coverage in these communes was as high as the level observed using the VHLSS 2006. However, the road coverage diminishes considerably when moving down to the village level as only 68 percent villages interviewed had car road passing by. For communes where the main people group is the Mong, more than a half of the total villages do not have car roads. Where road to the villages were not available, it took the P135-II households an average of 7.8 km to the nearest road. In addition, where roads were available, they were usable during an average of 9.9 months. Using the data on types of road according to materials used, it is found that a half of all road in the extremely difficult communes are dust roads. This could be taken to suggest relatively low quality of roads to villages of the extremely difficult communes. This could be translated into difficulties in access to education, healthcare, and, as discussed in Chapter 3, major obstacle for market linkages.

Table 2.6 Access to roads leading to communes and villages (%, km, and number)

	% commune having road	% village having road	Distance from village to nearest road (km)	Number of months that village road can be used
Average	94.1	68.0	7.8	9.9
Ethnic groups				
Majority	90.3	76.4	3.6	11.1
Ethnic minorities	94.9	66.2	8.4	9.7
Tay	94.4	68.9	7.0	10.1
Thai	91.0	62.7	10.2	8.5
Muong	98.7	93.0	9.4	10.5
Nung	100.0	61.8	4.4	9.3
Mong	99.4	46.2	9.3	10.1
Dao	97.0	61.4	7.0	8.9
Others	90.8	73.3	9.0	9.8
Regions				
Red River Delta & Southeast	100.0	86.6	1.5	12.0
North East	96.5	61.4	7.0	10.2
North West	97.3	68.6	10.4	8.2
North Central Coast	87.0	79.4	9.8	9.5
South Central Coast	80.0	68.0	12.1	10.6
Central Highlands	100.0	89.3	6.3	9.5
Mekong River Delta	88.1	44.5	3.2	12.0
Geography				
Delta, costal	88.1	44.5	3.2	12.0
Low mountain	98.0	87.7	2.6	10.7
High mountain	93.8	65.4	8.7	9.6

Source: authors' calculations from the BLS

Notes: these figures are obtained at the commune level; the classification of these communes by ethnicity is based on which ethnic minority groups are dominant in the population of these communes.

Table 2.7 presents the access to schools by ethnicity and regions. Around 79 percent and 68 percent of the extremely difficult communes have primary schools and lower secondary schools, respectively. However, the percentage of communes having upper secondary school is very low, only at around three percent. As these are the extremely difficult communes of the country, these figures are lower than the national average level reported on the basis of the VHLSS 2006. For instant, more than 95 percent of rural communes having primary schools, while less than 80 percent of the extremely difficult communes having this school facility. Using the data on the sub-sample of the Programme 135-II communes, we found that only 78 percent of the P135-II communes had primary schools. This represent a big gap between the current rate of 78 percent and the target rate of 100 percent. It suggests that substantial investment from the P135-II will be needed to ensure the target of all communes having schools/classes by 2010. This clearly represents a challenge for the P135-II.

Table 2.7 Access to schools (%)

	% commune having primary school	% commune having lower secondary school	% commune having upper secondary school
Average	79.0	68.1	3.0
Ethnic groups			
Majority	91.6	81.9	5.9
Ethnic minorities	76.2	65.0	2.3
Tay	85.5	73.5	3.2
Thai	89.6	89.6	9.3
Muong	89.7	85.2	7.2
Nung	74.2	40.5	0.0
Mong	64.5	60.0	0.7
Dao	67.4	58.4	0.0
Others	72.9	54.2	0.0
Regions			
Red River Delta & South East	100.0	86.6	13.7
North East	74.1	63.9	2.7
North West	81.5	78.0	4.4
North Central Coast	83.2	72.9	2.7
South Central Coast	74.9	52.6	0.0
Central Highlands	69.2	47.3	0.0
Mekong River Delta	100.0	92.3	0.0
Geography			
Delta, costal	100.0	92.3	7.7
Low mountain	93.4	79.2	0.6
High mountain	74.3	63.9	1.9

Source: authors' calculations from the BLS

Notes: these figures are obtained at the commune level; the classification of these communes by ethnicity is based on which ethnic minority groups are dominant in the population of these communes.

Access healthcare service is widely considered as equally important as access to education. Table 2.8 assesses the availability of healthcare centres in the extremely difficult communes. Almost all the communes have commune health care centres. Where healthcare services were not available at the communes, the households in these communes needed to travel an average of 20 kilometres to the nearest health centres. However, there are only a few communes having district hospitals. There is a long distance from commune to the nearest district hospital. The average distance from communes to the nearest district hospitals is 17 km for the majority and 28 km for the ethnic minority. People who live in delta areas have much shorter distance to hospitals than people in mountainous areas. The BLS does not provide information on the conditions of the healthcare stations found in the extremely difficult communes. But it is commonly understood that these stations are only equipped with the most essential facilities and basic medicines for popular and simple diseases. Hospitals at the district level or provincial level are expected to provide more complicated medical treatment.

Table 2.8 Access to health care centres and hospitals (%, km, and minute)

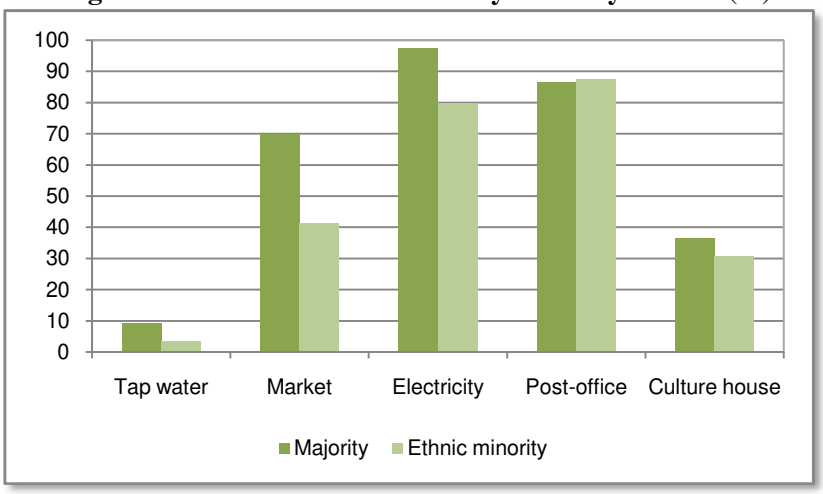
	% commune having health care centre	% commune having district hospital	Distance from commune to district hospital (km)	Travelling time from commune to district hospital (minute)
Average	96.9	1.1	25.8	93.0
Ethnic groups				
Majority	97.6	0.0	17.2	41.2
Ethnic minorities	96.7	1.3	27.7	104.2
Tay	100.0	0.0	21.8	71.9
Thai	99.0	0.0	36.0	120.9
Muong	98.7	1.3	26.3	70.3
Nung	100.0	7.9	19.3	124.0
Mong	91.0	0.0	30.2	137.0
Dao	100.0	0.0	33.5	139.4
Others	94.7	2.9	25.1	85.4
Regions				
Red River Delta & South East	93.3	2.0	22.1	48.0
North East	97.7	0.8	23.5	100.6
North West	97.8	0.0	39.9	127.2
North Central Coast	98.5	0.0	23.8	75.1
South Central Coast	90.9	4.0	20.0	97.7
Central Highlands	100.0	4.1	26.8	68.2
Mekong River Delta	92.3	0.0	9.8	24.7
Geography				
Delta, costal	92.3	0.0	9.8	24.7
Low mountain	95.4	0.6	18.4	47.8
High mountain	97.5	1.3	28.5	107.5

Source: authors' calculations from the BLS

Notes: these figures are obtained at the commune level; the classification by ethnicity is based on which ethnic minority groups are dominant in the population of these communes.

In addition to access to education and healthcare facilities, other basic infrastructures are also important for improving living standards. Figure 2.3 provides a general picture by comparing the access to other infrastructures between the majority group and the ethnic minority using data from the VHLSSs. It seems that there are considerable differences in access to tap water, market, and electricity across these two ethnic groups, while the access to post office and culture houses is essentially the same between the two. Access to tap water and market is much better higher for the majority than for ethnic minorities. The majority group also have higher percentage of households using electricity than ethnic minorities.

Figure 2.3 Other infrastructures by ethnicity in 2006 (%)



Source: drawn from the data calculated from the VHLSS 2006

Given this general picture, Table 2. 9 below provides further insights on the access to some basic infrastructure facilities in the extremely difficult communes of the country. It is noted that the access to electricity in these communes was as high as the national average level calculated from the VHLSS 2006. On average, nearly 95 percent of these communes had access to national electricity grid. Having post office was found important for household welfare in previous studies on Vietnam (see Baulch *et al.* 2008 for instance). In this regard, it is important to inform that 86 percent of the extremely difficult communes had post offices. This coverage rate is considerably higher than the national average level obtained from the VHLSS 2006 (which was about 40 percent). The BLS also provides information on access to irrigation system, which is important for agricultural production. On average, 62 percent of the extremely difficult communes reported having irrigation systems. Surprisingly, the coastal or delta communes are not different from other midland or mountainous counterparts in terms of access to irrigation facilities. Using the data on the sub-sample of the Programme 135-II, it should be stressed that the coverage of 61 percent

was observed for the Programme's targeted communes. This represents a big gap between the current rate of having irrigation systems and the target of 80 percent of the communes having small irrigation systems by 2010.

Table 2.9 Access to basic infrastructure facilities (%)

	% having electricity grid	% having post office	% having cultural house	% having radio station	% having irrigation	% having market
Average	96.6	86.4	22.2	39.4	61.8	30.6
Regions						
Red River Delta and Southeast	100.0	79.8	37.5	77.9	49.0	22.1
North East	97.3	87.4	17.4	32.5	66.9	38.4
North West	94.3	89.8	33.2	22.0	47.2	20.0
North Central Coast	93.3	79.0	25.6	37.8	64.1	29.8
South Central Coast	95.2	80.0	24.0	51.4	78.9	17.1
Central Highlands	98.8	90.5	14.8	49.7	58.5	9.5
Mekong River Delta	100.0	94.0	7.7	88.1	59.0	66.7
Main ethnic groups						
Majority	100.0	86.9	25.5	62.7	63.0	45.7
Tày	97.5	95.1	20.5	31.8	64.3	31.5
Thái	93.6	84.1	48.8	21.4	72.6	21.9
Mường	94.0	85.4	19.8	50.9	48.4	51.0
Nùng	100.0	84.3	0.0	14.7	48.4	15.7
H'Mông	96.0	79.7	8.7	16.8	51.6	34.8
Dao	96.7	91.0	25.8	30.5	67.4	29.6
Còn lại	94.5	84.9	21.2	52.5	65.8	15.4
Geography						
Delta, costal	100.0	94.0	7.7	88.1	59.0	66.7
Low mountain	100.0	92.9	27.7	53.1	66.9	50.0
High mountain	95.4	84.6	22.0	33.0	61.0	23.9

Source: authors' calculations from the BLS

Notes: these figures are obtained at the commune level; the classification by ethnicity is based on which ethnic minority groups are dominant in the population of these communes.

In effect, although Vietnam have provided significant support programs for ethnic minority development, the access to public services of ethnic minorities remains limited. Education degree among adults as well as school enrolment among children are lower for ethnic minorities compared to the rural average levels. There is also a large difference in education degree among ethnic minority groups. The Mong, Bana and H're are ethnic minority groups who have the lowest education as well as the lowest enrolment rates.

The use of health care service is also lower for ethnic minorities than for the majority. However, the use of health care services for ethnic minorities tends to increase overtime. Perhaps, the most successful in health care policy for ethnic minorities is the increase in the health insurance provided for ethnic minorities. The percentage of the insured people among ethnic minorities increases significantly and is even higher than the percentage of the insured among the majority group. The extremely difficult communes are featured by

poor infrastructure conditions. Both the majority and the ethnic minority residing in these areas. Yet, the majority group tends to live in communes which have better infrastructures such as road, schools, healthcare centres than ethnic minorities.

Chapter 3. Livelihoods of the Poor Ethnic Minorities

How household diversify their resources for alternative livelihood activities is the key determinant of their well-being. In attempts to answer the research question three, This chapter analyzes the livelihood of the ethnic minorities in the extremely difficult communes of the country. We first provide a narrative of labour market participation by the poor ethnic minorities. Given the data availability to this study, the chapter then focuses on income sources generated from different livelihood activities pursued by the poor ethnic minorities before some stylized facts on each of the major activities are highlighted.

3.1 Labour market participation and labour allocation

The labour market functioning and labour market participation are key issues for the poverty reduction policies. At the micro level, the poor derive the main part of their income from work. At the macro level, labour markets are the major channel through which growth and global macroeconomic conditions affect households' living conditions and poverty. The BLS is not designed mainly to capture expenditure and income, and the labour market indicators are limited in scope. As a result, it is not possible to measure unemployment or underemployment accurately neither to distinguish between formal sector employment and informal sector employment. Other key information on employment such as social security or information on those working in household businesses is also unavailable. In spite of these shortcomings, we have explored the information available to report some core standard labour market indicators as in Table 3.1 and some stylized facts characterizing labour force participation of the ethnic minorities in the extremely difficult communes of the country.

It is not surprising that employment rate in the poorest commune was as high as the common standards in rural Vietnam. Nearly 90 percent of people aged from 16 to the retirement age having jobs. This might reflect the fact that people at the working age have to work as their income levels are so low to afford being out of the labour force. The fact that employment rates in the poorest regions such as North East, North West, Central Highlands are higher than in the other two deltas lend a support to that notion. In addition, for some ethnic groups such as Mong, Dao, Bana, H're, the employment rates are higher than 95 percent. As shown in Chapter 1, these are also the poorest ethnic groups in the country. As a consequence, the employment rate for the groups who speak the Kinh language or little ethnic languages is lower than the other groups who speak both the Kinh and ethnic language or only ethnic languages by an order of twelve percentage points.

Table 3.1 Participation in the labour market in the extremely difficult communes (%)

	Working in the past 12 months	Wage employed	Farming activities	Off-farm activities	Under-employed (less 30h/ week)	Having one job	Having two jobs
Average	89.6	28.2	77.7	11.7	52.1	62.6	26.0
Ethnicity							
Majority	81.4	33.7	59.5	15.5	60.1	54.7	26.1
Ethnic minority	93.5	25.6	86.2	9.9	48.3	66.3	26.0
Tay	91.9	23.7	88.9	13.2	44.4	60.3	29.4
Thai	93.6	17.5	91.3	8.2	60.7	71.1	21.5
Muong	91.1	33.3	85.9	8.6	41.6	55.5	34.5
Nung	93.5	22.4	92.3	12.2	37.6	62.5	28.4
Mong	96.8	10.2	96.5	11.3	32.1	76.4	19.7
Dao	95.4	15.0	94.0	15.9	37.2	67.7	26.1
Others in NU	93.6	12.8	92.1	7.9	47.3	75.0	17.9
Bana	97.2	30.7	97.2	1.9	45.2	65.5	30.6
H're	98.4	34.3	97.5	1.8	90.8	63.3	35.1
Co Tu	86.9	14.6	85.8	2.2	66.3	71.9	14.3
Others in CH	91.4	27.2	89.8	2.5	55.4	63.8	27.2
Khmer	91.0	66.9	41.7	11.7	56.9	62.5	27.7
Others	97.0	28.6	95.5	1.3	61.1	68.5	28.4
Regions							
Red River Delta	83.0	29.0	72.8	8.1	45.9	56.6	25.9
North East	93.2	21.0	90.5	14.9	36.8	61.7	29.7
North West	93.8	15.4	90.6	8.6	50.9	74.0	19.1
North Central Coast	89.7	27.1	84.2	7.6	62.5	61.3	27.5
South Central Coast	93.0	26.5	89.3	6.9	78.6	63.7	29.1
Central Highlands	91.9	35.3	88.3	6.6	47.1	54.2	37.1
Southeast	86.5	55.1	49.7	10.8	63.1	57.4	28.9
Mekong River Delta	80.2	42.9	44.5	14.8	63.9	58.7	21.1
Gender of household head							
Male	90.0	27.0	79.8	11.6	51.8	62.7	26.2
Female	86.2	38.9	58.8	12.8	54.6	62.1	24.0
Daily language							
No or little Viet	94.2	24.3	85.7	9.1	45.7	70.0	23.3
Both Viet and ethnic	92.4	28.8	88.0	10.2	57.0	59.7	30.8
No or little ethnic	82.6	32.7	63.0	15.7	57.8	54.7	27.2
Poor vs. non-poor							
Poor	91.6	22.8	85.8	6.3	52.2	68.8	22.4
Non-poor	88.1	32.2	71.7	15.6	52.0	58.1	28.7

Source: authors' calculations from the BLS

Though the employment rates are high across all the dimensions of the analysis, the most of working people are however self-employed in agriculture (i.e. 78 percent). It is not

surprised that the majority is less dependent on agriculture (less than 60% working in the sector). Wage employment, which are taken place mainly in terms of working for the authorities, is rather limited at around 28 percent. The incidence of wage employment in the extremely difficult communes are thus considerably lower than the rural average level of 39% (using the VHLSS 2006). The Bana, H're, Muong are as active as the majority but none is however comparable to the Khmer group. With 66 percent of working people are wage-employed, the Khmers are found active in the paid jobs. This might reflect the fact that they were hired by other households to work on their farms on daily or weekly basis. On average, the incidence of wage employment is also higher in the South and in the North. This is in comport with the previous studies on the labour market of Vietnam (see Pham and Reilly, 2009 for instance).

It is noted that nonfarm diversification is modest in the extremely difficult communes. Less than 12 percent of working people participated in off-farm activities. Using the data from VHLSS 2006, the incidence of nonfarm diversification in 2006 was nearly 58 percent. Participation into nonfarm activities is almost ignorable for the ethnic minorities residing in the Central Highlands. The ethnic minority groups those are most assimilated to the Kinh such as Tay, Thai, Muong, Nung are as diversified as the average of the ethnic minority. Surprisingly, the H'mong people, who are mainly reside in high mountains are diversified into the nonfarm sector as much as the average level. In fact, nonfarm diversification could taken place for 'good' or 'bad' reasons. While the latter refers to the pressure on the poor to diversify as a coping strategy, the former implies the attraction of the RNFS to the better-off. In this regard, the welfare effect of nonfarm diversification depends on whether rural households are in a 'pull' or 'push' scenario – using Hart's (1994) terminology. Some rural households may be 'pushed' into nonfarm activities in their struggle to survive, while others may be 'pulled' into them by their desire to accumulate. As the 'pushed' scenario is usually referred to poor households and the 'pulled' is more likely associated with the non-poor, the welfare effect of nonfarm diversification on rural poverty in general is not unequivocal. In the context of the extremely difficult communes in Vietnam, it is likely that nonfarm income-generating opportunities available for the ethnic minorities represent the 'push' scenario, and thus contribution of nonfarm activities to the living standards might be minimum. The final row of Table 3.1 show identical level of nonfarm diversification between the poor and the non-poor in the extremely difficult communes of the country. This also reflects the finding reported by Pham *et al.* (2008) who found that nonfarm diversification is generally a way out of poverty for rural households but the poor are less able to benefit from nonfarm opportunities.

We define underemployment by the common threshold of working less than 30 hours per week. Using that definition, it was found that more than a half of the working people in the extremely difficult communes were under-employed. Underemployment is particularly worrying in the (North and South) Central Coast, Mekong River Delta, and Southeast. For instance, nearly 80 percent of households in the South Central Coast revealed that they were underemployed. This incidence of underemployment is far higher than the average level in the rural areas. According to MOLISA, the underemployment rate of the rural labour force was about 29 percent in 2006 (GSO, 2008). This might be taken to suggest an important aspect of employment in the extremely difficult communes, where almost everyone in the working age work (either for themselves on their farms or for the other) but their employment activities are not sufficient and they are thus seriously under-employed.

To some extent, the analysis from Table 3.1 suggests a vicious cycle in the extremely difficult communes: most of people have to take some work activities but as these are not sufficient to generate income, leaving them in poor conditions but having little time to invest in human capita and better income diversification opportunities. The subsection below provides insights on different sources of household income.

3.2 Income sources of the poor ethnic minorities

Overall picture of income-generating activities and their contribution to total household income is given in Table 3.2. In absolute terms, the average household member in the poorest commune earned 4.6 million VND/per year in 2007.[16] But the average per capita income varies greatly amongst different ethnic groups. The majority earned the highest of 7.4 million VND/per head/per year. This income level is at least two times higher than those earned by other ethnic groups (with the exception of the Khmer's). Particularly, the majority earned on average 3.6 times higher than the H'mong, around three times higher than the Bana, H're, and other ethnic groups in the Central Highlands. The Khmer, Muong, Tay, Nung, Thai respectively ranked after the majority in their average earning per head. This suggests a strong correlation, through not causal, between assimilation to the Kinh majority and average income level. Figure 3.1 provides a better illustration for the income gap between the majority group and the ethnic minority. The vertical line represents the average income level in the extremely difficult communes. Most of ethnic minority households are located on the right of the vertical line, representing lower income levels; while the majority are located primarily on the opposite of the vertical line. Interestingly, it shows that at any income levels on the right of the vertical line, the majority earn

[16] As noted in the Introduction, all income indicators in this study is given in the real terms of September 2009, when the BLS was started the data collection process. To facilitate the comparison of the analysis across sections and chapters, unless explained otherwise, per capita income is used.

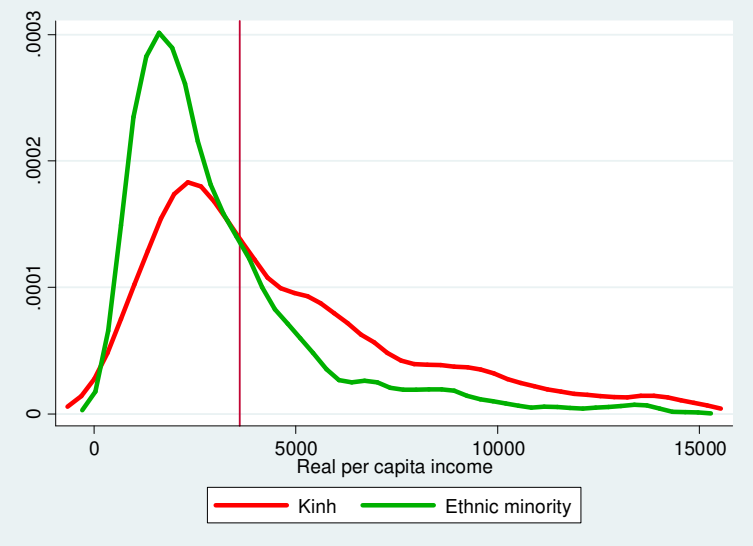
considerably higher than the ethnic minority. This kernel distribution of per capita income looks essentially the same as the kernel density of per capita expenditure between the two ethnic groups as reported in World Bank (2009).

Table 3.2 Real Per Capita Income by Sources (%)

	Structure of household income (per head)								Total
	crops	Live stock	Aqua	Forestry	Wage	Off-farm	transfer	Other	
Average	33.7	7.4	2.6	4.4	22.8	18.4	8.4	2.4	4,636
By regions									
Red River Delta	18.0	15.1	1.4	1.8	30.0	8.1	23.9	1.8	4,233
North East	38.7	14.6	1.0	8.7	18.6	7.8	9.1	1.5	3,242
North West	50.5	9.6	1.4	6.9	18.3	6.2	5.4	1.9	3,550
North Central Coast	20.4	12.6	1.5	8.7	26.0	10.4	15.3	5.1	3,727
South Central Coast	27.9	9.3	0.8	6.4	27.4	8.8	17.6	1.8	3,380
Central Highlands	53.7	3.4	0.4	1.6	26.6	7.5	4.8	2.0	4,702
Southeast	24.5	1.8	0.1	3.2	46.6	9.7	12.4	1.6	5,329
Mekong River Delta	28.1	2.0	5.4	0.5	19.9	36.1	5.3	2.7	8,357
By ethnic groups									
Majority	27.5	5.0	4.1	1.8	22.3	28.3	9.3	1.8	7,404
Ethnic minority	40.5	10.0	1.0	7.2	23.3	7.4	7.5	3.0	3,285
Tay	34.8	13.3	1.2	8.9	19.1	9.7	11.6	1.5	3,698
Thai	45.5	11.4	2.7	7.8	17.9	3.9	6.0	4.8	3,188
Muong	34.2	12.4	0.7	5.3	27.7	9.1	8.5	2.0	3,904
Nung	44.8	14.6	0.8	8.6	19.6	5.0	6.0	0.6	3,294
Mong	57.8	13.9	0.3	12.2	6.6	3.4	4.0	1.7	2,034
Dao	52.1	14.2	0.8	12.3	10.8	3.3	4.6	1.8	2,890
Others in NU	58.7	8.1	1.0	9.9	13.1	1.7	3.7	3.7	2,873
Bana	73.7	3.2	0.1	3.3	14.2	1.0	3.9	0.7	2,345
H're	35.8	11.7	0.4	5.4	24.2	1.9	19.9	0.7	2,547
Co Tu	26.6	4.7	1.3	15.3	23.5	0.6	21.1	6.9	2,969
Others in CH	44.9	2.1	0.6	10.6	20.5	1.2	16.1	4.0	2,671
Khmer	27.4	2.8	0.3	0.3	45.4	15.5	3.3	4.9	4,832
Others	38.8	5.6	1.1	8.9	25.0	1.1	13.6	5.8	2,568
Gender of household heads									
Male	36.0	7.6	3.1	4.7	20.9	18.6	6.8	2.3	4,544
Female	21.1	6.6	0.1	2.9	32.6	17.0	16.8	3.0	5,198
Daily language									
No or little Viet	43.9	9.3	0.9	7.6	22.9	5.9	6.6	3.0	3,001
Both Viet and ethnic	36.7	10.5	1.2	7.5	21.6	10.0	8.8	3.6	3,731
No or little ethnic	31.3	13.9	0.9	4.7	29.1	10.2	7.9	2.0	4,284
Poverty status									
Poor	49.6	12.5	-6.2	13.1	21.3	-0.5	7.4	2.8	1,300
Non-poor	31.5	6.7	3.8	3.2	23.0	20.9	8.5	2.3	7,121

Source: authors' calculations from the BLS

Figure 3.1 Income of the Kinh and the Ethnic Minority



Source: drawn from the income data calculated from the BLS

There is also a spatial pattern in income distribution. Households in the poor communes of the Mekong River Delta earned highest compared with those residing in the other reasons. Compared to the other regions in the Northern part and the Central Highlands, the average income level in the Mekong River Delta is higher by between two to 2.6 times. This might reflect the concentration of rice production in this delta. As suggested by Benjamin and Brandt (2004), removing barriers to trade and production in agriculture directly benefited the majority of Vietnam's population whose livelihoods were closely dependent on small-scale subsistence agriculture. In addition, the average income level also varies by the language ability. As expected, the households those speak the Viet language and little or no ethnic languages earned higher than those in the other two language groups. The most striking income gap is found between the poor and the non-poor. Figures in the last row of Table 3.2 reveal that the non-poor earned on average 5.5 times higher than the poor. It should be noted that this gap is found between the poor and the non-poor living in the poorest areas of the country, where one could expect a low level of income inequality.

We now turn the attention to the eight major income sources, including those from crops, livestock, aquaculture, forestry, wage, off-farm activities, transfer, and other sources. The structure of income reported in Table 3.2 mirrors the structure of income-generating activities covered earlier in this subsection. On average, crop income, accounting for one third of the total income, is the most important income source for households in the extremely difficult communes of the country. Wage and off-farm income ranked second and third with the corresponding shares of 23 and 18 percent, respectively. These three sources contribute up to two third of the total income per head. The remaining is attributed

to livestock, forestry, aquaculture, transfer, and other income sources. It is important to emphasize that while the land endowment in the extremely difficult communes is mainly forest land but forestry represents a modest, and almost ignorable source of income. On average, forestry accounts for less than five percent of the total income. There might be two reasons underlying this modest contribution of forestry income source. At many locations, forest are classified as protected forest, making it illegal for households to exploit forestry resources. In addition, where forests were almost cut down completely, the (former) forestry land is used for some low yielding staple crops and thus is not attributed to forestry income source. Being the extremely difficult communes of the country, households in the areas received considerable transfers from several policies and programmes. These transfers contribute to the average income per head as much as livestock, and nearly equal to income from forestry, aquaculture, and other sources together.

Figure 3.2 Income Structure of the majority vs ethnic minority (%)

(a) (b)

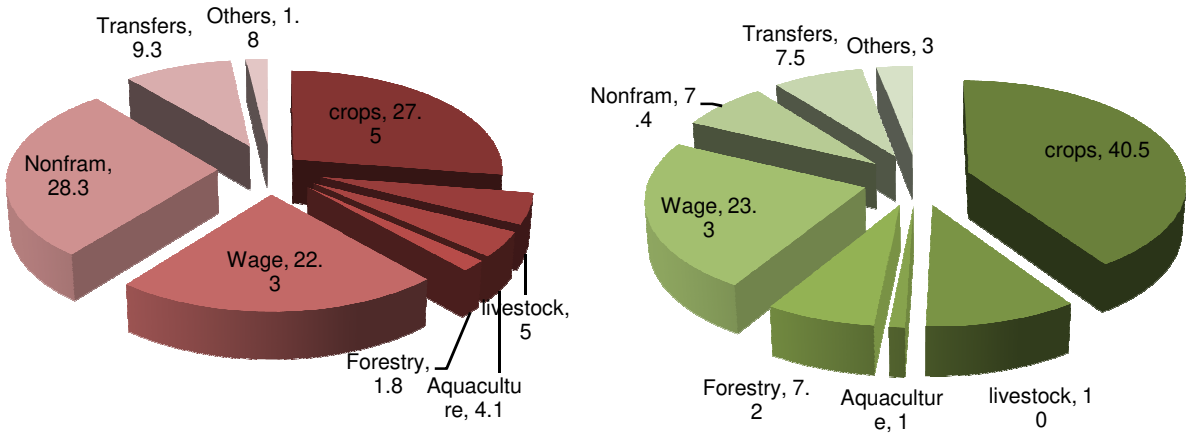
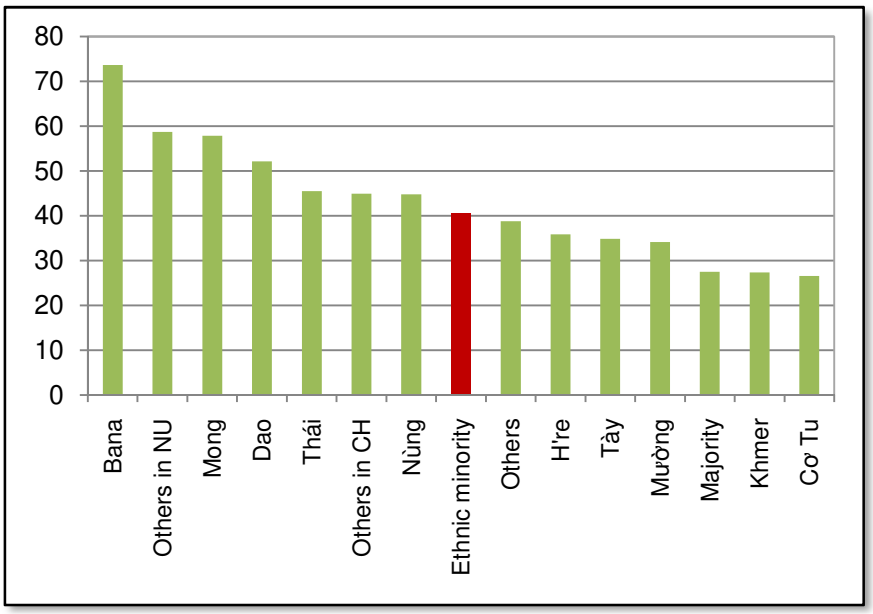


Figure 3.2 above is drawn from the income structure of the two groups with panel (a) for the majority, panel (b) for ethnic minority. The pattern of income diversification of the ethnic minority is different from that of the majority at several aspects. *First*, the ethnic minority relies heavily on crops as their major source of income (i.e. 40 percent), while the corresponding figure of the majority is around 27 percent. *Second*, nonfarm activities represent the second most important income source for the majority. As calculated from the BLS, the nonfarm sector contributed up to 28 percent of the average per capita income of this group. In contrast, the ethnic minority earned only seven percent of their income from off-farm diversification. This is also consistent with the evidence found nationwide on the incidence of nonfarm diversification in rural Vietnam (Pham *et al.* 2009). Though forestry income is generally modest in the extremely difficult communes, this share of

income from nonfarm participation is equal to that of forestry in the average income of the ethnic minority. For the majority in this areas, their forestry income is ignorable as it accounted for less than two percent of the real per capita income.

There is also a considerable difference amongst the ethnic groups in their income portfolios. With the exception of the Khmer, who earned more than a half of their income from wage employment, crop income remains the most important income source for all other ethnic groups. Figure 3.3 ranks the contribution of crop income to the average income per capita according to ethnicity. The bar highlighted in brown represents the crop income share of the ethnic minority as a whole (which is equal to around 40 percent). All that ethnic groups that are located on the left of this bar are more dependent on crop income. They consist of the Bana, Mong, Dao, Thai, Nung, other ethnic minorities in the Central Highlands and in the Northern Uplands of the country. Of these groups, the Bana in the Central Highlands exhibits heaviest dependence on crop income source (i.e. nearly 74 percent). The ethnic groups that are located on the right of the highlighted bar earned less than the average of the ethnic minority from crop activities. These groups are the H're and Co Tu in the Central Highlands, Muong, Tay, and the other groups. It is noted that the Khmer and Co Tu are dependent on crop income as much as the majority. In the case of Khmer, this might be linked to their concentration to the Mekong River Delta as the major rice bowl of Vietnam.

Figure 3.3 Crops as the Most Important Income Source (%)



Source: drawn from the income data calculated from the BLS

Female-headed households account for 11 percent of the total BLS sample. The gender dimension is also reflected in the structure of household income. As female-headed households possess less annual crop land than male-headed households, their income from

agriculture equal to 46 percent that of male headed households. Table 3.2 suggests that female-headed households in the extremely difficult communes are less dependent on crop income than the male-headed counterpart by an order of 15 percentage points. To compensate for that, female-headed households are more reliant on wage employment activities. Given the data available to this study, it is difficult to provide a satisfactory reason for this difference as detailed information on these wage employment activities are not available or not reliable given the small number of observation. However, one could postulate that as female-headed households are poorly endowed in landholding (see Chapter 1), they are more likely to seek for work in terms of working for other households.

Finally, the difference in income-generating patterns of the poor and the non-poor is noteworthy. The final rows of Table 3.2 report negative numbers at the cells of aquaculture and nonfarm activities of the poor. This is because the poor households spent on these activities more than what they earned from these. More importantly, while the non-poor earned nearly one fifth of their average income from the nonfarm sector, the poor compensated their nonfarm participation by other income sources as they lost from such activities. Given that, the poor in the extremely difficult communes have little choice but rely on agriculture as their main income source. For these households, crop income contribute a half of the total income per head, while the non-poor earned less than one third of their income from crop cultivation. Observed from the above, the non-poor is endowed two times larger than the poor in annual crop lands, but their income from that endowment is higher than that of the poor by more than three times. This suggests that the non-poor used their crop lands more effectively compared to the poor.

3.3 Main livelihoods of the poor ethnic minorities

This last section of the chapter focuses on the main livelihoods of the households in the extremely difficult communes of Vietnam. Using the data available from the BLS, we will examine some stylized facts on each of these main livelihood activities.

Livelihoods in agriculture

Table 3.3 gives an overall picture of land allocation amongst different crops, which reported above as the most important source of household income in the extremely difficult communes. On average, households in this areas allocate 54 percent of annual crop land for rice, 29 percent for other staples, the remaining is for other crops. There is however a great variety in annual crop land use pattern between the ethnic groups and regions. The majority, Khmer, and H're spare most of their annual croplands for rice. Especially, the Khmer exhibits a heavy concentration on rice with nearly 99 percent cropland used for rice. The Khmer households possess substantially more rice land compared to the majority and any other ethnic groups. In absolute terms, the Khmers are endowed 2.7 times more

than the average of the extremely difficult communes, and 1.8 times higher than the majority. This lends an explanation for the share of 99 percent of land in the Mekong River Delta used for paddy rice cultivation.

While households in the poor MRD are most well endowed with paddy rice land; those in Northern Uplands and Central Highlands are better endowed in staple crop land. Consequently, the ethnic groups in these regions are more dependent on staples crops. Particularly, the H'mong, Dao, Thai, Muong, others in the North West, the Bana, and others in the Central Highlands allocated more than a half of their total cropland endowment for staples, which are mainly maize, cassava. Interestingly, we found a considerable difference in cropland use pattern between the poor and the non-poor. While the non-poor allocated 70 percent of their cropland for rice, the poor spared a half of their cropland for other staples. This reflects the high concentration on rice of the majority, who are less likely to be poor than the ethnic minority. It is also in comport with the figures calculated by the language dimension, which show that the households those speak the Viet language and little or no ethnic languages allocated nearly 82 percent of their annual cropland for rice production.

Given the dominance of rice production in the cropland use pattern, it is expected that rice income is an important source of household income. Indeed, Table 3.3 shows that rice contributed up to 52 percent of crop income (which is equal to nearly 16 percent of total income per head) in the extremely difficult communes. Other staples accounted for less than one third, the remaining is shared by annual perennial crops, fruits, and other related products. The structure of crop income mirrors the pattern of cropland by the different ethnic groups. As the Khmer mainly focus on rice production, this livelihood represents 87 percent of their crop income. The ethnic groups in the Northern Uplands and Central Highlands (with the exception of the H're) are more dependent on staple crops as their major or the second most important source of crop income. Annual perennial crops do not represents an important source of crop income in general but turn out to be a major income source for the H're and other ethnic groups in the Central Highlands. This reflects the land endowment in this area, which is particularly favorable for production of annual perennial crops.

However, the differences across the poor and non-poor and gender of household heads noted above do not translate into differences in the structure of crop income. While the non-poor are more concentrated on rice production than the poor, the shares of rice income in the total crop income almost identical between the two groups. This is attributed to the fact that the non-poor, as highlighted earlier, are more diversified than the poor, especially in wage employment and other off-farm income-generating activities (see Table 3.1). Though the share of rice production in the total crop income of the non-poor is not considerably different from the poor, it should be noted that in absolute terms, rice per

capita income of the non-poor is 3.4 times higher than that of the poor households in the extremely difficult communes of the country.

Table 3.3 Cropland Allocation and Structure of Crop Income (%)

	Land allocation (%)				Contribution to crop income (%)				
	Rice	Staples	Perennial crops	Fruits	Rice	Staples	Perennial crops	Fruits	Other by-produc
Average	64.5	33.2	1.5	0.8	51.8	29.1	11.3	5.0	3.0
Regions									
Red River Delta	66.0	31.7	1.7	0.6	47.6	16.8	13.1	11.6	11.0
North East	46.8	49.0	3.3	0.9	48.7	33.4	8.9	5.8	3.4
North West	40.7	58.3	0.9	0.1	45.6	47.1	2.5	2.9	1.9
North Central Coast	71.9	25.3	1.5	1.3	55.0	23.7	10.7	6.2	4.4
South Central Coast	82.0	16.9	1.1	0.0	50.3	11.1	23.0	9.1	6.5
Central Highlands	34.0	58.5	0.8	6.8	28.7	40.5	28.9	2.3	0.3
Southeast	83.1	14.3	2.3	0.3	38.8	13.3	46.4	0.6	1.0
Mekong River Delta	99.4	0.1	0.4	0.1	82.2	6.5	6.3	3.8	1.2
Ethnic groups									
Majority	84.6	13.5	1.0	0.9	49.3	18.2	20.6	8.4	3.7
Ethnic minority	55.3	42.2	1.7	0.7	52.7	33.4	7.6	3.6	2.7
Tay	67.7	28.9	2.3	1.1	62.8	22.5	7.8	5.1	1.9
Thai	54.3	44.4	1.0	0.3	57.8	34.2	2.3	3.0	2.8
Muong	41.3	56.8	1.1	0.7	52.4	30.9	7.6	5.5	3.6
Nung	60.2	37.3	2.1	0.4	44.1	30.0	18.3	3.9	4.0
Mong	40.4	55.5	3.2	0.8	38.5	52.4	4.3	1.8	3.2
Dao	46.0	51.6	1.7	0.6	50.6	35.5	9.3	2.7	2.0
Others in NU	33.0	63.8	0.9	2.3	34.8	53.9	4.0	4.4	3.2
Bana	50.5	49.5	0.0	0.0	38.7	45.1	9.3	3.0	3.9
H're	93.0	6.9	0.1	0.0	49.0	6.1	32.5	2.9	9.5
Co Tu	59.7	38.0	2.3	0.0	57.1	32.9	1.7	8.1	0.2
Others in CH	53.5	43.3	1.2	2.0	43.4	34.0	18.8	1.8	2.0
Khmer	98.7	0.2	1.1	0.0	87.0	7.2	1.1	4.1	0.6
Other ethnic groups	44.9	54.1	0.9	0.0	40.8	42.7	11.3	4.1	1.2
Gender of household head									
Male	64.2	33.5	1.4	0.8	52.4	29.2	10.9	4.7	2.9
Female	68.2	29.4	2.0	0.4	46.4	28.4	13.9	7.3	4.0
Daily language									
No or little Viet	53.0	44.4	1.8	0.8	52.7	36.6	5.7	2.7	2.3
Both Viet and ethnic	63.3	34.9	1.3	0.5	53.2	27.3	11.3	5.0	3.3
No or little ethnic	81.8	16.3	1.0	0.9	49.7	18.9	19.4	8.3	3.8
Poor vs non-poor									
Poor	54.4	42.5	2.1	1.0	53.9	32.4	8.0	2.7	3.2
Non-poor	69.2	28.9	1.2	0.7	50.0	26.5	13.9	6.8	2.8

Source: authors' calculations from the BLS

Livelihood from livestock, forestry and aquaculture

This sub-section attempts to analyze some aspects of the livelihoods in livestock, forestry, and aquaculture, which contribute on average 15 percent of the total income of the households in the extremely difficult communes. Table 3.4 reports income generated from these activities with a focus on the structure of livestock income.[17] It seems that poultry is the main livestock raised in this area. On average, poultry accounted for a half of livestock income. Given the dependence on poultry and the reported incidence of poultry diseases (especially influenza A virus), livestock income is likely to be unstable over time, though time dimension is not captured by the BLS. Raising pork ranked after poultry as second most important livestock. The ethnic groups in the Northern Uplands tend to earn more from livestock than those in the other regions of the country. While the Tay, Thai, Muong, Nung, Dao earned higher than the average level, earnings from livestock in the Central Highlands are generally lower. In particular, the Bana, Co Tu earned only one fifth compared to the average livestock income (per head) of the extremely difficult communes.

As shown in Chapter 1, and confirmed elsewhere (see, for instance, Pham et al. 2009 using the VHLSSs), forestry account for the majority of land endowment of the ethnic minority in the extremely difficult communes. Forestry income is however modest. On average, forestry income is around income from poultry, cows, and buffalos together. The ethnic groups in the Northern Uplands and North Central Coast earned considerably more than those in the rest of the country in forestry activities due to land endowment in these regions. Consequently, the Tay, Thai, Nung, H'mong, Dao, and other groups in the North West earned from forestry activities more than other ethnic groups.

Seafood export growth has been an important source of economic growth in parts of the countries over the past decade. Aquaculture could be segmented into two broadly defined sub-sectors, including commercial aquaculture for export, and small-scale aquaculture for home consumption and/or supplying the domestic market. There are unfortunately statistics on participants in aquaculture are limited and it is thus not possible to provide a breakdown on the composition of these numbers according to export and small-scale aquaculture producing for the domestic market. Nevertheless, it is widely considered that most small-scale aquaculture is undertaken by poor farmers and fishermen. This point reflects the situation found in the extremely difficult communes. It is evident in Table 3.2 that aquaculture is a marginal livelihood amongst the extremely difficult communes. Aquaculture is mainly focused in the Mekong River Delta, while diversification into this activity by ethnic groups in other regions is extremely limited. It is observed that the majority participate most actively and hence earn most from aquaculture compared to any

[17] It is desirable that the details on the other activities should also be covered in the study. However, data availability is a constraint for further disaggregate analysis of the forestry and aquaculture activities

other ethnic groups. This might relates to the requirement of knowledge and investment in aquaculture.

Table 3.4 Livelihoods from Livestock, Forestry, and Aquaculture (% and 1000 VND)

	Structure of livestock income					Total live-stock	Forestry		Aqua-culture	
	Pork	Cow, buff-alo	Castle	Pou-ltry	Others		Trees	Ser-vices	Rai-sing	Cap-ture
Average	32.2	6.2	3.0	50.1	9.5	348	178	23	101	16
By regions										
Red River Delta	35.4	6.2	3.7	46.0	13.8	660	44	30	-36	1
North East	32.2	4.5	3.7	46.5	13.8	480	255	28	22	9
North West	34.3	5.7	3.1	49.8	7.2	341	211	32	38	10
North Central Coast	31.9	10.6	3.8	47.1	7.9	478	285	35	13	35
South Central Coast	21.2	5.3	1.6	66.2	5.8	315	169	18	19	6
Central Highlands	17.3	16.0	3.2	58.2	10.6	168	60	16	14	5
Southeast	13.1	32.5	0.3	54.7	0.0	97	145	27	5	3
Mekong River Delta	40.9	2.5	0.0	57.1	0.2	171	33	0	416	31
Ethnic groups										
Majority	32.6	6.0	2.4	53.8	7.5	379	121	10	275	16
Ethnic minority	32.0	6.3	3.2	48.8	10.2	332	205	29	16	16
Tay	32.6	4.4	2.6	46.1	14.6	498	309	19	22	20
Thai	34.8	7.9	2.2	46.9	8.6	363	208	41	51	32
Muong	40.5	6.2	4.9	47.2	2.9	490	187	21	22	5
Nung	28.0	-1.5	3.2	50.4	20.3	483	274	9	20	7
Mong	30.4	7.6	4.8	43.3	14.6	285	222	26	2	3
Tay	30.4	9.1	3.0	43.7	13.9	413	295	60	16	5
Others in NU	25.1	3.6	4.4	61.0	6.2	234	234	50	17	9
Bana	6.0	37.0	0.0	49.6	7.5	75	72	3	1	2
H're	16.5	3.1	0.5	73.4	6.6	298	136	1	10	0
Co Tu	8.4	9.7	0.1	80.2	1.6	139	285	58	24	16
Others in CH	15.4	14.2	10.1	58.3	4.4	58	166	91	6	10
Khmer	46.4	7.2	0.0	46.2	0.2	136	14	0	-22	28
Other ethnic group	24.1	-4.2	0.7	77.5	1.9	143	201	24	2	23
Gender of household heads										
Male	32.7	6.5	3.2	48.9	9.7	347	185	23	118	17
Female	27.8	3.7	1.9	59.9	7.9	348	132	18	-3	6
Daily language										
No or little Viet	29.4	7.6	3.5	49.1	10.9	279	192	31	8	16
Both Viet and ethnic	39.3	4.1	2.3	47.3	7.4	399	250	27	33	11
No or little ethnic	32.1	5.5	2.7	53.3	8.5	411	130	11	243	15
Poor vs non-poor										
Poor	29.3	3.9	2.7	52.6	12.4	166	146	22	-97	15
Non-poor	34.4	8.1	3.3	48.1	7.2	483	201	23	248	16

Source: authors' calculations from the BLS

Livelihoods and market linkages

Market linkages are crucial for the growth of cash crops, and thus income of the households in the remote locations. This notion provides a strong background for infrastructure development support in Vietnam and elsewhere in the developing world. Our calculation revealed rice production was however found being mainly used for home consumption.[18] On average, only 15 percent of the total rice output was sold by the households in the area. The level of rice commercialization of the majority-headed households was considerably higher than that of ethnic minorities. While 31 percent of rice produced by the majority-headed households was sold, only eight percent of the rice output harvested by the ethnic minority-headed households was sold to the market. Industrial perennial crops were most market-oriented as nearly a half of these crops were traded. These proportions remain relatively stable when comparing across ethnic groups, language ability, and gender of household heads. The highest level of commercialization was found for the industrial and perennial crops. On average, nearly a half of industrial crop outputs were marketed. It is also noted that communes in the Southern part of the country were generally more market integrated than those in the Centre or in the North. This could be linked to the fact that this is the major bowl for rice export and rice production in the South was more market-oriented than in the other two regions.

In addition, the BLS reveals a monopoly of private traders in providing market linkages between the extremely difficult communes and centres of districts and provinces under consideration. In the case of rice, nearly 85 percent of rice commodity was actually sold to private traders. For other staple crops, 76 percent of commodities were bought by private traders. Unfortunately the BLS does not provide further information on these private traders and price margins. Pham and Konishi (2009) interviewed poor households in Son La and Dien Bien to indicate that the price margins taken by private dealers are anywhere between 20 to 50 percent. This high margin is partly due to (i) road conditions making access to remote villages prohibitive at times; and (ii) private dealers tend to dominate the transport of crops to the market and are able to charge above normal transport rates.

Through there has been great improvements access to physical infrastructures in recent years, quality of access remains a concern (see Chapter 2). Our observations in poor communes, for instance in the North West, suggest that there are inter-village road system to connect villages and villages to the commune. But all of these road are small dust road, making it difficult for travelling during the rainy seasons. At times, some communes/villages can be completely disconnected from the rest of the country during heavy rain. As a result, access to market by poor households in remote communities could

[18] We report the most important figures rather than provide full tables here to conserve the space. But detailed indicators for commercialization of different crops are available from the authors upon request.

be extremely limited. Most households have no choices but to rely on private dealers for inputs such as seeds, livestock feed, fertilizers, and for selling their output. Though this is not necessarily applicable to other provinces or regions, this does suggest that market linkages are likely to be an obstacle for escaping poverty of the poor in the difficult areas.

More importantly, it is noted that limited market linkages does coincide with continuous improvements in access to market facilities. Using data from the V(H)LSS, Pham *et al* (2009) reported a marked increase in the incidence of communes having access to new markets. This suggests that providing physical markets is important to promote commodity production in the poor communes. But this is certainly not sufficient. Promoting market linkages to generate income opportunities for the poor requires attention to both physical and institutional changes. Improving transportation and markets are as necessary as introducing innovative mechanisms to ensure that farmers in the difficult area could receive competitive prices for their output.

Chapter 4. Re-Examining the Ethnic Income Gaps

The gap in living standards amongst ethnic groups in Vietnam has been an area of intensive research. Most of the existing studies has investigated the gap in living standards between the majority and the 53 remaining minority groups using the data available from the series of VLSSs and VHLSSs. While highlighting the gap in living standards, as measured by per capita household expenditure, these studies have decomposed this majority-minority gap into differences in endowment (i.e., characteristics) and treatment (i.e., returns to characteristics) effects between the majority and the other ethnic minority groups. The differences in both components are found to favour the majority (see Pham et al. 2008 for a review).

However, the existing literature suffers from three major limitations. *Firstly*, when examining welfare of ethnic minorities, most of the previous studies acknowledged an important role of 'unobserved' factors, which are partly attributed to heterogeneity in locations. However, we are currently pretty in the darkness as we do not know how this heterogeneity affects the results. But the effect of this factor could be large when comparing a Kinh-headed household living in Hanoi and a H're-headed household, for instance, living in the Central Highlands. *Secondly*, previous studies have investigated the gap in living standards between majority and broadly defined minority groups at specific points in time using mean regression analysis. Although the aggregation of distinct groups is necessary and inevitable in such an exercise, the simple majority-minority dichotomy used in these studies is prone to distort important differences that may exist between individual ethnic groups.[19] *Finally*, as mentioned earlier, empirical evidence on welfare of ethnic minorities has been based using the VHLSSs and VLSSs, which were not designed to be representative for ethnic minorities. This warrants cautions in interpreting this evidence, especially in formulating policy suggestions based on that evidence.

In this context, the current study is developed to fill in the above gaps in the existing literature on ethnic minorities in Vietnam. This introduces the following novelty. *First*, the BLS interviewed different ethnic groups living in the extremely difficult communes of the countries that are of relatively similar socio-economic characteristics. As a result, the impact of location heterogeneity is minimized by the BLS itself. Thus, the welfare gaps between them (if any) could be better indicators to evaluate whether there are 'differences in returns' (or discrimination, if labour economics jargon is used). *Secondly*, in addition to

[19] This is largely due to data constraint. With exception of the VHLSS 2002, the other VHLSSs and VLSSs provides relatively small samples of ethnic minorities. This renders it difficult to investigate the welfare gaps among a finer disaggregation of different ethnic groups as the estimation results could be sensitive and unreliable due to small sample sizes.

re-examining the 'conventional' majority-minority welfare gap, the BLS provides a unique opportunity to investigate the welfare positions of around thirteen ethnic groups to the majority group as the base. This would produce, for the first time, insights on the welfare gaps among ethnic groups with a finer and at a more disaggregate classification of ethnic minorities.

This chapter adopts the Blinder-Oaxaca decomposition approach to examine the income gap across the ethnic groups. As a starting point, this approach will be applied to examine the income gap between the majority and the ethnic minority. Pursuing this approach in the current study involves two stages. First, the function of household income will be regressed on a number of explanatory variables at the household level, including demography, education, landholding, access to basic infrastructures, access to policies and other support. Table A4 of the appendix reports the mean regression estimates for the different ethnic groups using the above framework. These estimates are not the subject of discussion here to conserve space. However, the estimates are generally signed in accordance with priors and have plausible magnitudes. The 'goodness-of-fit' measures are satisfactory by cross-sectional standards, which is an important requirement given the decomposition analysis undertaken in this study.[20]

In the second stage, the estimates obtained from the first stage are then used to decompose the total income gap into the 'differences in characteristics' and the 'differences in returns to characteristics". For simplicity, these two component should be understood in the following way. Suppose that one majority-headed household A has one hectares of terrace land suitable for maize; another ethnic minority-headed household B has two hectares of terrace land of the same quality. Then the 'differences in characteristics' between household A and B is one hectare. Assuming that maize cultivation on these land is the only economic activity that the two household pursue; the total income of household A and B (from maize cultivation) is VND 2,000,000; then the productivity of household A is two millions/hectare, while that of household B is one million/hectare. In this case, this productivity could be considered as 'return' to maize terrace land; and the 'differences in returns to characteristics' between household A and B is one million VND. In this context, the former refers to how the majority and the ethnic minorities differ in terms of demography, physical assets, education, access to infrastructures etc. while the latter refers to differences in how the majority and the ethnic minorities benefit from their characteristics.

[20] To avoid unnecessary difficulty for the reader with non-econometric background, this report will not describe the Blinder-Oaxaca decomposition approach adopted to investigate empirically the income gap across the ethnic groups. Instead, the technical details are given in Annex 3 of the Appendix for further references.

After performing these two stages, we will be able to know the relative importance of the 'differences in characteristics' component (also called the 'endowment effect') and the 'differences in returns to characteristics' component (also called the 'treatment effect') in the total income differential between the majority and the ethnic minority. The Blinder-Oaxaca approach will then be pursued between the majority and each ethnic minority group that is identified in this study. The next section will focus on the results obtained from applying this approach using the BLS data.

4.1 Income gap across ethnic groups: Empirical results

The differences in household per capita income between the Kinh majority vis-à-vis the ethnic groups are decomposed into the differences in characteristics and the differences in returns to characteristics as in Table 4.1. The first two rows represent the decomposition of the income gap between the Kinh majority and the ethnic minority as a whole. This reaffirms the previous studies and notes a considerable income gap of 70 percent (i.e. 0.53 log point) between the two groups. The result reveals that around one third of the total difference is attributed to differences in the average characteristics of the Kinh and the ethnic minority. These are differences in landholding, educational attainment, household demographic features, access to infrastructures, and access to programmes and support. Importantly, the remaining of two third is attributed to differences in returns to the above characteristics. It should be noted that these differences are statistically significant at the conventional level. This finding reported bigger scale of the differences in refurn component comapred to that found in Pham *et al.* (2008b). This that study, the data from the V(H)LSSs in the period 1992-2004 was employed and reported that the differences in returns to characteristics contribute for at least a half of the gap in household per capita expenditure across the majority and ethnic minority groups.

Table 4.1 Decomposition of the Income Gap

	Total differences	Differences in endowment	Differences in treatment
Kinh vs EMs	0.5311***	0.1796***	0.3515***
	(0.047)	(0.065)	(0.053)
Kinh vs Tay	0.427***	0.0364*	0.3906***
	(0.049)	(0.02)	(0.056)
Kinh vs Thai	0.5302***	0.0656*	0.4646***
	(0.057)	(0.039)	(0.062)
Kinh vs Muong	0.3696***	-0.0031	0.3726***
	(0.067)	(0.021)	(0.066)
Kinh vs Nung	0.4618***	0.0351	0.4268***
	(0.067)	(0.03)	(0.065)
Kinh vs H'mong	0.8745***	0.2022***	0.6723***
	(0.04)	(0.074)	(0.087)

Kinh vs Dao	0.5605***	0.0757**	0.4847***
	(0.051)	(0.041)	(0.068)
Kinh vs Other in NM	0.6195***	0.1983***	0.4211***
	(0.091)	(0.054)	(0.102)
Kinh vs Bana	0.7306***	0.1616**	0.569***
	(0.089)	(0.079)	(0.098)
Kinh vs H're	0.6722***	-0.0421	0.7142***
	(0.078)	(0.041)	(0.087)
Kinh vs Co Tu	0.5346***	0.1957***	0.3389***
	(0.09)	(0.057)	(0.08)
Kinh vs Other in CH	0.7421***	0.1844***	0.5577***
	(0.067)	(0.065)	(0.075)
Kinh vs. Khmer	0.196**	0.0511	0.1449***
	(0.08)	(0.039)	(0.086)
Kinh vs Others	0.7437***	0.2026***	0.5411***
	(0.079)	(0.062)	(0.086)

Notes:

(a) The decomposition in this table uses the set of majority coefficients as the reference group for unequal treatment; see expression [3] in the text.

(b) ***, **, and * denotes statistically significant at the 0.01, 0.05 and 0.1 levels respectively;

(c) Standard errors are reported in parentheses and are based on bootstrapping with 200 replications.

This chapter offers further insights on the gap in living standard between the Kinh majority and a number of individual ethnic groups. Table 4.1 reports the decomposition results for the differences in per capita income between the majority group and the other thirteen ethnic groups. Figure 4.1 represents the raw differences in per capita income between the Kinh majority and other groups given in the first column of Table 4.1. The income gap of 70 percent between the majority and the ethnic minority is highlighted in red colour. The Khmer group has the smallest income gap with the majority compared to that of the other ethnic minority groups. Muong, Tay, Nung, Thai are the four ethnic groups that are arguably most assimilated to the Kinh majority. These groups are also better off compared to the average of the ethnic minority. The other ethnic groups are however lagged behind. Of the individual ethnic groups that could be statistically identified in this chapter, the H'mong experienced the largest income gap with the majority. Our estimates show that the income gap between the H'mong and the majority is nearly 140 percent. With the exception of the H'mong, the ethnic groups in the Central Highlands are found to be most disadvantaged to the majority. The Bana, H're, other ethnic groups in the Central Highlands, suffered from an income gap of more than 110 percent with the majority. The 'others' group refers to small individual ethnic minority groups residing in the other regions rather than the Northern Uplands and Central Highlands and could not be separated as a single group in this study. Not surprisingly, this group experienced an income gap of 110 percent compared to the majority group.

To ease the interpretation of the decomposition results, Figure 4.2 represents the endowment and treatment effects given in the last two columns of Table 4.1. The darker portions of the bar charts are the differences in characteristics, while the lighter ones are the differences in returns to characteristics. For the H're and Muong, the differences in characteristics compared to the majority are negative, but not statistically significant. For all the remaining ethnic groups, it seems apparent that differences in the observed characteristics contribute less than one third of the total income differences. At least two third of the income gap is attributed to differences in returns to those characteristics.

Figure 4.1 Income Gap Amongst the Ethnic Groups (%)

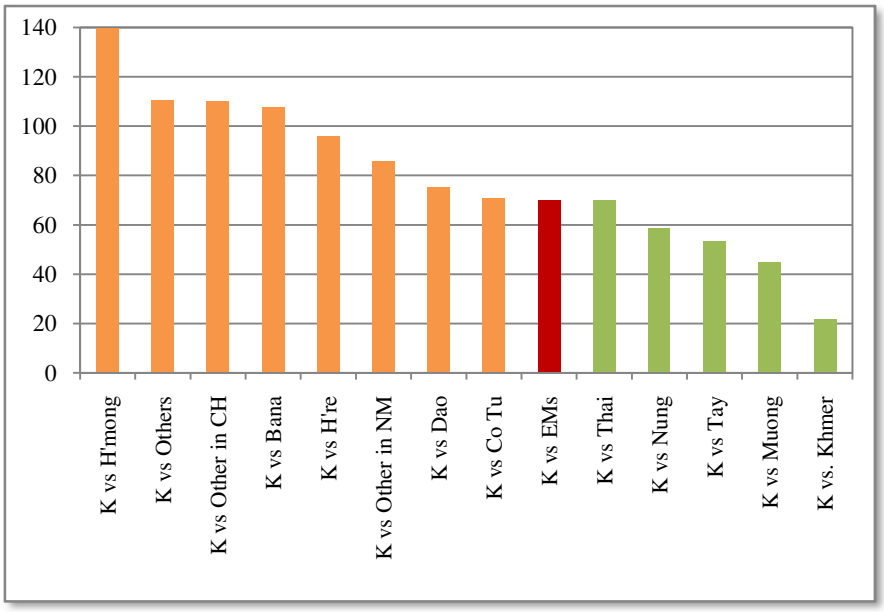
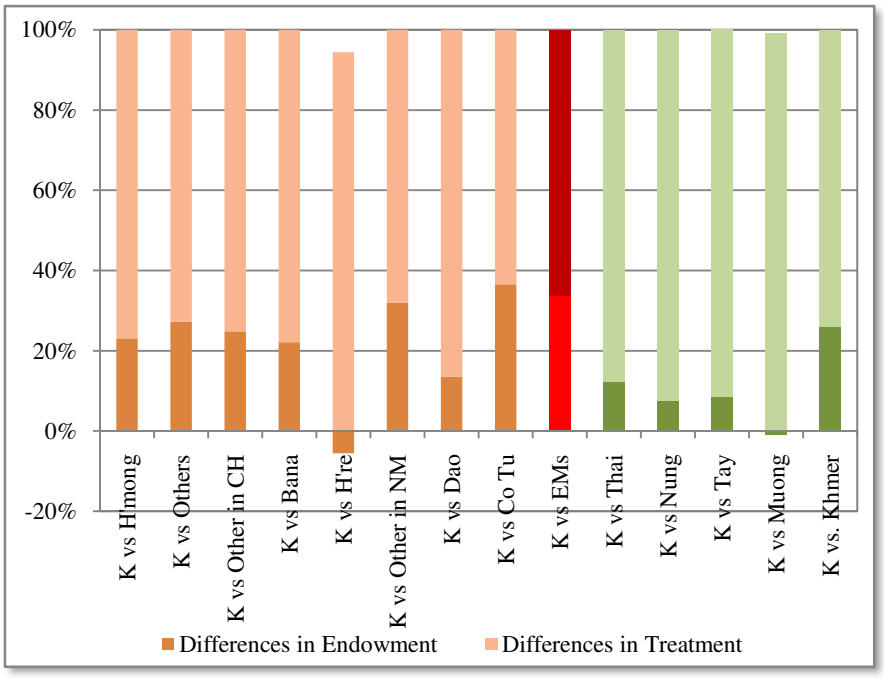


Figure 4.2 Differences in Endowment vs. Differences in Returns (%)



The analysis above suggest that the endowment effect found in the extremely difficult communes under this study is relatively smaller than those found in the previous studies using the V(H)LSSs (Van de Walle and Gunewardena, 2001; Baulch *et al*. 2004, Hoang *et al.* 2007, Pham *et al.* 2008). This difference is plausible as the differences in household and community characteristics between the ethnic groups residing in the extremely difficult communes in this study should be less pronounced than the nation-wide average. This is largely linked to the plethora of policies and programmes to support poverty reduction, access to public services, and key infrastructure facility. However, the dominance of the treatment effect in the income gap amongst ethnic groups calls for an explanation.

4.2 Income gap across ethnic groups: Search for an explanation

One obvious issue is related to the empirical methodology used in this chapter. It should be noted that the differences in returns includes not only the coefficients of the explanatory variables themselves but also the intercepts, which capture unobserved factors. Candidates for these unobservable factors are very broad, ranging from the quality of endowments such as land, education and infrastructure to more subtle factors such as language, customs and practices, and even governance. Ideally, it would be best to carry out quantitative and qualitative analysis simultaneously. But this is too hard and costly to do so in a large scale for any surveys including this BLS as well as other V(H)LSSs. In attempt to shed lights on the drivers of this treatment effect, we based on the results from a host of PPA and anthropological researches on ethnic issues in Vietnam, summarized in the World Bank (2009) and VASS (2009), and our analysis using the BLS and V(H)LSSs.[21]

Language and Cultural Issues

When seeking for an explanation on what drives the above 'differences in returns', one obvious possibility is the ability of ethnic minorities to speak the Vietnamese language. Inability to speak Vietnamese language and some traditional cultural practices are emphasized as obstacles that prevent ethnic minorities from being better integrated into the economy and taking advantage of the new opportunities provided by the *Doi moi* in numerous qualitative studies. For example, VASS (2009) found that language constraints under-lied difficulties of ethnic people in accessing services and information. According to World Bank (2009), ethnic women were often reported as being reluctant to use free services due to language and cultural barriers.

Language, however, is not the only barrier to prevent the ethnic minorities from benefiting the mainstream economic development but also other socio-cultural factors. As discussed in World Bank (2009), these may include factors such as "community levelling

[21] This analysis is drawn from the author's contribution to Pham *et al.* (2009).

mechanisms that create social pressure against excess economic accumulation and cultural perceptions of social obligations and "shared poverty"; religious obligations that require economic expenditures; gender expectation grounded in different cultural models; and community ownership of land and assets". Minorities are also reported as not being able to do many economic transactions as the Kinh such as charging interest on loans and selling things to neighbours and kin. These are regarded as against the minorities' social norms.

In attempt to capture partially the impact of ability to speak Vietnamese and some cultural factors on welfare status of ethnic minorities, Pham *et al.* (2008) and Baulch *et al.* (2009) estimated a simple regression in which the per capita expenditures of ethnic minority-headed households were regressed on the set of the explanatory variables that is essentially the same as the one used in this study, augmented by matrilineal practice, religion, Vietnamese language ability. The results show that ability to speak Vietnamese is an important determinant of welfare for ethnic minority households. For instance in 1998, coming from an ethnic minority-headed household whose head was unable to speak Vietnamese language decreases real per capita expenditures by nearly 10 percent. The association of Vietnamese language ability and expenditures is similar in 2004 and 2006. *Ceteris paribus*, a head's inability to speak Vietnamese is associated with a 10 to 12 percentage point reduction in the level of per capita expenditure for ethnic minority-headed households.[22] This finding is consistent with empirical results in the literature. For instance, Grafton *et al.* (2007) shows linguistic barriers to communications reduce productivity and capital accumulation.

Returns to land and land quality

As highlighted in Chapter 1 and 3, ethnic minorities possess more land than the majority and their land holdings have tended to increase over time. However, the ethnic groups' land bundle consists mostly of forest land and low quality, non-irrigated annual crop land while the majority have much more water surface land and their crop land is usually irrigated and of higher quality. Baulch *et al.* (2009) show that more than 80 percent of the annual cropland of the majority was irrigated, while only 44 percent of ethnic minority land was irrigated in 2006.

In addition, there are many factors that place ethnic minorities at disadvantage in making use of their land endowments. First, the ethnic minorities live in places where the farm productivity and efficiency is generally lower. At the same time, the agricultural extension services provided to the ethnic minorities are often not appropriate as they are based on wet rice cultivation techniques suitable for the lowlands (Jamieson et al., 1998, World

[22] Note that these regression results did not find any evidence that matrilineal practices or religion are statistically significant determinants of the per capita expenditures of the ethnic minorities.

Bank, 2009, ADB, 2002). Rice varieties which are more appropriate to the soil conditions in the mountains are often too expensive (VASS, 2009).

Second, their knowledge about their rights over land is less than the majority. Historically, the ethnic minorities used to live in land tenure systems in which community-managed land was not commoditized (Vuong, 2001). The land reforms in Vietnam, which aims at allocating land to households, have proved to be a big success for Vietnam's development and poverty reduction (Ravallion and van de Walle, 2008). Yet, to many ethnic people, understanding and practicing their land rights is still a challenge (VASS, 2009). Not being able to communicate well in Vietnamese is a further barrier to some ethnic people's access to land laws and procedures.

Third, ethnic customs and conventions restrain some ethnic people from exercising their rights over land. According to Vuong (2001, p.275), "communal land ownership bears the most characteristic of community-wide participation in land administration of ethnic minorities in the highlands, where land was a common possession; community members had the right to use but not to sell it; land administration was bound with religious beliefs and closely linked with territorial sovereignty and autonomous village governance structures". So, in the transition to a more market-based land tenure system, many ethnic households were unwilling to practice their private land use rights. Indeed, ethnic households with abundant land have been found to lend it to those with less land for cultivation without any charge (VASS, 2009).

Thus given better land quality, the majority have generally been more successful in translating their land assets into higher returns under Vietnam's new market economy. As shown in Chapter 3 of this study, the majority have diversified more within the agricultural sector, relying more on industrial and perennial crops and less on low-value staple crops, and have often supplement their farm income with trading or services. The ethnic minorities, on the other hand, tend to be locked in staple and traditional agriculture (World Bank, 2009). While food crop were the most important source of agricultural income for the ethnic minorities after rice, the majority households relied on industrial crops to supplement their incomes from rice production.

Education Quality and the Returns to Education

Quality of education could be an important unobserved factor underlying the aggregate component of 'differences in returns' reported above. However, data on education quality is however rarely available. Furthermore, when assessing the returns to education it is past rather than current educational quality that is important. Our estimates on the determinants of per capita income shows that, after controlling for other household and community characteristics, the returns to education of both the majority and minority groups are positive. Furthermore, they generally favour the Kinh/Hoa group at all schooling levels

with the exception of primary (see Table A2 in the appendix). These results are similar to those of Baulch *et al.* (2009), who show that returns to education are higher for the majority households than the ethnic minority-headed households in cases in the period 1993-2004. The same results are also observed in Walle and Gunewardena (2001) for 1993 and Nguyen *et al.* (2009) for 2002, 2004 and 2006. This suggests that a generalized policy of education expansion will not be enough to close the ethnic education gap.

Regarding wage returns to education, the previous literature notes that education is an important factor of the wage determination process in Vietnam (Pham and Reilly, 2009). It is likely that education is more important to wage and salary employees in rural areas than those who are self employed (either in agriculture or in the rural nonfarm sector). However, as highlighted in Chapter 3, the ethnic minorities are much less likely to be employed as wage workers and are generally less mobile than the majority. Furthermore, not only is access to wage income is limited for ethnic minorities, but the few ethnic minority workers who are wage employee are subject to lower returns than the majority counterparts with the same characteristics. Pham and Reilly (2009) examined the ethnic way gap using the data from the VHLSS 2002. After controlling for education, experience and other relevant characteristics, they report that majority workers earn nearly 11 percent more on average than their minority counterparts. Around two-thirds of this earnings differential is attributed to 'differences in returns'. So the returns to educations are lower for ethnic minority than majority wage workers.

Misconceptions and stereotyping of ethnic minorities

An important source of the 'differences in returns' is very difficult to quantitatively measure and is a sensitive issue in policy debates in Vietnam. It is quite common for some Kinh people to have 'negative stereotypes' of the minorities, and these stereotypes might serve to dis-empower or deprive the minorities of their economic and other rights. Our own observations (based on considerable experience working in the areas of ethnic minority development) suggests that ethnic minorities are frequently considered as less developed, and at times less "civilized" or more 'backward', than the Kinh. For several reasons, ethnic minorities have long been considered as different from Kinh and the attention paid to poverty reduction in upland areas by the Government and international donors has served to reinforce the longstanding perception that minorities are economically backward and should be assisted to "catch up" to the Kinh (World Bank, 2009). Given these negative stereotypes, there has been a general tendency to assume that ethnic minority development should involve interventions to eliminate 'backwardness' and/or promote assimilation with the Kinh majority. Some ethnic minority development programs and policies in Vietnam have included campaigns that try to change the "cultures" of minority areas, including eradicating religion, primitive beliefs, superstitions taboos and wasteful social ceremonies. Such interventions are intended to move the ethnic minorities up the 'civilization ladder'

and to facilitate their 'catching-up' to the Kinh majority or even promote 'Kinh-isation'. This reflects the widespread notion in many Southeast Asian countries that their majority populations should be considered as superior to ethnic minorities (Duncan, 2004).

It is not clear, however, how such misconceptions and negative stereotyping have actually prevented ethnic minorities from taking advantages of opportunities brought by the *Doi moi* in the same way as the majority majority. Vietnam has laws which prevent discrimination, while Article 5 of the Constitution states that all people regardless of their ethnic origins are considered equal under laws. In addition, there are no cultural codes deeply embedded in society regarding peoples' "status" and "place," as might be the case in societies in which castle is an issue (such as India). These are among most important background for those who believe that discrimination does not exist. However, we argue that the existence of the above stereotyping and misconceptions does represent in one way or the other some harmful impacts on (or even implicit discrimination against) ethnic minorities. For instance, as the 'backwardness' of ethnic minorities are widely recognized, it could effectively decrease participation of ethnic minorities in society. More seriously, it may also cause inclination of authorities to listen and thus respond to ethnic minorities as they are considered as less 'civilized' or having 'inferior intellectual capacity'.

A recent survey by the Institute of Ethnic Minority Affairs, described by the Country Social Assessment (CSA) of the World Bank (2009) provides evidence of a number of instances of negative stereotyping of the ethnic minorities. For instance, belief that the minorities have less intellectual capacity can result in investment in Kinh development to "show minorities how to develop", as was the case with migration programs in Quang Tri, rather than directly investing in minority communities themselves. Another example from the CSA where stereotyping occurred was found in the credit system in Dak Lak. There, the Ede reported that the staff of large commercial banks would state (either explicitly or implicitly) that minorities did not have sufficient credit worthiness to obtain large loans, and would therefore direct Ede to the Social Policy Bank. The belief of bankers that minorities couldn't handle larger loans, or the belief among Ede that they would not receive such loans even if they asked, accounts for the fact that many Ede have never taken a large loan out, while many more Kinh have. Through it is not possible to generalize these observations to confirm that there is discrimination against ethnic minorities, the existence of such misconceptions and negative stereotyping does represent a source of disadvantages for ethnic minorities. These could be considered as another factor that contributes to the 'differences in returns' component of the ethnic expenditure gap reported in this paper.

In summary, using the finding from this chapter, several implications could be drawn. There is a considerable gap in living standard between the majority and the ethnic minority. This gap is attributed mainly to differences in returns to characteristics of the two

groups. And remoteness is not the only source of the gap in living standard amongst ethnic groups. In the extremely difficult communes, the gap in per capita income between the majority and the ethnic minority is considerably high. The income gap between the ethnic minority groups and the majority in the extremely difficult communes varies greatly from 20 to 140 percent. This suggests that poverty reduction efforts should not be implemented without a throughout consideration of the welfare status of individual ethnic groups.

Chapter 5. Recommendations for Future Policies and Programmes

This final chapter of the report will firstly review the current policies and programmes to support poverty reduction for the poor ethnic minorities. Instead of providing a comprehensive review of policies and programmes, this chapter will focus on the 'mismatch' between the current policies and programmes and the characteristics of the poor ethnic minorities (as analyzed in the previous chapters). More importantly, this chapter will produce a set of suggestions for future policies and programmes for the poor ethnic minorities. These recommendations are based on the understanding of the poor ethnic minorities as captured in the earlier chapters and the 'mismatch' highlighted in the first section of this chapter.

5.1 Review of the current policies and programmes for the poor ethnic minorities

Vietnam has had a plethora of policies and programmes aiming at poverty reduction but effective coordination among stakeholders is 'missing'

Vietnam has had a plethora of policies and programmes aiming at poverty reduction, improvement of people's living standards, including those for the poor in general and some specifically for the poor ethnic minorities. These policies and programmes could be classified according to their scopes and approaches of interventions as follows (see the box next page):

Comprehensive poverty reduction programs and projects are programs with the general approach, aiming at improving all aspects of life of poor households from access to services (education, healthcare), infrastructure, production support (seeds, fertilizers, trainings and capacity building, agriculture extension), promoting commodity production and market links, vocational training, participation in the labor market. Most significantly, there're Programme 135-II; National Target Program on Poverty Reduction, 2006-2010; Program for Fast and Sustainable Poverty Reduction in 62 poorest districts (Programme 30A).

Programs that have direct or indirect impacts on people's living standards improvement with national approach are National Target Programs (NTP) and other national programs target, focusing on some specific aspects of living standards. Notable examples include the NTP on Rural Clean Water Supply and Sanitation; NTP on Education and Training; NTP on Job Creation till 2010; NTP for Population and Family Planning, NTP on New Rural

Development, NTP on Culture... Most of the NTPs have been implemented the second phase in the period of 2006-2010 after completing the first phases in the period 2000-2005.

Poverty reduction policies and programs with regional approaches are programs with emphasis on support some certain geographical areas, which may or may not relate to poverty reduction efforts for ethnic minorities. The most notable are the Socio-economic Development Programme of Communes along Vietnam-Laos-Cambodia border (Decision No.160/2007/QD-TTg); Job Creation Programme for Ethnic Minorities in the South West, 2008-2010 (Decision No.74/2008/QD-TTg); Forest Allocation and Protection for Ethnic Minorities in the Central Highlands (Decision No.304 /2005/QD-TTg); Socio-economic Development Programme (SEDPr) in the Central Highlands (Resolution No.10/NQ-TW); SEDPr in Northern Mountainous Areas (Resolution No.37/NQ-TW); SEDPr in the Central Coast (Resolution No. 39/NQ-TW); SEDPr in the South West (Resolution No.21/NQ-TW).

Poverty reduction policies and programs with sectoral approach support specific aspects such as education, healthcare, housing, access to land, clean water, afforestration. Example of this type includes, for instance, the Programme 134 providing access to land, housing and clean water; the Programme 167 providing support for poor households; the 5-million hectare afforestration Programme; the Programme on Healthcare for the poor (Decision No.139/2002/QD-TTg).

Some poverty reduction programmes and policies for the poor ethnic minorities.

Comprehensive Support

- The Socio-economic Development Programme for the extremely difficult communes in the ethnic minority and mountainous areas (Decision No.07/2006/QD-TTg)
- The Programme for Fast and Sustainable Poverty Reduction in 62 poor districts (Resolution 30A/2008/NQ-CP)
- Policy to support the ethnic minorities and policy beneficiary household, near poor and poor households and fishermen (Decision No.965/2008/QD-TTg)
- Support for basic needs of ethnic minorities in disadvantaged areas (Decree No.20/1998/ND-CP; and Decree No.02/2002/ND-CP)

Sectoral Support

- Support ethnic minority students in boarding high schools (Circular No.109/2009/TTLT-BTC-BGDDT)
- Scholarships and social welfares for ethnic minority students (Circular No.43/2007/TTLT-BTC-BGDDT)
- Support teachers in extremely difficult areas (Circular No. 06/2007/TTLT-BGDDT-BNV-BTC)
- Preferential loans for the ethnic minorities facing severe difficulties (Decision No.32/2007/QD-TTg)
- Support the ethnic minorities, near poor and poor households, and social policy beneficiary households in areas without national grid (Decision No.289/2008/QD-TTg)

Ethnic group support

- Development of Si La ethnic minority in Lai Chau Province (Decision No.236/QD-UBDT)

- Development of Si La ethnic minority in Dien Bien Province (Decision No. 237/QD-UBDT)
- Development of Pu Péo ethnic minority in Ha Giang Province (Decision No. 238/QD-UBDT)
- Development of Rơ Măm ethnic minority in Kon Tum Province (Decision No. 292/QD-UBDT)
- Development of Ơ Đu ethnic minority in Nghe A Province (Decision No.304/QD-UBDT)
- Development Brau ethnic minority in Kon Tum Province (Decision No.255/QD-UBDT)

Regional Support

- Social-economic development support in the areas along Vietnam - Laos - Cambodia border (Decision No.160/2007/QD-TTg)
- Production land, housing land and job creation support for poor ethnic minorities in Mekong River Delta, 2008-2010 (Decision No.74/2008/QD-TTg)
- Forest allocation and protection for ethnic minorities in the Central Highlands (Decision No.304/2005/QD-TTg)
- Social-Economic Development Support for the Central Highlands (Resolution No.10/NQ-TW and Decision 25/2008/QD-TTg)
- Social-Economic Development Support for Northern Mountainous Areas (Resolution No.37/NQ-TW and Decision 27/2008/QD-TTg)
- Social-Economic Development Support for Central Coastal areas (Resolution No.39/NQ-TW and Decision 24/2008/QD-TTg)
- Social-Economic Development Support for Mekong River Delta (Resolution No.21/NQ-TW and Decision 25/2008/QD-TTg)
- Support ethnic minorities for resettlement (Decision No.33/2007/QD-TTg on 05/03/2007)
- Support for resettlement in the communes along the border with China (Decision No.60/2005/QD-TTg on 03/24/2005)

Source: compiled with modification from Jones et al (2010)

Having several policies and programmes to support the poor in general and the poor ethnic minorities that jointly contribute to poverty reduction is a distinctive feature of Vietnam under the *Doi moi.* However, this also represents a problem. Jones *et al.* (2010) in a UNDP summary report on these policies and programmes concluded that the 'overlapping' in programme design is very high. In terms of scope and beneficiaries, there are two major overlaps. The first is the 'overlapping' among poverty reduction programmes and policies in general. The second is the 'overlapping' among poverty reduction programs and projects for ethnic minority groups. In terms of organization and management, there is considerable 'overlapping' between implementing and/or 'owning' agencies (most significantly among CEMA, MOLISA, and other line ministries) in implementing poverty reduction programs and policies for ethnic minorities.

In principles, the 'overlapping' in poverty reduction programs for ethnic minorities is not necessarily a limitation if programmes and policies are implemented in a way to ensure that there are no overlaps in beneficiaries or the design of the new programmes is made. And thus, as suggested by Jones *et al.* (2010), this overlapping in design should not be necessarily a big problem. In fact, the localities often try to ensure that the 'overlapping' in the design will not lead to the 'overlapping' in beneficiaries. In addition, they usually

integrate (at various level) resources and plans of poverty reduction programs and projects into Social Economic Development Plans (SEDP) and annual plans. On that basis, the 'overlapping' in implementation may be mitigated.

However, it is not easy to ensure that the 'overlapping' in design does not become the 'overlapping' in beneficiaries. Even the locality can guarantee that the resources of all programs and projects are integrated in their annual socio-economic development plan, it remains a big challenge for full implementation of activities in accordance with the provisions of each programme or project. Jones *et al.* (2010) estimated that many localities must comply with 100 regulations and guidelines used for the existing programs and projects. It is obviously very difficult to fully implement a series of the provisions, especially in the condition of limited human resources in the local level.

Until now, not many studies about the consequences of 'overlapping' in management and implementation of poverty reduction programmes and policies. In fact, there are many agencies and organizations relating to the management and implementation of poverty reduction intervention. CEMA as 'the standing committee' of the P135 is arguably the most important agencies of poverty reduction programmes for ethnic minorities. MOLISA (with the National Target Programme (NTP) on Poverty Reduction, job creation programmes...), MOET (with NTP on Education and Training; education support policies), Ministry of Health (MOH) (with NTP on Population and Family Planning; Healthcare support programs), Ministry of Natural Resources and Environment (MONRE), and Ministry of Agriculture and Rural Development (MARD)... are implementing and/or 'owning' agencies of important poverty reduction programs and projects. In addition, Ministry of Planning and Investment (MPI), Ministry of Finance (MoF) also play a role of state management in poverty reduction projects supported by international donors. International organizations, governmental organization, and NGOs who have supported various programs and policies are also key players in implementation of poverty reduction programmes... In this given context, it is very difficult to ensure an effective coordination mechanism among the relevant agencies. It is likely that this lack of effective coordination mechanisms hamper the effectiveness of poverty reduction interventions for ethnic minorities.

Current approach to poverty reduction has not fully addressed all facets of poverty amongst ethnic minorities

Have the plethora of programmes and polices tackled all facets of poverty?

There is no doubt that the above interventions have brought in significant contribution to poverty reduction for the poor ethnic minorities, through slower than average (see chapter 1). However, it can be seen that with the above intervention priorities, poverty reduction programs for ethnic minorities mainly emphasize on address disadvantages of ethnic

minorities in terms of endowment (i.e. the differences in characteristics). As shown in Chapter 4, these differences contributed as much as one third of the total difference in gap in income per capita between the majority and different ethnic minority groups. Therefore, one of important reasons for economic 'backwardness' of ethnic minorities, which is the differences in returns to characteristics has not been paid due attention when determining intervention priorities to reduce poverty. In other words, the current plethora of poverty reduction policies and programmes have mainly aimed at ensuring that ethnic minorities are provided with production land, housing, access to public services, essential infrastructure. Very little efforts are made to ensure that ethnic minorities really use and know how to take advantage of this access to improve their living conditions, and escape from poverty. There is also little attention and intervention to ensure equal (market) returns to endowment across the minority and majority groups.

Given the relative importance of the differences in returns, the lack of awareness and interventions to tackle these differences represents a considerable shortcoming of the existing policies and programmes for poverty reduction. There has not been a single study that investigates the impact of this leakage. However, this raises a number of important questions, such as whether this leakage is one (of several) reason(s) leading to the widening gap in living standards across the majority and minority groups?; whether this constitute to the lower poverty reduction for ethnic minorities compared to that of the majority? The answers to these important questions have not been provided by the current literature. Nevertheless, it could be taken to suggest that provision of access to public services, basic infrastructure facilities, and essential physical assets (housing, landholding) solely is clearly not sufficient to tackle multi facet poverty of the ethnic minorities. Therefore, attempts to narrow the differences in returns to characteristics between the majority and minority groups should be considered as priority for future poverty reduction programmes.

Do poverty reduction approaches for ethnic minorities have adequate 'sensitivity' with the differences among the ethnic minority groups?

Except for some small-scale support programs for the very small ethnic minority groups such as Si La in Lai Chau and Dien Bien, Pu Péo in Ha Giang, Rơ Măm, Brâu in Kon Tum; Ơ Đu in Nghe An, most of poverty reduction programs for ethnic minorities generally target to 'ethnic minority' as a single group. In other words, major poverty reduction programs and policies have aimed at reducing poverty for ethnic minorities without distinguishing individual ethnic minority groups. Therefore, poverty reduction for the ethnically diversified 53 minority groups are carried out using a 'one-size-fit-all' approach without adequate attention of differences in history, culture, practices, and other anthropological characteristics of each group. The question is whether such approach is appropriate?

There is no doubt that the 53 ethnic minority groups in Vietnam have very different characteristics. They distribute in different geographical areas and topology, and thus are endowed differently in terms of factor of productions (mainly in agriculture). As far as language concerned, the 53 ethnic minority groups in Vietnam can be classified into seven different linguistic families, which lead to distinctive features of languages, culture, practices and habits. If considering anthropological factor, the 53 ethnic minority groups have very different origins, some of them originally from Central Asia (the Tibetan-–Burma linguistics family), some from Southeast Asia, Pacific regions migrating into the peninsula and then further into the highlands (Austro Island linguistics family), some migrating from South China, South Asia... After many ups and downs of history, despite of their unity in the resistance war for national independence and construction process, ethnic minority groups still preserve their own distinctive characteristics of languages, cultural practices and norms... Studies have proved that these characteristics have important effects on household welfare. In such conditions, having a program or policy with a 'one-size-fit-all" approach for all ethnic minority groups is not sufficient to effectively address poverty amongst ethnic minorities.

It is worrying that the 'one-size-fit-all' approach is widespread in the programmes and policies to support poverty reduction for the ethnic minorities (except for some small support programs for ethnic minority groups with very few people, as mentioned above). Consequently, poverty reduction intervention have not been responsive to characteristics of each ethnic group. This approach has certain advantages and ensure uniformity in the implementation process and appropriate for 'mixed' distribution of ethnic minority groups in many locations. This certainly prevents having interventions that are responsive and sensitive to the characteristics and needs of individual ethnic groups.

Ensuring the availability of 'access' is not sufficient; ensuring ' better access' is equally important

There are two important issues that arguably determine the benefit of the ethnic minorities from public services and basic infrastructure, including (i) to ensure that the ethnic minorities are able to access those services and facilities; and (ii) to ensure that the ethnic minorities have access to services and facilities that are as good as the average level. While the former has been the focus of the existing policies and programmes, the concentrated and resolved, the latter has not been paid due attention.

The analysis using data from the BLS as well as other data sources does not provide sufficient assessments on differences in the quality of access to public services and infrastructure across the majority and minority groups. However, there is a widely recognized fact that the quality of public services and infrastructure in the areas with concentration of the ethnic minorities are lower than the average nationwide or that of the

rural areas. For instance, schools in poor communes of the P135-II are less well equipped as those usually observed in the rural areas. According data from the Ministry of Education and Training, around 11 percent of schools are temporary in 2009 and most of them are in the extremely difficult communes. Though most of all the extremely difficult communes under the P135-II have road to commune centers, these roads are of lower quality than the average level in the rural communes and could be difficult to access under heavy rain. Quality of drinking water is also lower than average in the rural areas.

To promote improvements in quality of infrastructures and basic services in the areas with concentration of the ethnic minorities is a big challenge, which might even more difficult than ensuring the availability of access. It requires substantial efforts and various investment resources. If Vietnam has succeeded for nearly 20 years in ensuring that ethnic minorities can have *more* access to public services, and essential infrastructure, the challenge for Vietnam in the next decade will be to ensure that they can have *better* access to public services, and infrastructure quality on par with the national average.

5.2 Suggestions for future policies and programmes for the poor ethnic minorities

One central message of this study is while the living standard of the ethnic minorities have clearly improved over the last decade, it is also clear that the minorities have benefited less from the Vietnam's dramatic economic growth than the majority. Our analysis suggests that for narrowing the gap between the majority and the ethnic minority, ensuring the future economic growth more inclusive for the ethnic minority is essential. Given the evolution of the majority-minority gap over the past two decades, unless bold and radical steps taken, poverty will soon be a phenomenon of the ethnic minority. This section provides a number of suggestions for future policies and programmes to support improvements of living standards for the poor ethnic minorities. These suggestions are structured into four groups; including the proposed suggestions/changes in the approach, focus, tools, and 'other' (e.g. suggestions that cannot be structured in one of the above).

Change in the approach

One comprehensive framework to support the poverty reduction for the ethnic minorities is a necessity, through some compromises will be needed

As highlighted in section 5.1, Vietnam has a large number of policies and programs specifically designed to assist ethnic minority development. The existing policies and programmes however exhibit substantial overlaps in design and implementation, leading to the involvement of many stakeholders. In principle, these overlaps might not necessarily

lead to problems under an effective coordination among the key players (i.e. CEMA, line ministries, and donors). Unfortunately, such coordination never exist in the current context of Vietnam. Therefore, the current plethora of policies and programmes to support the poor ethnic minorities could be considered as a 'spaghetti bowl'. One obvious resultant outcome is the 'defragmentation' of resources stretched over a number of overlapped programmes/policies. This could translate into complexity of implications, which will need further consideration for meaningful inferences. At this stage, it is plausible to argue that this 'spaghetti bowl' have probably negative impacts on the effectiveness of these policies and programmes for the poor ethnic minorities. This calls for a comprehensive framework to support the poor ethnic minorities in the coming years. This framework will be necessary to provide a 'sound board' for all future poverty reduction interventions for the ethnic minorities and ensure more effective coordination among 'key players', including CEMA, MOLISA, some other line ministries, and main donors.

However, given the current defragmentation of policies and programmes managed and implemented by a variety of key players, having all coordinated in a concerted effort is near impossible given the 'political economy' of 'owning' the programmes and policies. Therefore, such framework and its associated coordination mechanism should be aimed for the period 2015-2020. From now until 2015, CEMA should play a central role in building up such framework. Advocating a comprehensive and uniform framework for ethnic minority development might lead to create or re-enforce a separate 'lane' for the ethnic minority. This treatment is certainly provide privileges for the poor ethnic minority and having such privileges might be discriminatory in nature. However, given the large and widening gap in living standards between the majority and the ethnic minorities, this approach, albeit discriminatory in nature, is appropriate.

Impacts of 'average equality' on poverty reduction is diminishing and more radical approach might be relevant

Reviewing the 'mainstream' policies and programmes (as above) suggest an the popularity of an '*average equality*' approach. This approach implies that all the beneficiaries under a given policy or programme are expected to receive the equal amount of support (i.e. the 'average equality'). If resources are sufficient to ensure that this average equality would result in adequate resources allocated for each beneficiary, there should be no problem in executing this approach. In fact, this is however not the case. Resources to support the poor ethnic minorities, through growing and significant, are under the large investment requirement of supporting the socio-economic development of the areas with ethnic minority concentration and the mountainous areas. The 'production support' component under the P135-II is a good example. Under this component, each P135-II commune is allocated an amount of approximately VND 300 million per year for all activities that are

eligible for production support (as regulated in the Circular 12/2009/TT-BNN). Considering the wide scope of the P135-II, this amount is significant in total. But that amount is clearly not sufficient to, for instance, support a medium-sized commodity production project. Similar observations could be found under other components of the P135-II and/or in most of the main policies and programmes to support the poor ethnic minorities.

Keep this 'average equality' approach is important in the future to ensure that all the poor ethnic minorities and communes will receive a reasonable support. In addition to this average support, providing extra resources and incentives for the well-performed and/or well-endowed beneficiaries will probably be desirable for at least two reasons. First, extra resources will be needed to boost cash crop production or other productive activities in those communes that are well endowed with potentials for these activities. Providing resources according to 'average equality' does not take into account the great heterogeneity among communes in their potential, while it became widely accepted that there are areas that are extremely difficult for any sustainable poverty reduction interventions.

In addition, incentives for better-performed will be needed to provide a 'push' for the beneficiaries of the future policies and programmes to compete for more resources, while an average level of support is still secured. In fact, these incentives are almost absent in most of the 'mainstream' policies and programmes, while variety of incentives are actually in places under (mainly) small or medium-scaled projects supported by donors and NGOs. In the absence of incentives to reward good performers, there has been recently a concern that some beneficiaries tend to 'passively' over-rely on the support without adequate efforts. Having these incentives available for the beneficiaries in the future policies and programmes should be considered in order to both (i) encourage efforts of the poor households and communes; (ii) make extra resources available for the well-performed beneficiaries.

It is important to note that the move toward incentives and extra resources will not necessarily result in problems as the 'average equality' approach is still in the place to ensure that all beneficiaries will have access to a significant level of support. Having extra resources and incentives is a way to facilitate more efficient use of scare resources for the poor ethnic minorities. In this regard, the resultant improvements are likely to be pro-poor in the sense that all beneficiaries will be better-off, while the most capable and innovative ones will have more tools to pursue sustainable improvements in their living standards. This (quite) radical change in approach does not necessarily require a significant restructuring of the current (or future) policies and programmes. Instead, these policies and programmes should be implemented as usual. In addition to this 'business as usual' part, there should an additional (or reserved) fund to be allocated for 'innovative cases' within

the same set of activities. There are a number of activities that could be classified as 'innovative cases', including, for instance, commodity production project, non-farm business proposals, cultural reservation and promotion with linkages to tourism. In order to govern this additional part, transparency and simplicity in the allocation of extra resources are crucially important.

One-size-fit-all approach revealed its limitations, suggesting the role for a more ethnically responsive approach to poverty reduction for the poor ethnic minorities

As highlighted earlier in this chapter, with exception of some support policies for ethnic minority groups with very small population, 'one-size-fit-all' approach is observed in the system of poverty reduction programmes and policies. Very few interventions have been carried out with explicit awareness of differences amongst ethnic minority groups (except some interventions on training, public capacity building and communications which are delivered in different ethnic languages). This approach might be appropriate over the past two decades given the priority is to reduce poverty as fast as possible. However, after 20 years of implementing many poverty reduction programmes, this approach has reached its limitations and exposed to certain shortcommings. This is likely to be the time to switch to a new approach which can ensure the "sensitivity" of interventions to own characteristics of individual ethnic minority groups.

Languages, practices and habits, spiritual and religous values and belief have certainly impacts on awareness and behaviors of individuals as well as community. Given cultural differences across different ethnic minority groups, it can be foreseen that with same intervention, there's difference in participation and beneficiaries between ethnic minority gruops. One poverty reduction intervention that is considered to be 'good' for the Mông might not be necessary suitable for Dao or Pà Thẻn (even these groups are classified in the same Mông-Dao language), and might even not suitable for Cơ Tư, Hre, and Bana in the Central Highlands. Do cultural differences lead to differences amongst ethnic minorities in benefiting from poverty reduction interventions? The knowledge of how culture impacts on household life, is very limited. Researches on ethology is largely focused on cultural, anthopological of ethnical aspects without adequate attention on their impacts on economic factors such as income, employment, or other activities to benefit from economic growth. While several researches on poverty reduction in Vietnam do not shed light on cultural aspects. In this context, there is apparently a need for further inter-discipline researches on relationship between cultural features of ethnic minority groups and their economic life.

Given this, the future policies and programmes for the poor ethnic minorities should be designed in order to ensure that its approach is more ethnically sensitive. The fact that different ethnic minorities often reside in the same locations could be an obstable for this

approach,but this does not necessarily mean that the 'one-size-fit-all' approach should be used. At the central level, it is very difficult to ensure the sensitivity beacuse it will make the designing of future policies become more complicated. However, this sensitivity could be realized if there is an explicit and well-enforced principle in planing and implementing activities.

In addition, this 'ethnic responsiveness' component will be secured by promoting further the participatory approach and stronger decentralization in the implementation of future policies and programmes. The participatory approach is stressed and implemented under the P135-II as a key principle in planning and implementing the activities of the P135-II. The implementation of the participatory approach has ensured that people can have their voices considered in selecting investment priorities, and participate in implementing and monitoring investment decisions. This participatory approach needs to be further enhanced in the future policies and programmes for the poor ethnic minorities. In addition, it needs to be expanded and/or improved in order to ensure that investment priority decisions are made basing on the essential needs of ethnic minorities.

Decentralizing to communes in implementation of programme interventions is another approach for the P135-II, which should be retained and strengthened in the future policies and programmes. Especially, then one-size-fit-all approach is no longer suitable, decentralization to communes is a necessity to ensure that interventions can be carried out in accordance with specific conditions and characteristics of ethnic minority group in the locality. If provinces or districts are allowed to use the resources available from future policies and programmes in accordance with their own experiences and arrangements, their specific interventions are more likely to be ethnically sensitive. Therefore, it is important that 'ethnic sensitivity approach' should be considered as a fundamental principle in designing the future policies and programmes for the poor ethnic minorities.

Change in the focus

Tackling the 'differences in returns'

One central part of our analysis suggests two major sources of poverty among ethnic minorities. One concerns differences in 'characteristics' or 'endowment' of ethnic minorities; the other relates to differences in 'returns' to these characteristics. This result is also reported by the previous studies using the data available from the V(H)LSSs in attempts to explain the widening gap between the majority and the ethnic minority. In these studies, "differences in characteristics" (including demographic characteristics, education, landholding, household level access to infrastructures and public services) account for less than a half of the total gap, the remaining is attributed to "differences in returns to these characteristics". These econometric evidence is consistent and robust

across different studies. In our study, as we have examined the income gap between the groups of ethnic groups residing in the extremely difficult communes, the significance of differences in characteristics are thus partially mitigated. As a result, these differences accounted for less than one third of the total income gap between the majority and the ethnic minority as a broad group or the disaggregate ethnic groups.

Given these sources of the widening gap in living standards between the majority and the ethnic minority, the current focus of policies and programmes to support economic development of the ethnic minority is placed on narrowing the differences in characteristics, especially in providing access to public services, basic infrastructure facilities, key household assets (e.g. housing, land), and in some cases essential goods (e.g. foods, fuel). The results in this paper suggest that the geographically targeted interventions combined with the programmes to improve ethnic minority endowments that have been implemented to date have not able to counteract the rising differentials in treatment experienced by the ethnic minorities. More importantly, we postulate that these differences in returns might exacerbate over time as markets tend to value human capital and other (household or community assets) more appropriately.[23] The time may therefore be apposite for the Government, donors and NGOs to re-appraise the policies and programmes they have designed to assist the ethnic minorities and, in particular, to recognize that interventions designed to reduce poverty and inequality also need to tackle the unequal treatment received by the ethnic minorities.

Tackling differences in returns is however a complicated task. In most developing and industrialised countries, ethnic minority and indigenous groups are poorer than the majority population across several dimensions. According to IDS-CAF-DfID (2009), there are two broad sets of policies have been used to narrow the differences in returns that are experienced by these ethnic minority or indigenous groups in other countries.

First, Equal Opportunity Legislation, which aims to prevent people with equivalent qualifications and experience from receiving lower wages, less access to jobs or government services on grounds of their ethnicity or gender, religion or sexual orientation. Following the 1959 revolution in Cuba, for example, equal opportunity legislation was enacted alongside broader economic and social policies, which had virtually eliminated the black-white gap in living standards by the 1980s. More recently, Ecuador's 1998 constitution has guaranteed indigenous people communal land rights, the right to education in indigenous languages, and to participate in natural resource use decisions. Despite the prevalence of equal opportunity legislation in these and other developing and industrialised

[23] For instance, Pham and Reilly (2008) found negative or low returns to education in the market of wage employment at the early of the 1990s. But human capital was found better valued as Vietnam transformed toward a market-oriented economy. They argued this is because the market valued human capital more correctly. This was also observed in other former socialist countries during the transition.

countries, numerous studies show that gaps in wages and living standards are still prevalent.

Second, Affirmative Action programs, which give preferential treatment to members of disadvantaged groups. For example in India, since 1950 a percentage of higher education places, government jobs and some parliamentary seats are reserved for members of the scheduled castes and tribes. Similarly, Malaysia's New Economic Policy of 1971 set targets for native Malay or *bumiputera* ownership of companies and their employment in different sectors. Affirmative action programs, which have also been used in South Africa and the United States, are controversial and can be criticised for helping already relatively better-off members of ethnic groups, generating resentment among other groups, and undermining advancement based purely on merit.

International experience also suggests that pursing coordinated and integrated actions across a number of sectors is necessary to reverse ethnic minority disadvantage. Advocacy organisations, forums and NGOs run for and by indigenous minority groups have been important in enforcing legislation and breaking down cultural and attitudinal barriers among majority groups. For example, in Bangladesh, Indonesia, the Philippines and Thailand, indigenous organisations have given their minorities groups with greater voice and provided a way to counter the 'negative stereotyping' of such groups. Indigenous organisations can enhance both the endowments and the returns which minority groups receive.

Continuing support for improving 'quality' of "characteristics".

The above do not necessarily imply less support needed to improve "characteristics". The analysis in this study suggests that there are considerable gaps between access to public services and infrastructures of the households residing in the extremely difficult communes and the rest of rural Vietnam. Therefore, continuing support to ensure better access for the households, especially ethnic minority-headed households is still necessary. In this regards, the Government and donors have achieved important improvements.

However, our experiences in the areas of ethnic minority development suggests that in addition to 'providing access', the focus of future programs should be placed to improve 'quality' of these access. As noted in Chapter 4 of the current study, the differences in quality, which are unobserved and thus cannot be controlled for in our analysis, could be an important part of the unequal treatment component of the total income gap across different ethnic groups. Therefore, improving the 'quality' of access to education, healthcare, production support services, and the quality of infrastructure facilities should also be a priority. For instance, quality of schools and teaching in minority communities need to be upgraded rather than new built and similarly to healthcare services. In some

areas, new inter-village or inter-commune car road to villages need to be built, but it is probably not as important as upgrading the current road system to improve accessibility, especially under heavy rain.

In this regard, it is important to note that access to infrastructures and public services have been significantly improved by numerous programs but repair and maintenance of these facilities are in very poor conditions, at least in most of the P135-II communes (Pham *et al.* 2009) or in the communes under the Northern Mountain Poverty Reduction Project (World Bank, 2007). This poor repair and maintenance has been discussed at times but we experienced little improvements to date. Future policy intervention should take this into account when prioritizing investment. As emphasized earlier, this could be very expensive given the ethnic minorities remain overwhelmingly upland residents.

Changes in the tools

Conditional cash transfer should be a piloted before popularizing to the future policies and programmes for the poor ethnic minorities

Following the success of conditional cash transfer projects (CCTs) like PROGRESA[24], which delivered transfers to poor families in rural Mexico conditional upon schooling or regular healthcare visits, many developing countries have implemented similar programs in the hopes of increasing family income and stimulating demand for social services. In most of the cases, it has been seen that the CCTs worked effectively in ensuring the responsible usages of support for accessing to public services in particular and poverty reduction support in general. Countries have been adopting or considering adoption of CCT programs at a prodigious rate. Virtually every country in Latin America has such a program. Elsewhere, there are large-scale programs in Bangladesh, Indonesia, and Turkey, and pilot programs in Cambodia, Malawi, Morocco, Pakistan, and South Africa, among others. Interest in programs that seek to use cash to incentivize household investments in child schooling has spread from developing to developed countries - most recently to programs in New York City and Washington, DC.

Literature on CCT evaluation has noted significant impacts of this mechanisms upon schooling, health, infant mortality, child labour, and poverty reduction. Transfers generally have been well targeted to poor households, have raised consumption levels, and have reduced poverty—by a substantial amount in some countries. In some cases, CCT programs often have provided an entry point to reforming badly targeted subsidies and

[24] This is a big programme of Mexico, having an annual budget of US$2.6 billion (equivalent to about 0.5% of the country's GDP). PROGRESA was introduced first under the Rural Program 1997-2000 to cover about 2.6 million families from 50,000 villages (accounting for nearly 40% of the rural Mexico). Based on the success of the PROGRESA, the Urban Expansion 2001-2003 has added about two million families under the coverage of the Program.

upgrading the quality of safety nets (see Fiszbein *et al.* 2010 for a review). There are cases of failures observed in the areas where the beneficiaries do not have adequate access to public services, making it difficult for them to fulfil the 'conditions' applied under such CCT schemes. Given the success, albeit at early stages, the CCT mechanism has been wide considered as one of the most significant development in social policies in recent years.

In the context of Vietnam, CCT is a new concept and has not been used within the 'mainstream' poverty reduction policies and programmes. To date, there has had no formal explanation why Vietnam has been an 'outsider' of the CCT wave in the developing world. The starting point of widespread poverty (i.e. more than 58 percent of the population lived under the poverty line) in the early 1990s lends a likely explanation. In addition, the focus of investment on basic infrastructures and public services might have driven attention away from supporting directly to households and/or individuals. While the former is largely location-based in nature, the latter is more household-based. Given the predominance of location-based support and the high incidence of poverty, there has been little room for applying the CCT in most of the past poverty reduction interventions.

However, after about two decades of poverty reduction, there could now be a room for applying CCT schemes. This suggestion is based on a number of reasons. First, significant improvements in poverty reduction have been secured, making access to public services increasingly available, even in the remote areas. It is therefore feasible now to exercise some CCT schemes to stimulate the effective usage of public services and other support. Second, applying CCT could provide a 'push' for the poor ethnic minorities in using public services, evidence noted in chapter 2 show that there are gaps between the majority and the ethnic minorities in the level of access to public services in the extremely difficult communes – where the availability of these services is the same regardless the ethnic groups. This could be taken to suggest that encouraging the poor ethnic minorities to utilize the public services and basic infrastructures made available is also an important issue. In this regard, applying CCT scheme could be a solution to promote the usage of public services and other supports by the ethnic minorities.

As the CCT mechanism is new to Vietnam, it might be useful to experiment some CCT schemes in the first instance in order to raise the awareness and thus acceptance of the public (including some key stakeholders) to this concept. One potential area for application of the pilot CCT could be in the next stage of the P135 (for the period 2011-2015). As this is the experiment to raise awareness on the advantages of this CCT mechanism, a well-defined planed with structured technical assistance will be most useful.

Block grants should be also experimented before popularizing to the future policies and programmes for the poor ethnic minorities

Block grant is a special mechanism applied widely in the developing world for poverty reduction intervention. The block grant mechanism is similar to the CCT as described above. Perhaps, the most important departure of the block grant from the CCT mechanism is the target of these two schemes. While the former is more community based, the latter is mainly on the individual or household based. The essential of this block grant mechanism is to create an grant that is exclusively for certain community, within the defied lines of activities and rules, the community has the autonomy to decide how to spend that grant without asking the sponsor(s) for permission. The spirit of having this block grant is to facilitate the pro-active usage of the grant by the community. This could serve as a way to promote the participation of local authorities, civil society, and inhabitants in planning and implementing the activities within the grant available. This is expected to ensure that the interventions will reflect the needs of the community without any outside influences.

Similar to the CCT, the block grant mechanism has recently become popular in the developing world but remains a new concept for Vietnam. There are currently some experiments by donors-funded projects such as the World Bank Northern Mountain Poverty Reduction Project (NMPRP-2), where block grant is introduced to the targeted communes in the six poor provinces in the Northern Uplands. The AusAid's Implementation Support Programme (ISP) for the P135-II in Quang Ngai also experimented the block grant mechanism under the Commune Development Fund (CDF) facility. In both of these two examples, the grant is given for communes under a well-defined set of expenditure lines and rules. Active participation of the authorities, organizations, and people in selecting and managing the implementation of the activities is emphasized under both the two schemes. However, as these mechanisms are at the beginning stages, it is too early to evaluate how these block grants will exert impacts in the targeted areas.

Under this context, the block grant mechanism should be further experimented before popularizing in the future policies and programmes for the poor ethnic minorities. At this stage, it is however plausible to postulate that the introduction of this scheme is in line with the decentralization approach adopted in the majority of poverty reduction interventions in Vietnam. Exercising this mechanism will certainly reinforce a more active role of local stakeholders in directing the support to, what they considered, the best for the local context and needs.

Other suggestions

Better understanding of poverty amongst ethnic minorities.

The existing database on ethnic minorities is quite patchy. Some datasets, such as VHLSSs, allows disaggregation of ethnic minorities into small groups or even individual

ethnic groups but observations are not sufficient for each group to infer any reliable estimates. In some others, which are the cases of most of other surveys rather than the VHLSSs, only some large ethnic groups could be identified. As a consequence, the current understanding on ethnic minorities is largely based on a majority-minority dichotomy. This dichotomy potentially conceals important differences between individual ethnic groups. Poor classification and understanding of ethnic minorities can lead to inaccurate targeting of resources, and more accurate local data can help identify the most vulnerable minorities. In this regard, making the BLS available to the public could be helpful in having the research community involved in producing further research on the poor ethnic minorities. In addition, making usage of the recent Population and Housing Census 2009 to depict how the ethnic minority groups evolve since the previous Census 1999 will be informative in informing any structural changes in demography, allocation, and other important characteristics of the ethnic minorities.

Better understanding of poverty amongst the ethnic minority is apparently needed. As mentioned earlier, getting insights on the drivers of the differences in returns to characteristics, which explain most of the gap in living condition between different ethnic groups is challenging. Given the Vietnamese context, important questions need more satisfactory explanation such as are there forms of discrimination against the ethnic minority in practices (not by the Constitution, laws, policies, or programmes)? If these discriminatory forms exist, how these factors affect living standards of the ethnic minority? It is also very important to note that better understanding of cultural differences is needed to clear misperception and stereotyping of ethnic minorities. There are significant cultural norms in minority communities that often go against trends in the new market oriented economy of Vietnam. These cultural norms vary by village and by ethnic groups, making one-size-fits all development interventions difficult. Responding to these cultural differences is not easy but will be required for more effective policy interventions in the future.

Technical assistance for future policies and programmes for the poor ethnic minorities should be more systematic.

It has been clear that poverty reduction will be more difficult than it was over the past two decade for many different reasons. Most significantly, poverty is now focused on ‘pockets’ of poverty and become more ‘stubborn’ or ‘resistant’ to poverty reduction interventions. In addition, as argued in this report, changes will be desirable in both the approaches, the focuses, and the tools of future policies and programmes to tackle poverty. Therefore, there is a need for technical assistance associated with the design and implementation of these policies/programmes.

One priority area for technical assistance is to ensure that implementation provisions (such as Manual on Programme guidelines, training documents, etc.) are ready in the early stages of the future policies and programmes for the poor ethnic minorities. The case of the P135-II lends a background for advocating this priority. In fact, there is a significant lead time between the start of the P135-II and the issuance of relevant guidelines and manuals. For instance, the inter-ministerial Circular No. 1 guiding implementation of P135-II was issued in Sept 2008; Bidding Manual in Dec 2008; the Circular No.12 of MARD for the P135-II's Production Support component in Mar 2009. This delay has certainly translated in difficulties, especially for the local authorities, to implement the P135-II support effectively.

While arguing for technical assistance, this report also calls for more systematic provision of technical support. In fact, technical assistance under the P135-II and other poverty reduction programmes have been carried out in unsystematic (or even ad-hoc) manner from a variety of consultants, either individual or institutional, when appropriate. This allows to take advantage of various knowledge and experience from advisors but reduces efficiency of technical assistance because advisors have different levels of knowledge on the programme, work quality and different viewpoints. Therefore, more systematic provision of technical assistance, probably in a 'drawn-down' basis, should be considered (especially by the donors) when directing the technical support for the future policies and programmes for the poor ethnic minorities.

Conclusions

This report examines the poverty of the ethnic minorities by exploring the baseline survey data of the 2nd Stage of the Programme 135 with references to the commonly used V(H)LSSs. Taking advantage of having an arguably the most comprehensive dataset on the household living standards of the ethnic minorities, this study offers some novel findings to our current understanding of the poor ethnic minorities. The key messages of this report could be summarized as follows:

First, through the Government and donors have brought into the extremely difficult communes several policies and programmes for poverty reduction, there is a long way ahead. Accounting for around 14.5 percent of the population, the ethnic minority now constitute more than a half of the poor population in 2008. The share of the poor ethnic minorities in the total poor has steadily increased from 18 percent in the early 1990s up to 56 percent recently. Unless significant improvements in the living standards for the poor ethnic minorities are achieved, poverty will be a particularly a phenomenon of ethnic minorities in the future.

Second, there has been significant improvements in the availability of basic infrastructure and public services for the ethnic minorities in the extremely difficult communes. However, there is a concern on how the ethnic minorities have actually benefited from these improvements. The findings suggest that facing the same level of availability of infrastructures and public services, the ethnic minorities tend to utilize less than the majority from these facilities/services. Having some advantages over the majority in terms of landholding (as the most important physical assets of the poor), the ethnic minorities have not been able to benefit from this advantage and tend to focus on low productivity livelihood activities.

Third, in attempts to shed lights on the driven forces underlying persistent poverty of the ethnic minorities, it was reported that differences in characteristics could explain as much as one third of the income gap between the majority and all other ethnic minorities groups. Importantly, it implies that poverty of the ethnic minorities cannot be solved simply by investment in infrastructures and public services. This suggests an awaking alarm for the focus on provision of basic infrastructure and public services emphasized in most of the current policies and programmes for ethnic minorities.

Fourth, the current policies and programmes have not fully addressed the multi facet characteristics of poverty among ethnic minorities. The ‘one-size-fit-all’ and ‘average equality’ approach, as shown in this report, are not sufficient to achieve the target of poverty reduction for the ethnic minorities. It is about the time to call for changes in approaches, focuses, and tools of the policies and programmes for the poor ethnic minorities. It should be noted that as poverty in this difficult area is stubbornly high, future

efforts for poverty reduction for the ethnic minorities will be more expensive compared to poverty reduction in the rural areas or to what these were in the past two decades.

Fifth, among the policy suggestions drawn in this study, we strongly advocated an comprehensive framework to support the poor ethnic minorities. In that framework, creating incentives to reward the potential and/or well-performed beneficiaries is important for allocation of resources within the future policies and programmes for the poor ethnic minorities. It is also argued that future interventions need to be more ethnically responsive to distinguished characteristics of individual ethnic groups. This could be achieved by further decentralization and having this as a central principle of the future policies and programmes for the poor ethnic minorities.

The above messages should be interpreted in the context of this study, which is largely based on the baseline survey on the extremely difficult communes covered by the P135. Through it could be argued that most of the poor ethnic minorities residing in these communes, there could be some ethnic groups or community that are not well captured in this context. In addition, as the data was collected about three years ago, there could be some additional improvements in living standards of the ethnic minorities in the communes under consideration, especially in terms of access to basic infrastructures and public services. In addition, it is not possible, due mainly to data availability, within the current study to evaluate how the recent economic shocks (e.g. the economic crisis, fluctuations in international prices of food and energy).

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Appendix

Annex 1. The Baseline Study

As part of the impact evaluation package, the BLS for the P135-II was implemented by the General Statistical Office (GSO) in 2007, under the authority of the Committee for Ethnic Minority Affairs (CEMA) and with technical assistance from UNDP. This BLS is a first step of the two-stage evaluation process of the P135-II. The ultimate objective of this BLS is to establish the initial characteristics of communes and households before the onset of the P135-II. It should be noted that the Vietnam Household Living Standards Survey (VHLSS) 2006 was considered for this objective as an alternative to the BLS. However, the content of the VHLSS 2006 does not cover several aspects necessary for evaluating the P135-II. In addition, the VHLSS 2006 only provides information on the 202 P135-II communes (i.e. equivalent to 12% of the total P135-II coverage) (GSO, 2008). In the next stage, the characteristics (concerning the outcome variables) need to be compared before and after the Program. This will be the focus of a follow-up survey that is planned for 2010. Since changes before or after the program cannot by themselves reveal the potential impacts of the Program (as the outcomes observed may be due to other non-program related factors), there is a need to select a "control" group. The impact of the program can thus be revealed by the "differences in differences" between the "treated" and the "control" group before and after the program.

The treatment group of the BLS consisted of 266 (treated) communes, which were randomly drawn from the list of 1,632 targeted communes of the P135-II, which was selected out of 2,359 communes that have been supported by the P135-I during the period 1998-2005. This selection also ensures that the treated communes selected spread over all the provinces that are included in the P135-II. This selection is made on the basis of the commune's characteristics, including poverty rate, commune infrastructure situation such as access to road, school, health center, electricity and market. In order to construct the control group, it is necessary to find communes which are as similar to the P135-II communes as possible. In order to do it, the 2,359 P135-I communes were employed. A logistic regression model was adopted to estimate the probability of being selected from these 2,359 P135-I communes into the P135-II. The logistic regression equation models the probability of being selected to the P135-II on a set of the commune characteristics that capture all criteria used by CEMA to select the targeted communes into P135-II such as poverty rates, access to road, electricity, school, and health centre (GSO, 2008). A sub-list of the 724 communes that 'graduated' from the P135-I was then obtained with relevant selection probabilities. From this list, communes with the selection probabilities higher than the average were identified as potential communes for the control group. Based on these, 134 communes for the control group were selected randomly. Given this, the 400 communes surveyed in the BLS could be considered as amongst the extremely difficult communes in Vietnam.

For each commune, one village was randomly selected from the list of all villages. This selection method was applied for both control and treatment groups. In each selected village, 15 households

were selected for interview. The list of all households in the selected villages, drawn from the Agriculture Census 2006, was provided by the GSO. The simple random method was also applied to select the household at this stage. Two steps were involved. Firstly, 20 households were randomly selected from the list of all households in each selected village and. Secondly, 15 households out of 20 households were randomly selected from the official list of households for the BLS. The remaining five households were used as the reserve for replacement. This process results in a sample of 6,000 households for the BLS. As households were randomly from the 400 communes that were not randomly selected, sampling weights were used to obtained unbiased results reported in this study.

The BLS had a household module and a commune module. The household questionnaire mirrored that of the VHLSS 2006 (see Nguyen and Phung, 2007 for the details of the VHLSS) with two substantial modifications. First, the (sub)sections on expenditures, assets, savings, housing used in the VHLSS were dropped. The content of the remaining sections were simplified to exclude questions that were not relevant to the Program. Second, new sections/questions were added on the participation of the P135-II households in the projects supported by the Program. Similar to the household questionnaire, the commune questionnaire also mirrored that of the VHLSS 2006 with certain modifications. The VHLSS's sections on general information, infrastructure conditions, access to public services (i.e. schools, healthcare services) were simplified. New sections on the projects carried out over the past 12 months at communes, land endowments, nonfarm income-generating opportunities were added to the commune questionnaire (GSO, 2008). These two modules were then used to collect the information from the households in the sample during a period going from 4th September to 25th November 2007.

Pham *et al* (2009) was the first to explore this dataset in order to inform the baseline performance indicators for the P135-II. Their analysis suggests that this BLS is of high quality and could be used to provide a snapshot on the multifaceted poverty of the ethnic minorities. Our thorough investigation of the dataset shows that this is a dataset of high quality. Particularly, this is probably the most comprehensive dataset that focuses on ethnic minorities available up to date.

Annex 2. Dimensions of Analysis

Throughout the report we have analyzed living standards of the households residing in the extremely difficult communes from different angles. In addition to average indicators which statistically represent the whole population in the areas we also provide analysis according to different dimensions identified by ethnic groups, spatial regions, gender of the household head, and languages used in the daily life.

At household level, we divide the households into 14 groups of ethnicity. Our classification is based on two criteria: the similarities of different ethnic groups and the number of observations to ensure the credibility of statistical inferences. The 14 ethnic groups include the majority (Kinh people are the majority living all over the country while Hoa people are minority living mainly in Ho Chi Minh City and some provinces in Mekong River Delta), Tày, Thái, Mường, Nùng, Mông, Dao and Other minorities in Northern Uplands, Bana, H're, Cơ Tu, and Other minorities in Central Highlands, Khmer and Others. With this classification in the BLS sample, the smallest group (Bana) contains 90 observations. Having the Hoa in the majority group could be controversial. However, the Hoa (i.e. Chinese) accounted for less than 0.7 percent of the total sample (i.e. 41 households), therefore merging the Hoa to the majority group is not a problem to treat the Kinh in our analysis. Having the majority together in one group will facilitate comparison with the previous studies on poverty in Vietnam. The number of observations allows us to draw statistical inferences with high credibility. Table A1 below summarizes the number of observations for each ethnic group available in the baseline survey.

Table A1 Distribution of household observations among 14 ethnic groups

Ethnic group	Observations	Percent
Majority	1,282	21.49
Tày	753	12.62
Thái	584	9.79
Mường	498	8.35
Nùng	292	4.90
Mông	808	13.55
Dao	578	9.69
Others in Northern Uplands	211	3.54
Bana	90	1.51
H're	120	2.01
Cơ Tu	90	1.51
Others in Central Highlands	309	5.18
Khmer	133	2.23
Others	217	3.64

Source: authors' calculation from the BLS

We also draw statistical inferences for groups of households identified by geographical regions. Taking into account the geographical characteristics of regions in Vietnam, it has been a

convention to divide the country into the eight spatial regions, including: Red River Delta, North East, North West, North Central Coast, South Central Coast, Central Highlands, South East, and Mekong River Delta. It is worth noting that, the regions not only differ in geographical aspects but they are also associated with locations of residence of ethnicities. For instance, Tày people mostly concentrate in Lang Son, Cao Bang, Tuyen Quang, Ha Giang, Bac Kan, and Thai Nguyen provinces of North East region; Khơ me people, however, live mostly in Soc Trang, Tra Vinh, Bac Lieu, Ca Mau and Kien Giang provinces of Mekong River Delta region. Using the eight regions in our analysis has one pitfall as the Red River Delta has only 75 observations (i.e. 1.3 percent of the total sample). However, merging this region into any other regions is not plausible due to its own geographical characteristics. Therefore, we adopted the classification of these eight regions but will not focus on the indicators calculated for the Red River Delta in our analysis.

As the main objective of this study is to provide insights on living standards of the ethnic minority at the most disaggregate ethnicity classification, we have tried to identify main ethnic minority groups in each regions. It is believed that the Tay, Thai, Muong, Nung residing in the Northern Uplands could be different from those Tay, Thai, Muong, Nung who migrated to the Central Highlands during the 1980s and 1990s. This tabulation using both regional and ethnicity dimensions might provide us some further insights on within-group differences. However, such classification results in very small sizes for sub-samples of ethnic groups in each regions (with exception of the North West and North Central Coast) and thus not employed in this analysis.

In addition, the baseline survey allows us to categorize households into three groups according to the language they use in everyday life. The three groups are: (i) those who speak only their ethnic language or mostly ethnic language, (ii) those who speak both (mixed) ethnic language and the Kinh language, and (iii) only Kinh language or with little ethnic language. There are also 188 observations who speak only the Kinh language. But as this group accounted for nearly three percent of the total sample, we put this group into the category (iii) as above.

For the analyses at the commune level, we calculate the averages using the whole commune sample and the eight regions. In addition, we create an 'ethnicity' indicator at commune level to keep our focus on the ethnicity dimension. Using the household-level data, for each commune in the baseline survey we identify the ethnicity with the largest population in the community. Then, the communes are divide into seven groups of most populated ethnicity, including the majority, Tày, Thái, Mường, Nùng, Mông, Dao and Others. Once again, the ethnic classification follows the two criteria we discussed above. As we see in Table A2 which shows the number of communes in each ethnic group, Nùng group has smallest size with 17 communes. Other groups have sizes big enough for reliable statistical inferences.

Table A2. Distribution of commune observations among seven ethnic groups

Ethnic group	Observations	Percent
Majority	78	19.50
Tày	54	13.50
Thái	38	9.50

Mường	36	9.00
Nùng	17	4.25
H'Mông	55	13.75
Dao	39	9.75
Others	83	20.75

Source: authors' calculation from the BLS

Regarding the spatial dimension at the commune-level analysis, we added Red River Delta and Southeast together as these two regions accounted for 5 and 12 observations respectively. This grouping is to avoid potential errors in statistical inferences due to very small sample sizes. However, this does not make practical sense to merge these two regions. Therefore, we merged the two regions purely for technical purpose, the commune-level analysis will not be based on the data calculated for this group.

Finally, we analyze the commune-level indicators at the third dimension identified by the geographical characteristics of the communes. At this dimension, 400 communes are divided into 3 groups including: (i) communes in low land areas, (ii) communes in low mountains, and (iii) communes in high mountain areas. In our sample, there is one costal commune and two midland communes and these are merged into the first group of communes in the low land areas.

Annex 3. The Blinder-Oaxaca Decomposition Methodology

This study adopts the Blinder-Oaxaca decomposition approach to investigate empirically the income gap across different ethnic groups. In the first instance, the essence of this approach applied for decomposing the income gap using the 'conventional' majority-minority dichotomous will be outlined. Separate equations describing the determination of log per capita household income are specified for the majority (majority) and minority groups as follows:

$$\mathbf{y}_m = \mathbf{x}_m'\boldsymbol{\beta}_m + \mathbf{u}_m \quad [1]$$

$$\mathbf{y}_e = \mathbf{x}_e'\boldsymbol{\beta}_e + \mathbf{u}_e \quad [2]$$

where $\mathbf{y}_j$ denotes the per capita household income expressed in natural logarithms for the j^{th} ethnic group (where j = m or e denoting the majority and minority groups respectively), $\mathbf{x}_j$ is a $(k \times n)$ matrix of household characteristics (e.g., household structure, education of members, household landholding) and community characteristics (e.g., infrastructure conditions); $\boldsymbol{\beta}$ is a $(k \times 1)$ vector of unknown parameters capturing the effect of the relevant covariates on log per capita expenditure; $\mathbf{u}_j$ is a $(n \times 1)$ vector of random error terms for which the standard assumptions apply for estimation by Ordinary Least Squares (OLS). [25]

Using the Blinder-Oaxaca decomposition approach (Blinder, 1973; Oaxaca, 1973), the estimated mean ethnic difference in log per capita household expenditure can be expressed as:

$$\bar{\mathbf{y}}_m - \bar{\mathbf{y}}_e = (\bar{\mathbf{x}}_m - \bar{\mathbf{x}}_e)'\hat{\boldsymbol{\beta}}_m + \bar{\mathbf{x}}_e'(\hat{\boldsymbol{\beta}}_m - \hat{\boldsymbol{\beta}}_e) \quad [3]$$

where the 'bar' denotes mean values and the 'hat' denotes OLS coefficient estimates, and the subscripts m and e denote the majority and ethnic minority groups. This allows the overall average differential in household expenditure between the two ethnic groups to be decomposed into a part attributable to differences in characteristics (known as the 'explained' or 'endowment' component) and a part attributable to differences in the estimated returns to characteristics between majority and minority households (known as the ' 'treatment', 'residual' or 'unexplained' component). The final part of expression [3] is sometimes taken to reflect the degree of unequal treatment or discrimination against ethnic minorities. This approach assumes that in the absence of unequal treatment the majority group's coefficient structure prevails.[26] Given that these components are (log) linear in the estimated parameters, their sampling variances can be computed with ease.

The framework described from [1] to [3] above will then be used to decompose the welfare gap between each of the thirteen ethnic groups (see Annex 2 for details) and the majority group. By this decomposition, this study will provide insights on the ethnic welfare gap at the most disaggregate level possible. Instead of using the subscript ***e*** for the whole population of ethnic minorities, each

[25] In the mean regression analysis, the effects of clustering and stratification are taken into account in the estimation of the per capita log expenditure equation's coefficient standard errors through exploiting the individual survey's sample design features.

[26] The minority coefficient structure could be also assumed to prevail in the absence of unequal treatment. This can yield numerically different values for the component parts compared to expression [3] due to a conventional index-number problem.

of the ten ethnic groups will be in turn investigated in comparison with the majority group using the above estimation framework.

As suggested by the literature, the set of regressors used in the decomposition framework above consist of various household and community characteristics. At the household level, demographic factors (i.e. household size, proportion of children aged from zero to six years old, proportion of children aged from seven to 16, proportion of male adults, proportion of female adults, types of households (i.e. nuclear family or different types of extended families)) qualifications of the most educated household members, and household landholdings (annual cropland, perennial land, and forestry) are specified. At the commune level, access to key infrastructure facilities (road to commune, road to village, public transportation, electricity grid, post office, cultural house, irrigation scheme, radio station) are included in the set of explanatory factors. In addition, as the extremely difficult communes have received several supports from the Government and donors, accesses to different programmes and supports, such as job creation, poverty alleviation, healthcare, culture and education, economic growth, environmental protection could have impact on household income, and thus should be included in the specification. Finally, whether the commune is the P135-II commune or not is included in the set of regressors used for our empirical analysis. A statistical summary of these variables is given in the Table A3 (see Annex 4).

Annex 3. Other Statistics

Table A3 Summary Statistics of major variables used in the income regression analysis

	K-H	EMs	Tay	Thai	Muong	Nung	H'Mong	Dao	Others in NU	Bana	H're	Co Tu	Others in CH	Khmer	Others
Log of per capita income	8.33	7.80	7.91	7.80	7.96	7.87	7.46	7.77	7.71	7.60	7.66	7.80	7.59	8.14	7.59
Household size	4.15	5.02	4.51	5.33	4.30	4.68	6.04	5.34	5.35	5.55	4.38	5.48	5.55	4.25	5.21
Proportion of children aged from 6 to 15	0.18	0.23	0.22	0.24	0.18	0.22	0.27	0.26	0.29	0.21	0.19	0.24	0.27	0.21	0.21
Proportions of male adult aged from 16	0.34	0.30	0.33	0.31	0.33	0.32	0.25	0.30	0.26	0.28	0.32	0.27	0.26	0.31	0.27
Proportions of female adult aged from 16	0.38	0.33	0.35	0.33	0.37	0.35	0.27	0.31	0.29	0.28	0.37	0.30	0.29	0.36	0.28
Household type: parents and one child	0.17	0.12	0.13	0.09	0.18	0.15	0.07	0.07	0.09	0.09	0.19	0.11	0.08	0.17	0.09
Household type: parents and two child	0.27	0.23	0.29	0.21	0.28	0.20	0.13	0.22	0.22	0.21	0.21	0.14	0.18	0.30	0.19
Household type: parents and more than 2 child	0.19	0.27	0.20	0.27	0.14	0.21	0.39	0.25	0.46	0.38	0.15	0.48	0.42	0.21	0.36
Household type: three-generation	0.12	0.13	0.10	0.18	0.11	0.11	0.16	0.20	0.07	0.19	0.26	0.09	0.14	0.09	0.08
Household type: other types	0.17	0.21	0.23	0.23	0.23	0.29	0.23	0.24	0.15	0.11	0.13	0.15	0.14	0.17	0.22
Gender of household head	0.80	0.89	0.89	0.95	0.88	0.89	0.95	0.93	0.91	0.88	0.87	0.94	0.84	0.73	0.89
Most educated: primary	0.48	0.33	0.26	0.38	0.20	0.32	0.29	0.36	0.44	0.41	0.31	0.27	0.44	0.38	0.33
Most educated: lower secondary	0.24	0.27	0.37	0.28	0.43	0.33	0.18	0.26	0.18	0.11	0.27	0.44	0.20	0.16	0.19
Most educated: upper secondary	0.27	0.09	0.17	0.13	0.14	0.11	0.01	0.05	0.05	0.06	0.04	0.12	0.05	0.06	0.04
Most educated: vocational training	0.30	0.07	0.12	0.08	0.13	0.11	0.02	0.06	0.04	0.00	0.01	0.04	0.03	0.05	0.06
Annual cropland (1000m2)	0.11	7.29	3.79	7.85	4.73	5.11	12.28	8.77	13.5	11.7	6.9	7.6	7.94	4.36	7.55
Perennial land (1000m2)	0.14	1.35	1.16	1.07	2.07	2.27	0.66	2.13	0.60	0.81	4.76	0.34	3.42	0.48	0.81
Forestry land (1000m2)	0.48	9.48	13.18	11.13	7.55	12.18	6.23	25.31	22.7	0.82	5.77	2.59	0.21	0.00	1.35
Having road to commune	0.09	0.95	0.93	0.89	0.99	1.00	0.99	0.98	0.94	1.00	1.00	0.73	0.85	0.98	1.00
Having road to villages	0.65	0.68	0.68	0.67	0.94	0.72	0.48	0.67	0.68	1.00	0.77	0.66	0.81	0.53	0.93
Having public transportation	0.45	0.23	0.24	0.27	0.39	0.04	0.03	0.15	0.08	0.00	0.08	0.00	0.32	0.42	0.37
Having national electric grid	0.95	0.85	0.99	0.72	0.93	0.98	0.55	0.88	0.68	1.00	1.00	0.69	0.89	1.00	1.00
Having post office	0.27	0.90	0.97	0.90	0.89	0.92	0.80	0.94	0.91	1.00	1.00	0.54	0.87	0.97	0.81
Access to cultural house	0.26	0.21	0.20	0.44	0.25	0.10	0.10	0.19	0.49	0.17	0.04	0.20	0.34	0.02	0.05
Access to health centres	0.29	0.40	0.34	0.20	0.44	0.17	0.19	0.30	0.49	0.01	0.64	0.36	0.68	0.88	0.63

Access to small irrigation	0.08	0.63	0.65	0.64	0.54	0.58	0.48	0.71	0.63	0.51	0.78	0.79	0.57	0.79	0.66
Access to market	0.18	0.34	0.36	0.23	0.55	0.22	0.37	0.38	0.21	0.00	0.14	0.00	0.01	0.59	0.14
Having job creation project	0.42	0.18	0.27	0.13	0.05	0.04	0.13	0.10	0.02	0.00	0.48	0.33	0.11	0.39	0.18
Having poverty reduction project	0.14	0.43	0.63	0.33	0.24	0.52	0.53	0.63	0.52	0.51	0.83	0.21	0.38	0.09	0.51
Having economic development project	0.28	0.18	0.29	0.11	0.32	0.08	0.15	0.16	0.03	0.17	0.28	0.24	0.27	0.08	0.25
Having cultural and education project	0.38	0.28	0.14	0.28	0.47	0.27	0.33	0.39	0.50	0.57	0.42	0.41	0.35	0.00	0.46
Having healthcare project	0.25	0.13	0.05	0.19	0.15	0.10	0.23	0.11	0.61	0.01	0.03	0.07	0.05	0.00	0.01
Having environmental project	0.21	0.27	0.23	0.11	0.32	0.28	0.23	0.31	0.23	0.72	0.60	0.28	0.22	0.45	0.25

Source: authors' calculation from the BLS

Table A4 Income regression results for the majority, the Ethnic Minority, Tay, Thai, Muong, H'mong

	majority	**EMs**	**Tay**	**Thai**	**Muong**	**H'mong**
Household size	-0.0196	-0.0774***	-0.1353***	-0.0435*	-0.0566	-0.0972***
	[0.045]	[0.012]	[0.023]	[0.025]	[0.04]	[0.011]
Proportion of children aged from 6 to 15	0.3684	0.4034***	0.3718**	0.0162	0.6814**	0.2374**
	[0.267]	[0.116]	[0.152]	[0.183]	[0.266]	[0.108]
Proportions of male adult aged from 16	0.4644**	0.917***	0.5538***	0.1226	1.0209***	0.2581
	[0.232]	[0.177]	[0.183]	[0.484]	[0.255]	[0.178]
Proportions of female adult aged from 16	0.4093	0.6935***	0.37	0.4645	0.2491	0.1885
	[0.288]	[0.171]	[0.239]	[0.374]	[0.335]	[0.157]
Household type: parents and one child	0.1249	-0.0107	0.1249	-0.3645*	-0.3391	-0.3987***
	[0.138]	[0.111]	[0.276]	[0.25]	[0.262]	[0.128]
Household type: parents and two child	-0.1727	-0.0245	-0.1443	-0.4478*	-0.513**	-0.5043***
	[0.166]	[0.099]	[0.233]	[0.246]	[0.243]	[0.137]
Household type: parents and more than 2 child	-0.3628*	-0.1106	-0.2538	-0.5302**	-0.6275**	-0.555***
	[0.217]	[0.11]	[0.274]	[0.264]	[0.273]	[0.126]
Household type: three-generation	0.0834	-0.1548	-0.1737	-0.6506***	-0.6207**	-0.5269***
	[0.24]	[0.118]	[0.291]	[0.243]	[0.285]	[0.142]
Household type: other types	-0.1111	-0.1207	-0.1259	-0.6898***	-0.4945*	-0.4878***
	[0.156]	[0.104]	[0.265]	[0.238]	[0.26]	[0.134]
Gender of household head	-0.0357	-0.0807	0.0605	0.1709	-0.0347	0.134*
	[0.133]	[0.105]	[0.115]	[0.142]	[0.156]	[0.081]
Most educated: primary	-0.1112	0.1438***	0.2537***	0.1792*	0.0577	0.1264**
	[0.14]	[0.042]	[0.072]	[0.112]	[0.148]	[0.049]
Most educated: lower secondary	0.022	0.2398***	0.3353***	0.309***	0.2393**	0.1765***
	[0.126]	[0.047]	[0.083]	[0.094]	[0.1]	[0.063]
Most educated: upper secondary	0.1932	0.4487***	0.6437***	0.5497***	0.2875***	0.2999**
	[0.15]	[0.073]	[0.107]	[0.139]	[0.103]	[0.125]

Most educated: vocational training	0.7378***	0.8295***	0.9368***	1.0034***	0.9681***	0.553***
	[0.162]	[0.124]	[0.129]	[0.155]	[0.148]	[0.122]
Annual cropland (1000m2)	0.0134***	0.0168***	0.0353***	0.0167***	0.0121*	0.0213***
	[0.001]	[0.003]	[0.013]	[0.005]	[0.007]	[0.002]
Perennial land (1000m2)	0.0046	0.0037*	0.0017	0.0023	-0.0003	0.0012
	[0.004]	[0.002]	[0.003]	[0.004]	[0.002]	[0.002]
Forestry land (1000m2)	0.0008	0.0001	0.0017***	-0.0001	0.0023***	0.0036**
	[0.001]	[0]	[0.001]	[0]	[0.001]	[0.001]
Having road to commune	0.246*	0.0502	0.1617	0.1005	0.9029**	-0.1928
	[0.135]	[0.095]	[0.137]	[0.19]	[0.442]	[0.298]
Having road to villages	-0.073	-0.0631	0.1052	0.0239	-1.1152***	-0.0557
	[0.12]	[0.065]	[0.091]	[0.11]	[0.415]	[0.057]
Having public transportation	-0.1282	0.0888*	0.1222	0.353***	0.2415***	-0.2163***
	[0.112]	[0.053]	[0.102]	[0.128]	[0.08]	[0.067]
Having national electric grid	0.2107	0.0708	0.2486	0.0506	0.0887	0.0586
	[0.285]	[0.066]	[0.219]	[0.089]	[0.156]	[0.05]
Having post office	-0.094	-0.0686	-0.2297**	-0.1904	-0.0878	-0.1681***
	[0.202]	[0.061]	[0.105]	[0.125]	[0.101]	[0.055]
Access to cultural house	0.0561	0.0387	-0.0022	0.2028*	0.2348***	0.3033***
	[0.084]	[0.061]	[0.077]	[0.11]	[0.087]	[0.079]
Access to health centres	0.0844	0.0253	-0.3234***	-0.0765	-0.1705	0.1437**
	[0.102]	[0.056]	[0.096]	[0.126]	[0.125]	[0.062]
Access to small irrigation	-0.0138	0.1055**	-0.0594	-0.0398	-0.0935	0.1758***
	[0.106]	[0.051]	[0.067]	[0.098]	[0.105]	[0.058]
Access to market	-0.0796	-0.0329	0.1596**	-0.2243**	0.1191	0.1019*
	[0.118]	[0.051]	[0.081]	[0.116]	[0.092]	[0.059]
Having job creation project	0.2635*	0.0049	-0.3577***	-0.1512	-0.7125*	0.0339
	[0.158]	[0.074]	[0.138]	[0.168]	[0.428]	[0.061]
Having poverty reduction project	-0.2016**	-0.1827***	-0.035	-0.098	-0.0126	0.0933

	[0.102]	[0.049]	[0.08]	[0.083]	[0.091]	[0.061]
Having economic development project	-0.1825*	0.0043	-0.1724*	-0.0124	-0.0498	-0.0249
	[0.105]	[0.051]	[0.09]	[0.159]	[0.07]	[0.064]
Having cultural and education project	-0.2092*	0.0787*	0.0794	0.3092***	0.1713*	0.0912**
	[0.125]	[0.046]	[0.083]	[0.114]	[0.089]	[0.045]
Having healthcare project	0.3243**	-0.0043	-0.0309	0.1926*	-0.2136	-0.0521
	[0.142]	[0.071]	[0.179]	[0.116]	[0.154]	[0.064]
Having environmental project	-0.0526	0.0712	-0.1231*	0.0054	0.23*	-0.056
	[0.093]	[0.058]	[0.074]	[0.137]	[0.121]	[0.061]
P135 communes	-0.1036	-0.1071*	-0.1021	0.0257	-0.0788	-0.1404**
	[0.089]	[0.061]	[0.096]	[0.085]	[0.072]	[0.066]
Constant	7.846***	7.4437***	7.7025***	7.6327***	7.8523***	8.0939***
	[0.391]	[0.215]	[0.404]	[0.38]	[0.47]	[0.352]
R squared	0.307	0.2652	0.2866	0.3273	0.2908	0.3474
Number of obs.	1264	4591	751	584	443	792

Notes:

(a) ***, **, and * denotes statistically significant at the 0.01, 0.05 and 0.1 levels respectively;

(b) Standard errors are reported in parentheses;

(c) Regression results for income analysis of the other ethnic groups are available from authors upon request but not reported here for brevity.