Ethnic minority poverty in Vietnam

Bob Baulch

Hoa Thi Minh Nguyen

Phuong Thu Thi Phuong

Hung Thai Pham

Chronic Poverty Research Centre
Manchester, UK

Centre for Analysis and Forecasting
Vietnam Academy of Social Sciences
Hanoi, Vietnam

National Economics University
Hanoi , Vietnam

Abstract

Although economic reform has brought remarkable progress in poverty reduction in Vietnam, the scale and depth of ethnic minority poverty in Vietnam presents one of the major challenges to achieving the targets for poverty reduction set out in the Socio-Economic Development Plan, as well as the Millennium Development Goals. We first review a series of monetary and non-monetary indicators, which show that the living standards of the ethnic minorities are improving but still lag seriously behind those of the majority Kinh-Hoa. The minorities' lower living standards result from the complex interplay of overlapping disadvantages, which start in utero and continue until adult life. Next, an analysis of the drivers of the ethnic gap, in terms of both differences in characteristics and differences in returns to those characteristics, is undertaken. Mean and quantile decompositions show that at least a half of the gap in per capita expenditure can be attributed to the lower returns to characteristics that the ethnic minorities receive. The reasons underlying such differences in returns are discussed, drawing on both quantitative analysis and the large number of qualitative studies on ethnic issues in Vietnam. Finally, some of the short- and longer-term policy measures which we believe could help to counter ethnic disadvantages in the nutrition, education and employment sectors are discussed. We also emphasise the importance of promoting growth that is geographically broad and socially inclusive − without which, the current disparities between the Kinh-Hoa and the ethnic minorities will continue to grow.

Keywords: Vietnam, ethnic minority, poverty

Acknowledgements

Bob Baulch is Coordinator of the CPRC's Poverty Dynamics and Economic Mobility Theme and Lead Economist for the Prosperity Initiative, Hanoi.
Email: bobbaulch@gmail.com

Hoa Thi Minh Nguyen is a Research Economist in the Centre for Analysis and Forecasting, Vietnam Academy of Social Sciences, Hanoi and a PhD Candidate in Crawford School of Economics and Government, The Australian National University, Canberra.

Phuong Thu Thi Phuong is a Researcher in the Centre for Analysis and Forecasting, Vietnam Academy of Social Sciences, Hanoi.

Hung Thai Pham is a Lecturer at the National Economics University, Hanoi and Research Fellow at Indochina Research and Consulting.

Contents

1   Introduction

This background paper for the 2008–09 Vietnam Poverty Assessment presents descriptive and multivariate analysis on ethnic minority poverty in Vietnam. The primary data sources used for the analysis comprise the Vietnam Living Standards Surveys (VLSS) of 1993 and 1998 and the Vietnam Household Living Standards Surveys (VHLSS) of 2002, 2004 and 2006. However, other quantitative and qualitative sources are used to triangulate and deepen the analysis where relevant.[1] Section 2 of the paper aims to develop a picture (or profile) of ethnic minority poverty in Vietnam, using both monetary (expenditure-based) and non-monetary (nutrition and education) measures. Section 3 conducts multivariate analysis of the correlates of minority and majority (Kinh-Hoa) living standards and decomposes these into differences in characteristics and differences in returns to those characteristics. Section 4 reconsiders Vietnam's policies for ethnic minority development in the light of these findings, and suggests some additional interventions and measures which may help to close the widening gap between the living standards of the majority and minorities.

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[1] These sources include the 2008 Participatory Poverty Assessments, the 2007 Labour Force Survey, the P135-II baseline survey and the 2009 World Bank Country Social Assessment.

2   A picture of ethnic minority poverty

Although poverty is a multi-dimensional concept, and has important non-monetary dimensions, we start by describing the poverty of the 52 ethnic minority groups in Vietnam, using a conventional expenditure-based metric. Figure 1 shows the poverty headcount (that is, the percentage of the population whose per capita expenditures are below the General Statistics Office-World Bank (GSO-WB) poverty line) fell from 54 percent in 1993 to ten percent in 2006 for the majority Kinh and Hoa, while poverty started at a higher level (86 percent) and fell more slowly (to 52 percent) for the ethnic minorities.

Figure 1: Poverty headcount (%) for the Kinh and Hoa versus the ethnic minorities
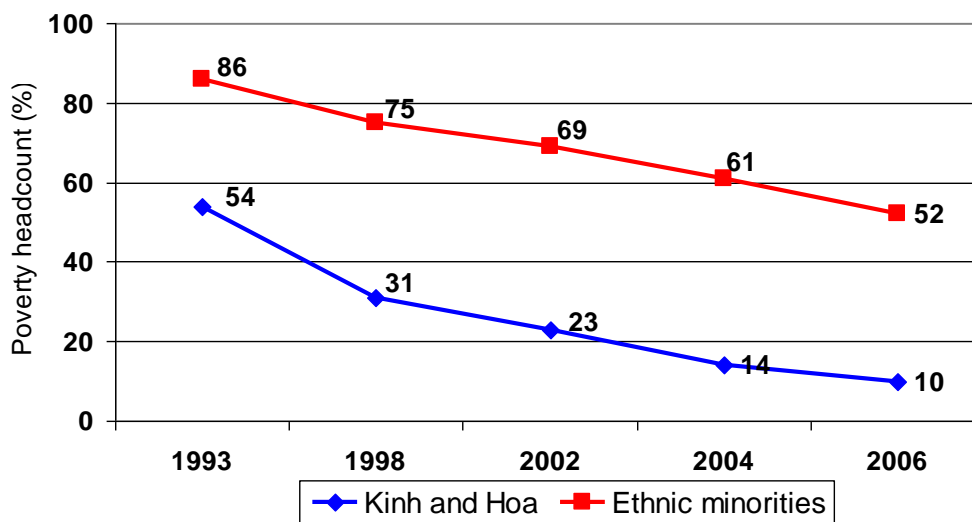
Source: Own calculations based on VLSS and VHLSS.

The reason for the rapid reduction in headcount poverty experienced in Vietnam, especially by the Kinh and Hoa, can be seen by examining the distribution of expenditures in Figure 2 below. Panels 1a and 1b show the distribution of per capita expenditures for the Kinh and Hoa (solid line) and the other 52 ethnic minority groups (dashed line). The poverty line, using the GSO and World Bank criterion, is also super-imposed on these densities.[2] The mode of the expenditure distribution for the Kinh and Hoa can be seen to have moved from just below the poverty line in 1993 to some way above it in 2006, while that for the ethnic minorities has moved to the right but remained below the poverty line in 2006. This provides the statistical explanation of why the poverty headcount for the Kinh and Hoa in Figure 1 fell so much faster than for the ethnic minorities between 1993 and 2006. Note that this is both good and

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[2] There are two poverty lines in common use within Vietnam: the GSO-World Bank poverty line (which is based on a standard cost-of-basic-needs methodology and estimated from the V(H)LSS), and the MOLISA poverty line (which is used for targeting and monitoring the number of poor households at the commune level).

bad news as far as the ethnic minorities are concerned. Equitably distributed economic growth in upland areas can reduce ethnic poverty dramatically by moving the mode of the minority distribution over the poverty line, while leaving most of these households vulnerable to falling back into poverty again due to household, community or economy-wide shocks. We estimate that if their per capita expenditures increased in line with real agricultural GDP growth (of 7.2 percent) between 2006 and 2008, the poverty headcount among ethnic minorities will have fallen to 47.1 percent by 2008. However, eight percent of these minority people would fall back into poverty again if their projected 2008 expenditures then fell by ten percent due to a shock.[3]

Note also that the distribution for both the Kinh-Hoa and ethnic minorities in Figures 2a and 2b become less peaked and more dispersed, confirming the moderate rise in inequality (especially between rural and urban areas) that has occurred over the last decade and a half (Pham *et al.*, 2009). There is, however, little evidence from these expenditure distributions of a rise in polarisation (that is, separate groups of the poor and rich emerging).[4]

Most previous work has highlighted disparities in living standards between Kinh and Hoa and the 52 minority ethnic groups. This simple majority/minority dichotomy potentially conceals important differences between individual ethnic groups. However, there are insufficient observations in the VHLSS to estimate statistics for most ethnic groups individually. We therefore adapt the categorisation used by Baulch *et al.* (2004) and identify six ethnic categories to examine the disparities between (different dimensions) of ethnic minority living standards in what follows. This categorisation is based on grouping the livelihood rather than cultural characteristics of the individual ethnic minority groups. While far from perfect, it represents the best compromise between the desire for greater disaggregation and the limitation of the VHLSS's sample size.

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[3] So the poverty headcount for ethnic minorities after the shock would rise to 55.1 percent. The comparable poverty figures for the Kinh and Hoa are: 7.9 percent (7.2 percent agricultural growth) and 11.5 percent (ten percent shock). Note that these calculations assume that growth is distributionally neutral (i.e., in equality does not increase or decrease). It has been necessary to project poverty forward in these ways, because the 2008 round of the VHLSS has been completed but not yet released.

[4] Between 1993 and 2006, the Duclos, Esteban and Ray measure of polarisation rose from 0.216 to 0.226 with α=0.5 and decreased from 0.183 to 0.180 with α=1. These are relative modest changes. See Duclos, Esteban and Ray (2005) for an introduction to these and other polarisation measures.

Figure 2: Expenditure distributions for the Kinh-Hoa and the minorities

a. 1993
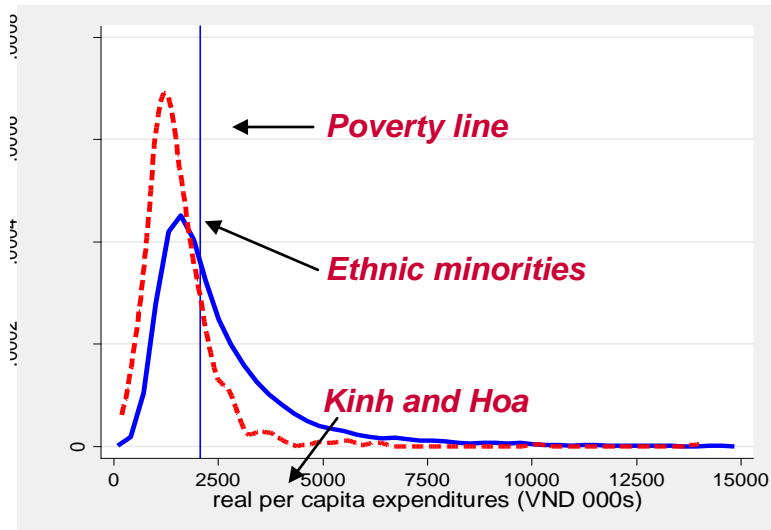
b. 2006
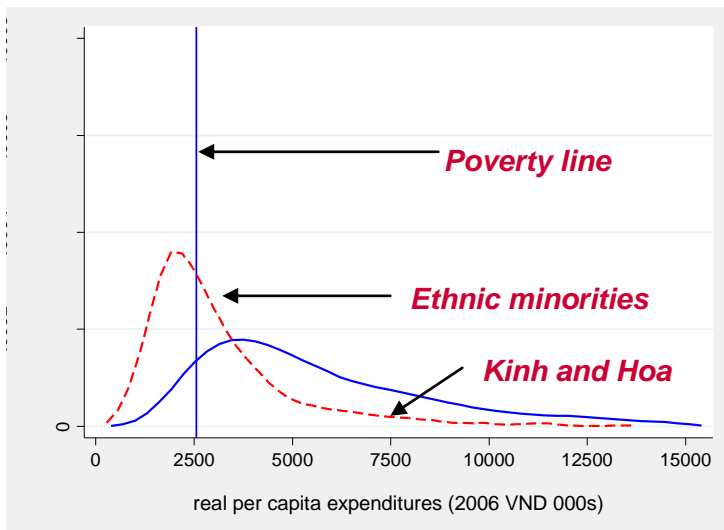
Source: Own calculations based on VLSS93 and VHLSS06.

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The snapshot of poverty measures and median expenditures in Table 1 shows that some ethnic categories, in particular the Other Northern Uplands and Central Highland minorities, are considerably poorer in expenditure terms than the Tay, Thai, Muong and Nung, who are in turn poorer than the Khmer and Cham.[6]

Table 1: Poverty headcount, poverty gap and median per capita expenditures, rural areas 2006

Ethnic Category	Poverty Headcount	Poverty Gap	Median PC Expenditures	Obser-vations
Kinh-Hoa	13.5%	2.7%	VND 4.267	5,875
Khmer-Cham	34.6%	5.8%	VND 2.819	122
Tay-Thai-Muong-Nung	45.2%	11.1%	VND 2.729	420
Other Northern Uplands	72.4%	26.1%	VND 1.878	239
Central Highlands	73.6%	25.7%	VND 1.955	198
Others	50.1%	23.5%	VND 1.942	28
Total	20.4%	4.9%	VND 3.936	6,882

It is also useful to show the deviation of the mean per capita expenditure of the six ethnic categories from their annual mean in the last round of the VLSS and first three rounds of the VHLSS survey (see Figure 3). As can be seen, the Kinh and Hoa have mean expenditures above mean in years, and this difference has been growing over time. In contrast, the other five ethnic minority categories have mean expenditures that are below the mean, and the relative position of the Other Northern minorities and Central Highland minorities has been declining substantially over time. In contrast, the deviations for the Khmer and Cham and Tay, Thai, Muong and Nuong are varying over time, although the former are always closer to the annual mean than the latter.[7] These disparities in living standards between ethnic groups are confirmed in a number of other qualitative and quantitative studies (Hoang *et al.*, 2007; Oxfam and Action Aid, 2008; Uplands Program, 2007; World Bank 2009).

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[6] Note that the poverty headcount and mean expenditures for these four ethnic categories are statistically different from one another at the one percent level. This is not the case for the residual 'Other category', which contains just 28 households.

[7] Again, because of their small sample size, not too much should be read into the results for the other category.

Figure 3: Ethnic expenditure differentials, 1998–2006
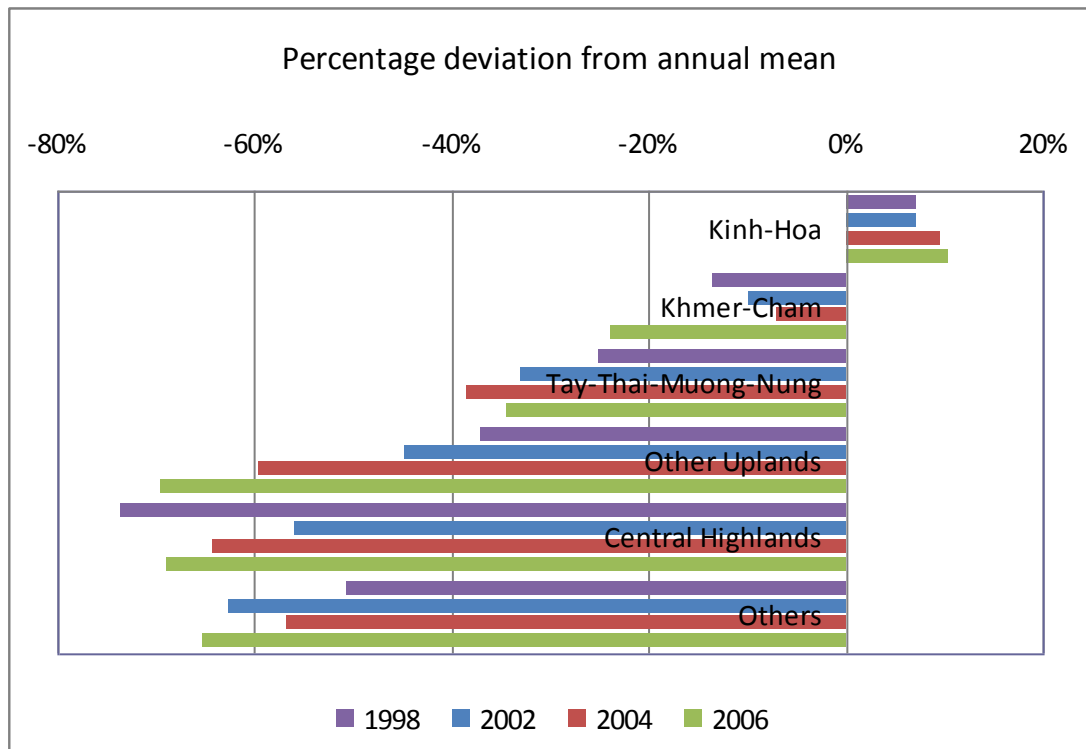
Source: Own calculations based on VLSS and VHLSS.

People belonging to the six different ethnic categories in Table 1 and Figure 3 have different levels of Vietnamese language proficiency. The Kinh obviously speak Vietnamese fluently, as do the vast majority of Hoa, and Tay, Thai, Muong and Nung people. However, Vietnamese language ability is generally lower among many of the Central Highlands and Other Northern Uplands categories. While the V(H)LSS questionnaires do not ask about people's fluency in Vietnamese directly, whether a household was interviewed using an interpreter can be used as a rough proxy for their Vietnamese language ability. Calculations using the VHLSS06 show that rural ethnic minority households who cannot speak Vietnamese well (and were therefore interviewed via an interpreter) are 1.9 times more likely to be poor than ethnic minority households who can speak Vietnamese, and 7.9 times more likely to be poor than Kinh and Hoa living in rural areas. Analysis of the data from the recent Program 135 II baseline survey also found that 'those [households] who had no or limited Vietnamese language ability were found amongst the poorest', while 'those who spoke only Vietnamese or both Vietnamese and ethnic minority languages were found similar in terms of poverty rate' to the Kinh (Pham *et al.*, 2008). A number of qualitative studies testify to the powerful influence that low ability in Vietnamese has on the ethnic minorities – in particular ethnic minority women – to access employment (Oxfam and Action Aid Vietnam, 2008), government services (VASS, 2009), engage in markets (World Bank, 2009), and receive social transfers.

Before we move on to non-monetary indicators of poverty, it may be worth examining one final aspect of ethnic minority expenditures concerning the share of festival and other holiday expenditures. Various anthropological studies (Dang *et al.*, 2000; World Bank, 2009) have argued that festivals are an important part of ethnic minority culture and living standards. However, the evidence from the VHLSS06 is mixed (Figure 4). While the ethnic minorities spend 13 percent more on food during festivals, the share of their festival expenditure on weddings is about the same, and on funerals much less than the Kinh and Hoa. Furthermore, in absolute terms the total amount the minorities spend on festival expenditures is less than the Kinh-Hoa (a mean of VND 1.7 versus VND 2.2 million per household in 2006).[8]

Figure 4: Festival expenditures by ethnicity, rural areas 2006
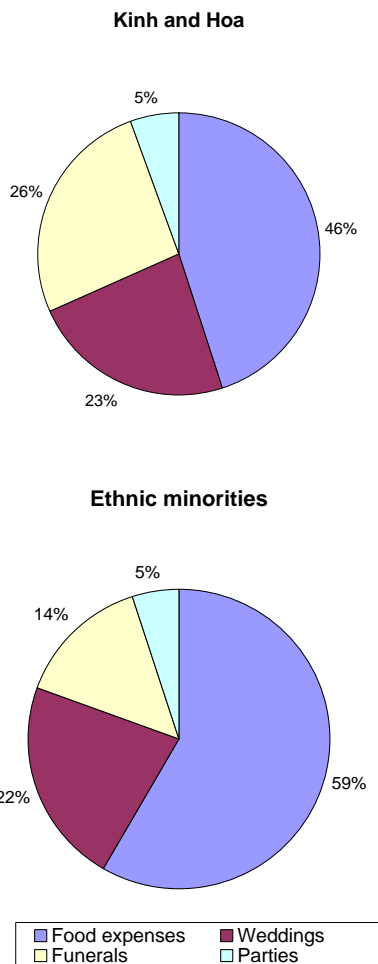
*Source: Own calculations based on VHLSS06.*

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[8] Note the festival expenditure module of the VHLSS06 questionnaires may not capture expenditures on ethnic minority festivals as well for Tet.

We now turn to examining some selected indicators on non-monetary welfare, starting with nutritional indicators for children under five and then moving on to educational enrolments and drops-outs for children, employment, income and mobility, and, finally, public services and social benefits.

2.1   Ethnic minority nutrition

Health, especially of children, is well reflected by nutritional status. As part of the effort to analyse the ethnic gap in Vietnam, we have calculated two nutrition indicators using the#VLSS98 and VHLSS06 surveys:[9] stunting and wasting for children aged 0–59 months. The reference standards used are the latest World Health Organisation's child growth standards (WHO, 2006). In addition, we report data from other studies on breastfeeding and weaning practices and micronutrients deficiencies, and discuss how these relate to ethnic minority nutrition.[10]

Children whose height-for-age is more than two and three standard deviations below the median of the reference population are considered to be stunted and severely stunted, respectively. Stunting is a reflection of chronic malnutrition as a result of failure to receive adequate nutrition over a long period and recurrent or chronic illness (GSO, 2006).

Wasted children are the ones whose weight-for-height is more than two standard deviations below the median of the reference population. Wasting is usually the result of a recent nutritional deficiency. Changes in wasting rates often reflect seasonal changes in food availability or the incidence of disease (GSO, 2006).

As shown in Table 2, Vietnam has made substantive progress in reducing stunting among children under five, although severe stunting among this age group has not changed. Furthermore, wasting rate has increased by one percent, for children under five years old and by four percent for children under 24 months. The latter difference is statistically significant at the highest levels. These results are consistent with recent annual surveys by the National Institute of Nutrition, which found that 32.6% of children under five were stunted in 2006 (NIN, 2007). A probable explanation for the increase wasting is that many infants in urban areas are bottle- rather than breast-fed and that those who are breast-fed are weaned too early.[11] The recent 2006 Multiple Indicator Cluster Survey (GSO and UNICEF, 2006),

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[9] Note that anthropometrics modules were not included in the 2002 and 2004 VHLSS. We are grateful to Nguyen Bui Linh, who used the WHO Anthro (version 2.02) to calculate height-for-age and weight-for-height z-scores from VLSS98 and VHLSS06 data.

[10] Most other studies of nutrition in Vietnam, including the National Institute of Nutrition's annual surveys and the GSO-UNICEF MICS surveys, do not disaggregate their results by ethnicity.

[11] It is estimated that only half of newborns are breastfed within one hour of birth and that less than 20 percent of children under six months old are exclusively breastfed (UN, 2006). International best

found that only 17 percent of children aged less than six months were exclusively breastfed, with the percentage of exclusive breastfeeding being much higher in rural areas than in urban areas. This suggests that young children's nutritional status might be improved by encouraging breastfeeding and allowing working mothers in urban areas to have longer maternity leave.

Poor complementary feeding makes children under 24 months of age lose weight very quickly, so their weight-for-height will go down. Disease (especially diarrhoea) also makes young children lose weight. The 2006 MICS results show the peak of diarrhoea prevalence is in the weaning period, among children aged six to 23 months. That suggests more attention needs to be given to the type of weaning foods given to children under 24 months of age. Acute respiratory infections are also one of the correlates of nutritional status among children. While mothers' knowledge, which is correlated with their education, is determinant for health-seeking behaviour, the 2006 MICS results show only nine percent of women knew about the danger signs of pneumonia. Therefore, work is also needed to raise mothers' awareness of hygiene and disease prevention.

Table 2: Nutrition indicators for children under five in the whole country

	< 60 months			<24 months			>=24 months and < 60 months		
	1998	2006	2 sample mean comparison test (P-value)	1998	2006	2 sample mean comparison test (P-value)	1998	2006	2 sample mean comparison test (P-value)
Stunting	42%	34%	0.0000	32%	26%	0.0000	48%	38%	0.0000
Severe stunting	13%	13%	0.1817	11%	11%	0.0000	15%	14%	0.0009
Wasting	11%	12%	0.0000	11%	15%	0.0000	11%	10%	0.0000
N	2,149	1,956		757	662		1,392	1,294	

Sources: Own calculations based on VLSS98 and VHLSS06.

practice suggests that all newborns should be put on the mother's breast immediately after birth and be exclusively breastfed until they are six months old.

Although the nutritional status of Vietnam children is quite consistent with other countries in the region at the same level of development (see Table 3), national under-five stunting rates are high and put Vietnam among the world's 20 worst performers in child nutrition (Vietnam News, 2008, quoting NIN). That the incidence of stunting in China and Thailand is around a third of that in Vietnam, suggests that there is considerable scope for improving the height-for-age of Vietnam's children.

Table 3: Nutrition status of children under-five, 2000–07

	Wasting, moderate and severe (%)	Stunting, moderate and severe (%)	Vitamin A supplement-ation full Coverage (%)	Households consuming iodised salt (%)
Cambodia	7	37	76	73
China		11		94
Lao	7	40	69	75
Mongolia	2	21	95	83
Myanmar	2	21	94	83
Philippines	6	30	83	45
Thailand	4	12		47
Vietnam*	12	34	95	93
India	19	38	33	51

Source: UNICEF (2008) except *, which are own calculations based on VHLSS06.

Reliable statistics on micronutrient deficiencies are hard to come by for most East Asian countries. However, the situation in Vietnam is probably not as favourable as the situation revealed by the available cross-country statistics (last two columns of Table 3). While Vietnam has (along with Mongolia) the highest rate of full coverage of Vitamin A supplementation for children aged six to 60 months, this also suggests that the need for Vitamin A supplementation is high.[12] The 2006 MICS survey found only 32.5 percent of mothers with a birth in the past two years had received a Vitamin A supplement within eight weeks of the birth. This number is significantly higher for the Kinh (35.2 percent) than other ethnic groups (19.2 percent) (GSO and UNICEF, 2006). A recent study of 1,657 children under five in four regions found that the prevalence of sub-clinical vitamin A deficiency was 12 percent and the prevalence of anaemia (iron deficiency) was 28 percent, with children under six months old and those living in the Northern Mountains being the most severely affected (Khan *et al.*, 2007). Small-scale studies indicate extremely high levels of micronutrient deficiencies in some ethnic minority areas. For example, in three mountainous areas of rural Thai Nguyen, Nguyen *et al.* (2008) found that 79 percent of preschool children suffered from at least two micronutrient deficiencies, with 56 percent suffering from anaemia

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[12] Vitamin A is essential for eye health and proper functioning of the immune system.

(iron deficiency) and 11 percent being Vitamin A-deficient. Selenium and zinc deficiencies were even higher (at 62 and 87 percent, respectively). The percentage of households consuming iodised salt has also probably fallen since late 2006, when the compulsory iodisation of salt was abandoned. As discussed in Section 4, bio-fortification of staple foods, together with fortification of other basic foodstuffs, has considerable potential to decrease micronutrient deficiencies in Vietnam.

Table 4 disaggregates stunting and wasting rates by ethnicity for children under five in rural areas. As the pattern of growth failure varies according to age, with wasting being more common among children under 24 months and stunting observed more clearly among children over 24 months (Young and Jaspers, 1995), we calculate nutrition indicators separately for children under 24 months and from 24 months to 59 months.[13] The Kinh-Hoa ethnic category has done very well in reducing their stunting rates for the period 1998–2006 for both age groups, with stunting rates reduced by seven and 16 percentage points, respectively. The ethnic minorities also made some progress, reducing stunting by two percentage points for children under 24 months, although this difference is not statistically significant at conventional levels. However, stunting among ethnic minority children older than 24 months, and wasting among minority children under 24 months increased by three and five percent, respectively. These differences are statistically different at the one percent level. Finally, a one percent reduction in wasting among both Kinh-Hoa and minority children over 24 months old was observed between 1998 and 2006. Again, these differences are statistically significant at the highest levels.

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[13] Sample size considerations do not permit further disaggregation by age and ethnicity.

Table 4: Nutrition indicators for children under five by ethnicity in rural areas, 1998 and 2006

Rural only	<24 months						>=24 month					
	1998			2006			1998			2006		
	Minorities	Kinh/Hoa	Two groups mean comparison test P-value	Minorities	Kinh/Hoa	Two groups mean comparison test P-value	Minorities	Kinh/Hoa	Two groups mean comparison test P-value	Ems	Kinh/Hoa	Two groups mean comparison test P-value
Stunting	35%	34%	0.3442	33%	27%	0.0000	54%	53%	0.0033	57%	37%	0.0000
Wasting	13%	11%	0.0000	18%	15%	0.0000	11%	12%	0.0000	10%	11%	0.0000
N	140	446		171	356		249	845		284	752	

Rural only	<24 months						>=24 month					
	Minorities			Kinh/Hoa			Minorities			Kinh/Hoa		
	1998	2006	Two sample mean comparison test P-value	1998	2006	Two sample mean comparison test P-value	1998	2006	Two sample mean comparison test P-value	1998	2006	Two sample mean comparison test P-value
Stunting	35%	33%	0.0936	34%	27%	0.0000	54%	57%	0.0000	53%	37%	0.0000
Wasting	13%	18%	0.0000	11%	15%	0.0000	11%	10%	0.0000	12%	11%	0.0000
N	140	171		446	356		249	284		845	752	

Sources: Own calculations based on VLSS98 and VHLSS06

Figure 5 presents the stunting, severe stunting and wasting rates for the six ethnic categories in the rural area only. The Kinh-Hoa and Khmer and Cham have done well in improving their height-for-age, thereby reducing moderate stunting by 13 and 16 percent, respectively. Wasting has also decreased by six percentage points among the Khmer and Cham. These changes are statistically significant at the highest levels. However, the nutritional status of the other four ethnic categories worsened between 1998 and 2006, with stunting among the Central Highlands increasing by seven percent and wasting among the Other Northern minorities rising by four percent. Surprisingly, the Thay-Thai-Muong-Nung's stunting and wasting rates also increased by five percent and four percent, respectively.[14]

Figure 5 also shows that the Kinh-Chinese made no progress in reducing severe stunting. Severe stunting rates worsened for all other ethnic categories, except for the Khmer and Cham and the Central Highlands minorities, although because of sample size issues only the increase in severe stunting among the Tay-Thai-Muong-Nung is statistically significant at conventional levels. This should be a cause for concern, as severe stunting in young children is very hard to reverse and is likely to lead to short stature and lower intelligence in adult life (Martorell *et al.*, 1992). Group mean tests among the five ethnic groups show that moderate and severe stunting rates are jointly different from each other at the one percent level in 2006, and statistically different from each other for severe stunting at the five percent level in 1998.

There are many factors which affect the nutrition of children (Haughton and Haughton, 1997). The poor nutritional indicators observed for ethnic children may stem not only from the lower living standard that their households have, compared with the majority counterparts. There are also many other factors, such as parents' height, women's nutrition status when entering the pregnancy and during the first trimester, mothers' education, living environment, worm loads and the incidence of infections, especially diarrhoeal, diseases. For ethnic children living in upland and mountainous areas, their high malnutrition rates may also relate to geographical remoteness. In these areas, where maternal mortality and micronutrient deficiencies are also high, efforts to reduce child malnutrition should focus on improving the nutrition of women before and during pregnancy, as well as of children in their crucial first two years of life.[15]

Finally, it should be noted that although parents in Vietnam, especially in rural areas, prefer having sons to girls, there is no evidence of bias against the girls in nutrition. In fact, if anything, nutrition is worse amongst boys than girls, especially during the first two years of life (see Appendix 2 and Appendix 3).

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[14] All these changes are statistically significant at the one percent level, although the reduction in moderate stunting for the Other Northern Minorities is not (see Appendix 1)

[15] It is well known that poor nutrition in vitro and during the first two years of life leads to irreversible damage in later life (Martorell *et al.*, 1992)

Figure 5: Nutrition indicators for children under five by ethnic category, 1998 and 2006

Stunting rate of chilren 0-59 months by Ethnic Groups

(Categories: Kinh & Hoa, Khmer & Cham, Tay-Thai-Muong-Nung, Other Northern Uplands, Central Highlands; Series: VHLSS 2006, VLSS 1998)

Wasting rate of children 0-59 months by Ethnic Groups

(Categories: Kinh & Hoa, Khmer & Cham, Tay-Thai-Muong-Nung, Other Northern Uplands, Central Highlands; Series: VHLSS 2006, VLSS 1998)

Severe Stunting rate of chilren 0-59 months by Ethnic Groups

(Categories: Kinh & Hoa, Khmer & Cham, Tay-Thai-Muong-Nung, Other Northern Uplands, Central Highlands; Series: VHLSS 2006, VLSS 1998)

Sources: Own calculations based on VLSS98 and VHLSS06.

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2.2   Ethnic minority education

If the living standards of the ethnic minorities are to catch up with those of their Kinh-Hoa counterparts, it is essential that their educational standards are improved. This sub-section discusses education enrolments and school dropouts, using the VLSS98 and VHLSS06 data combined with administrative data for the post-secondary level. While such an analysis is obviously partial – it does not, for example, discuss the quality of the education received or the standards students attain − it nevertheless reveals that the educational disadvantages experienced by ethnic minority children and young people cumulatively increase with age, which it turn makes it extremely difficult for them to access wage employment. Some policy measures that may help to counter these cumulative educational disadvantages are suggested in Section 4.

Figure 6 shows enrolment rates for primary, lower secondary and upper secondary school age children in rural areas calculated using the VLSS98 and VHLSS06. Although there has been little change in overall primary NER for rural areas between 1998 and 2006, the percentage of primary school age children enrolled from the ethnic minorities has increased by just over two percent.[17] Primary NERs among children from the Central Highland minorities and also the residual Others category have increased by around 30 percent. Nevertheless, inspection of their GER shows that large numbers of children from the Central Highland minorities, and especially the Khmer and Cham, go to primary school late.[18]

At the lower secondary school level, NER have increased by at least a fifth for all ethnic groups, with the Other Northern Upland and the Central Highlands minorities each recording improvements of around two-fifths. Nonetheless, these two ethnic categories remain educationally disadvantaged, with less than half of their children attending lower secondary school in the right age range. Almost two-fifths of the children from the Other Northern Uplands minorities who attend lower secondary school do so late.

The disparities between net enrolment rates become most pronounced at the high school level, where almost 60 percent of Kinh and Hoa children attend upper secondary school, compared to just under ten percent for the Khmer and Cham. Upper secondary school enrolments are also under 20 percent for the Other Northern minorities and the Central Highland minorities.

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[17] To reflect school enrolment practices in Vietnam, these NERs have been calculated using the year of birth of child rather than their age at the time of interview,

[18] Rural primary GERs among the Central Highlands minorities and Khmer and Cham in 2006 were 110.8 percent and 120.2 percent, respectively, compared to 102 percent for the Kinh and Hoa. See Appendix 1 for details.

Figure 6: Net enrolment rates, rural areas
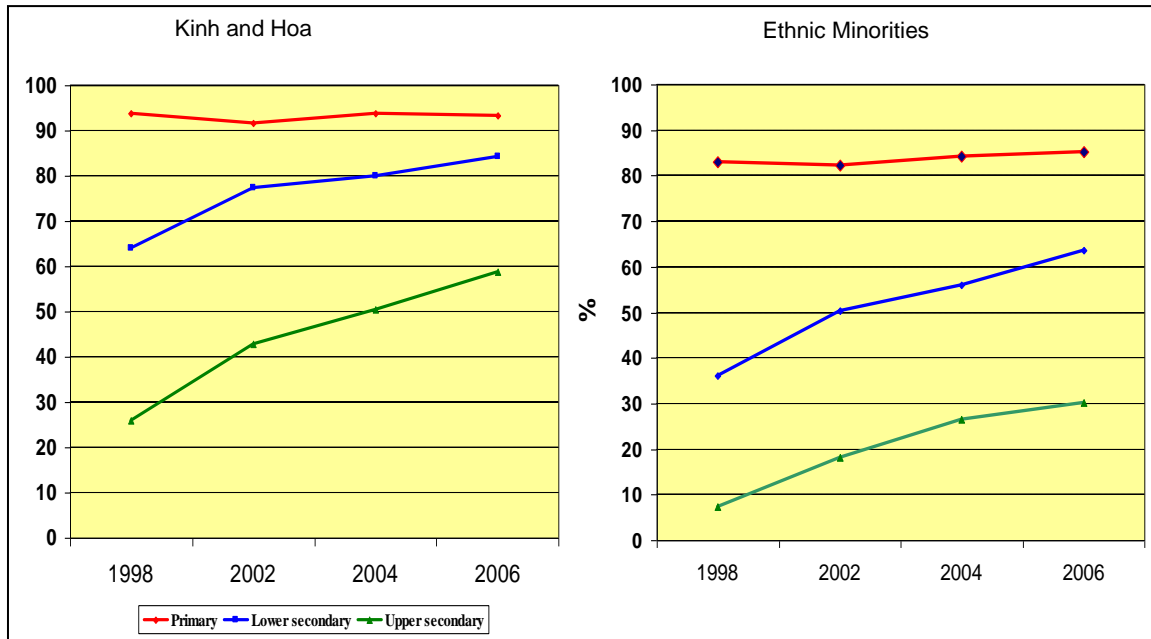
Source: Own calculations based on VLSS98 and VHLSS02-06.

Figure 7: Net enrolment rates by schooling level, rural area, 1998 and 2006
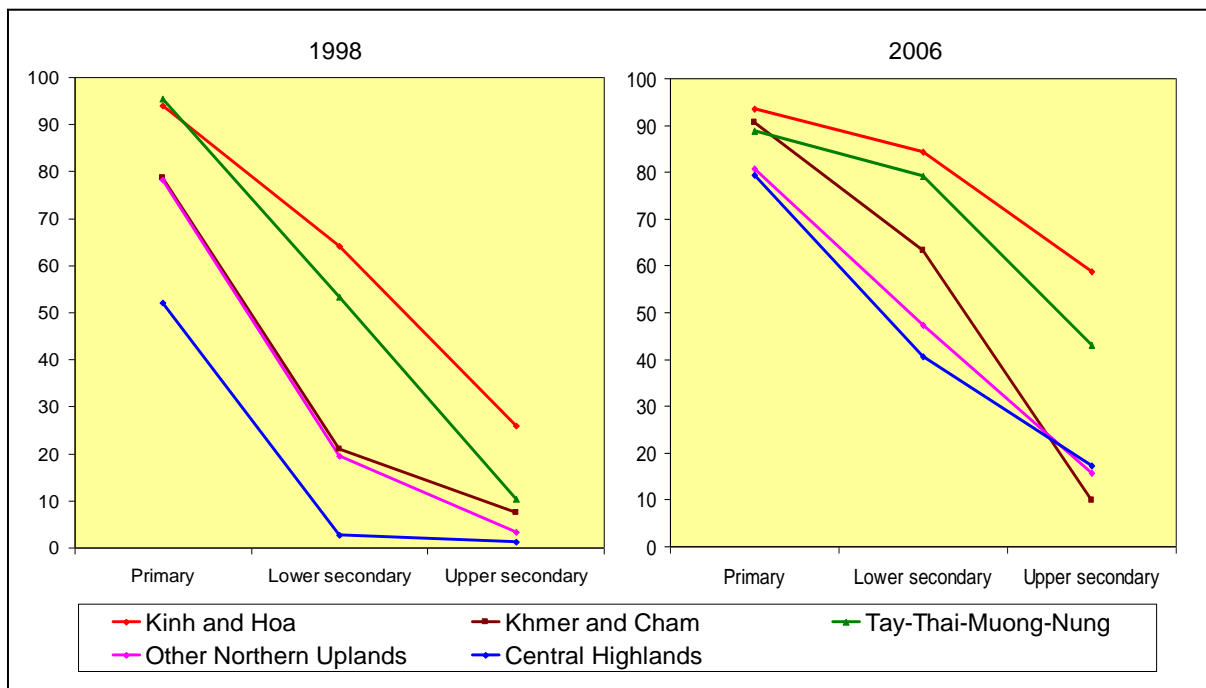
Source: Own calculations based on VLSS98 and VHLSS06.

We can explore the reasons underlying these differences in enrolment rates by examining the pattern of school drop-outs by age and ethnicity (see Figure 8). As one would expect, most school drop-outs occur during the transitions from primary to lower secondary school and from lower to upper secondary school. However, as can be seen from Figure 8, a large number of pupils from the Other Northern minorities drop out between grades 2 and 3. 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 villages 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.

Among pupils from the Central Highland minorities, drops-outs are highest between grades 6 and 7, especially for girls. This age roughly corresponds to the age of menarche and also of marriage (or betrothal) for some ethnic groups. For Khmer and Cham pupils, drop-outs are highest between grades 4 and 6. By grade 10, there are so few Khmer and Cham enrolled in school that drop-outs become minimal.

Figure 8: Drop-outs by highest grade attained, rural area 2006
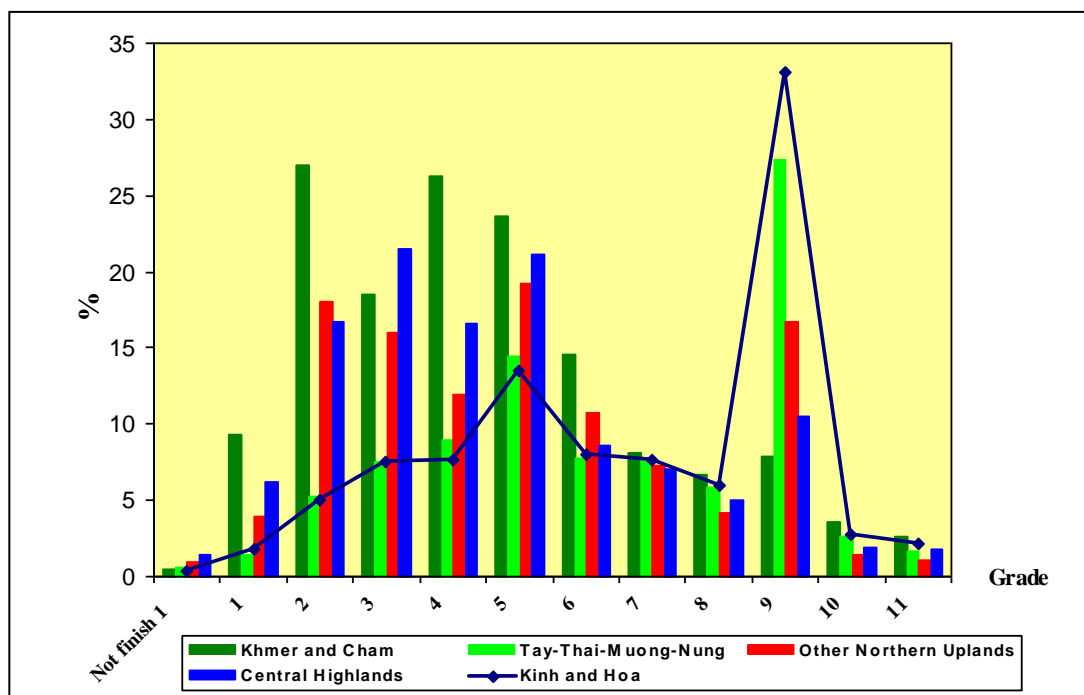
Source: Own calculations based on VHLSS06.

In comparison with the rural areas in general, more pupils drop out during the primary level in remote areas (defined as communes belong to socio-economic development region (*vung*) 3). As can be seen from Figure 9, the situation is worse for the girls, many of whom cannot finish primary school in remote communes. Girls from the Central Highlands and Other Northern Uplands minorities tend drop out at during grades 2 and 3, which probably corresponds to the point at which pupils have to start studying in the commune school rather than village classrooms. In contrast, for the Khmer and Cham and Tay-Thai-Muong-Nuong pupils in remote communes, drop-outs peak in grades 4 and 5 and there are no clear differences between boys and girls.

Figure 9: Drop-outs by highest grade obtained in remote communes, 2006
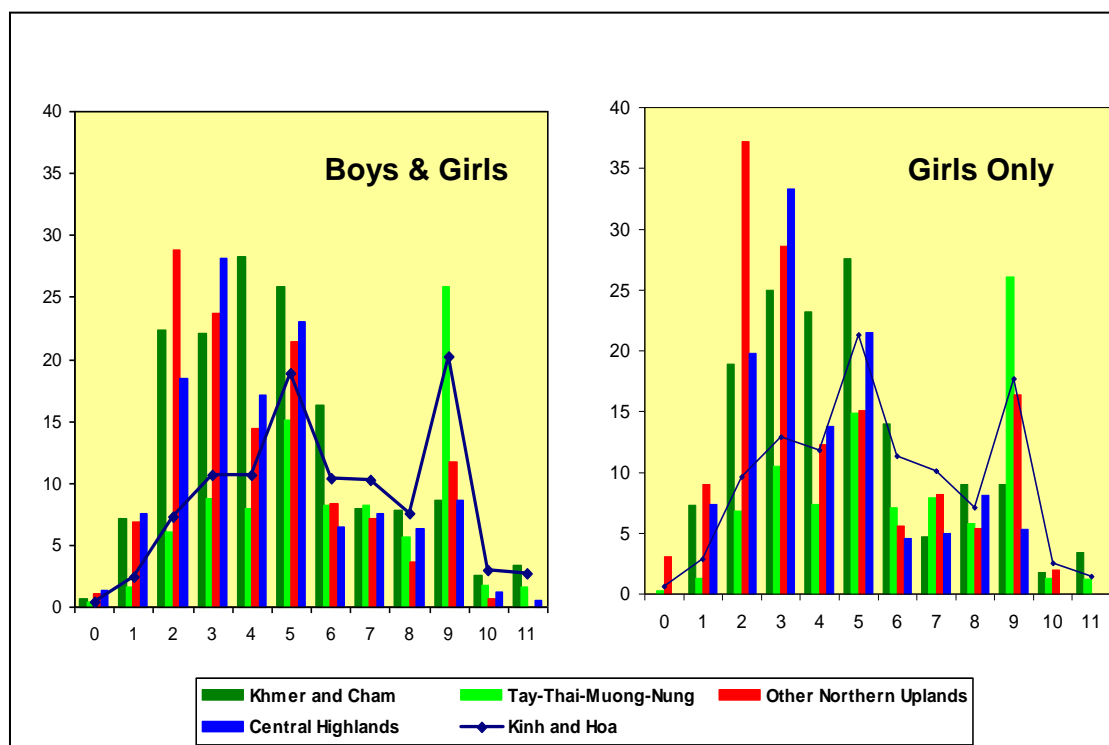
Source: Own calculations based on VHLSS06.

A recent survey in three provinces with large ethnic minority populations for the World Bank's Country Social Assessment (World Bank, 2009) showed around 30 percent of minority households reported at least one child had dropped out of school before the completion of a grade, compared to 16 percent for the Kinh. Survey respondents argued that minority students drop out of school for many, mutually enforcing reasons, including: poverty, long distance to school, lack of self-esteem, language barriers, poor nutritional status, and the high opportunity costs of current time (arguing that the costs are borne now, whereas potential benefits can only be reaped in the long term, by which time they will be heavily discounted). The role of language barriers in school drops-outs particularly deserves stressing. The CSA survey found that the vast majority of ethnic minority children speak their own languages at home and argues that 'Many minority children start their first day of

primary school unprepared for instruction in Vietnamese'. While the extension of pre-school and pre-sessional summer classes can do much to help prepare four and five year-olds to start learning in Vietnamese, it is unlikely that many of them will be able learn adequately in Vietnamese by the age of six.[19] Additional support in Vietnamese for ethnic minority students whose mother tongue is not Vietnamese is therefore extremely important in, at a minimum, grades 1 and 2.

The quality of the school which ethnic minority children attend is also clearly a vital factor, although reliable data on school quality are rarely available. Swinkels and Turk's (2006) report on an assessment of learning outcomes in 3,660 schools across the country shows that a combination of lower quality teaching, poor facilities, long travel times and language issues mean that grade 5 children in ethnic minority areas are learning less than those in other parts of the country. It concludes that the ethnic minority pupils need to start school earlier and repeat grades less, and the schools in the isolated areas should be better resourced to overcome the deficits of their intake of pupils. There is also evidence that schools in the poorest communes, where most ethnic minorities live, are in much poorer physical condition than the average. Pham *et al.* (2008), using the P135-II's baseline survey, documented the most difficulties to education access perceived by households in the P135-II communes. Their results show that at the primary education level, insufficient physical facilities were identified as the most serious obstacle by 85 percent of the P135-II communes. Limited school budgets and poor living conditions for teachers were ranked as the second most important difficulty in 42 percent of these communes. While the number of ethnic minority teachers is increasing, most ethnic teachers have received insufficient training in teaching methods. As a result, in some research sites of the World Bank Country Social Assessment, ethnic teachers said that 'they were perceived by their principals to be "less qualified" and worse teachers and given subordinate jobs or administrative work' (World Bank, 2009).

At the post-secondary level, it is not possible to disaggregate into the six ethnic categories. However, the Ministry of Education and Training's statistics show a stark contrast between the percentage of Kinh and ethnic minority students. Compared to their 12.1 percent population share in the 1999 Census, only 1.3 percent of post-secondary students in the 1999–2000 school year were from the ethnic minorities (and only 19percent of these were attending college or university). Although by 2006–07 the number of ethnic minority students had almost doubled to 51,514 students, young people from the ethnic minorities still make up

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[19] In one North-western province, which two of the authors visited in 2007, ethnic minority children from remote communes were given just 36 half-day summer classes before being expected to learn entirely in Vietnamese!

just 2.5 percent of all post-secondary students (compared to their population share of approximately 16–17 percent).[20]

Figure 10: Percentage of ethnic minority students in post-secondary education
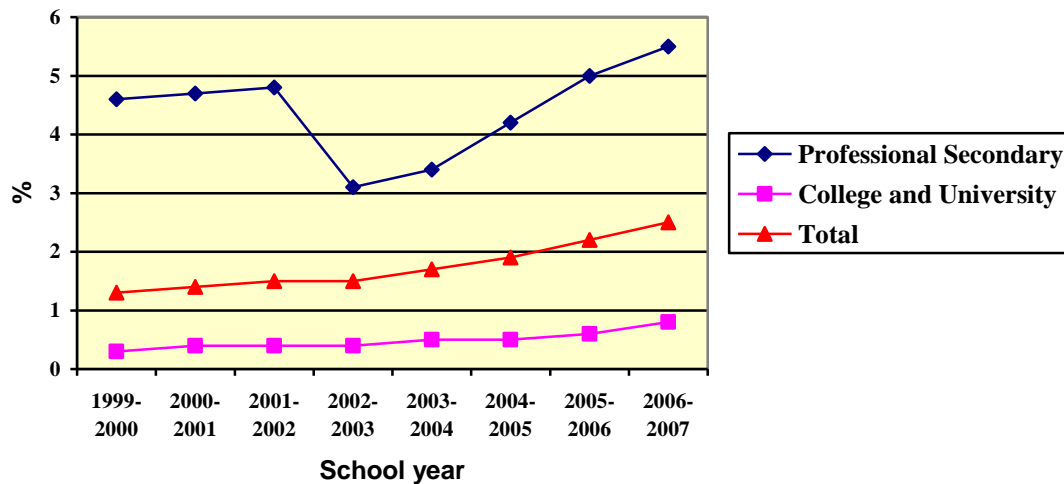
Taken together, these figures show a situation in which the educational standards of the ethnic minorities, while improving, lag seriously behind those of their Kinh-Hoa counterparts. Furthermore, the educational disadvantages experienced by ethnic minority children and young people cumulatively increases with the level of schooling. Thanks to the considerable investments made at this level in recent years, primary net enrolment rates for all ethnic categories are 80 percent or higher. However, the Other Northern minorities and Central Highland minorities still have net primary enrolments rates that are around 13 percent lower than the rural Kinh and Hoa. These groups also tend to enrol in primary school later than their majority counterparts. The educational attainment gap opens up further for these two groups at the lower secondary school level, and starts to open up for the Khmer and Cham at this level too. By the time they reach high school age, less than a quarter of all ethnic minority teenagers are attending upper secondary or professional schools, and a gap is also opening up between the Tay-Thai-Muong-Nung and the Kinh-Hoa. As a consequence, just 2.5 percent of post-secondary students in Vietnam come from the ethnic minorities.

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[20] The exact share of the ethnic minorities among young people of post-secondary age will not be known accurately until the results of the 2009 Census become available. In the 1999 Population and Housing Census, the share of ethnic minority in young adults aged 18 to 22 years was 13.7 percent (GSO, 2001).

2.3   Employment, incomes and mobility

Table 5, which is based on analysis of the 2007 Labour Force Survey, shows that in rural areas the ethnic minorities are about two-and-a-half times less likely to be wage workers than the Kinh. The minorities are also much less likely to have written contracts of employment, receive pay slips, or have social security benefits (VSI). In Vietnam as a whole, the Labour Force Survey shows that non-Kinh (that is, the minorities plus the Hoa) receive much lower labour income that the Kinh. However, it is important to note that the non-Kinh figure in this table is substantially improved by the presence of Hoa workers, who earn much more (and also work substantially longer hours) than the Kinh.

Table 5: Characteristics of main job by ethnicity, 2007

	Kinh	Hoa	Minorities
Rural areas			
Wage workers (%)	25.8	17.7	10.3
Written contract (%)	12.1	7.6	4.8
Pay slip (%)	12.7	9.1	4.8
Social security (%)	9.0	6.0	4.0
Rural & urban areas	**Kinh**	**Hoa**	**Non-Kinh**
Labour income (VND million)	1.108	1,795	0.699
Hours/week	44	50.1	43.2
Sample size	275,543	3,163	44,513

Source: Roubard (forthcoming).

Part of the reason why the minorities have less access to wage employment and have less diversified income sources more generally is that they are much less mobile than the Kinh and Hoa. There are obviously many different aspects to mobility (geographic, economic, social) but the one we focus on here is geographic mobility. The World Bank's *Country Social Analysis* (2009) argues that early government migration programmes tended to favour the Kinh, although in recent years much migration to the Central Highlands has involved both Kinh and (certain) Northern minorities. Once they have migrated, the CSA's household survey in Dak Lak showed that Kinh migrants are also much more likely to have received government support or land allocations compared to the minority migrants (World Bank, 2009).

Figures from GSO's 2004 Migration Survey in Table 6, which was conducted in 11 selected provinces and, like the CSA's survey is not nationally representative, show that the vast majority of migrants are Kinh, as would be expected by their population share. The Nung, Tay, Thai and Muong are also well represented among migrants in the survey, while the Hmong, Dao and Khmer are under-represented relative to their population shares.

Table 6: Migration and ethnicity, 2004

Ethnic group	Number of migrants	%
Kinh	9,013	90.1%
Nung	239	2.4%
Tay	219	2.2%
Thai	115	1.1%
Muong	85	0.8%
Hmong	65	0.6%
Dao	63	0.6%
Hoa	59	0.6%
Khmer	17	0.2%
Others	132	1.3%
Total	*10,007*	*100*

Source: Own calculations based on Vietnam Migration Survey 2004 (GSO, 2005).

Although it does not record the ethnicity of migrants, the *2006 Population Change, Labour Force and Family Planning Survey* (GSO, 2007) shows that in-migration is most important in the Southeast, followed by the Central Highlands. Out-migration rates are lowest from the Northwest and are also relatively low for the Northeast. In terms of the number of migrants, the Mekong River Delta is the largest source of out-migrants.

Analysis of income data from the VHLSS06 confirms that the ethnic minorities in rural areas derive a much smaller proportion of their income from wage labour than the minorities.[21] Indeed, as Figure 11 shows, while the amount of income the minorities derive from agriculture (crops, forestry and fisheries) is only slightly lower than the Kinh and Hoa, their incomes from other sources are much lower. The minimal amount which the ethnic minorities typically derive from non-farm enterprises is particularly striking. As explained in the next section, the proportion of crop income which the minorities derive from non-staple crops is

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[21] We are grateful to Nguyen Bui Linh for sharing these income aggregates with us.

also low. This is reaffirmed by Pham *et al.* (2008) using the data from the P135-II baseline survey.

They report that ethnic minority-headed households living in 400 of Vietnam's poorest communes are more dependent on agricultural sources of income, which accounted for nearly 70 percent of their total average income, while wage income accounted for 18 percent. In contrast, Kinh and Hoa households in the P135 baseline survey earned nearly half of their income from non-farm activities, while agriculture contributed less than 40 percent and wage income nearly a third of average Kinh-Hoa households' incomes.

Figure 11: Income sources by ethnicity, rural areas 2006
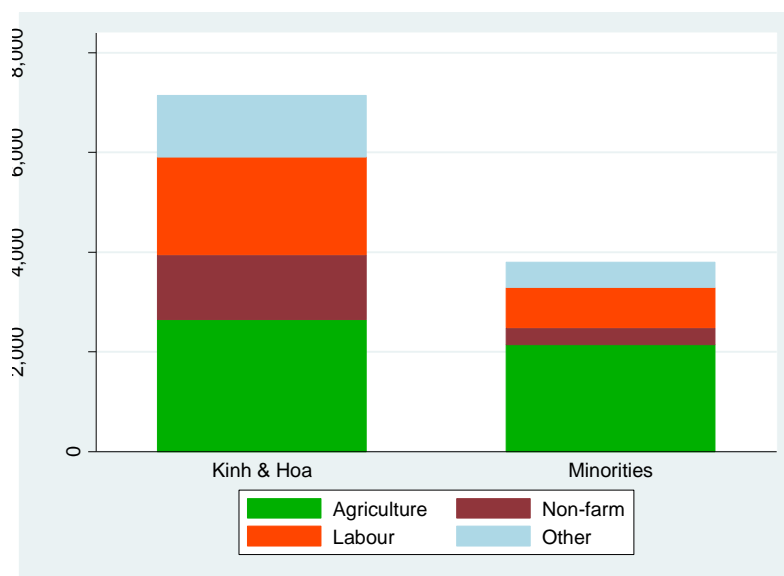
Source: Own calculations based on VHLSS06.

2.4   Public services and social transfers

To conclude this section, we examine the extent to which the ethnic minorities benefit from the provision of public services and transfers. Table 7 shows the percentage of households in rural areas who have access to safe drinking water, mains electricity and preferential loans.[22] Access to safe drinking water has expanded dramatically in rural areas since 1998, especially for the minorities. However, less than two-fifths of the Other Northern Upland and Other minority categories had access to safe drinking water in 2006. Access to mains electricity, which in 1998 was already high by developing country standards, has also improved substantially. By 2006, 94percent of all rural households had access to mains electricity, with all ethnic categories except the Other Northern Upland minorities having

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[22] Access to public facilities, such as schools, hospitals and roads, is considered in Section 3.3.

coverage rates of more than 75 percent. In both these cases, the impact of government infrastructure programmes in mountainous and remote communes can be seen. Access to preferential (subsidised) loans has, under pressure to reform Vietnam's banking system, declined by almost a half. The minorities have, however, been less severely affected by the contraction of preferential loans than the Kinh and Hoa.

Table 7: Access to public services in rural areas

	Safe drinking water (% of households)		Mains electricity (% of households)		Preferential loans (% of households)	
	1998	2006	1998	2006	1998	2006
Kinh and Hoa	32.9	88.4	75.7	97.3	10.0	5.0
Minorities	11.6	55.6	47.0	79.7	17.0	15.4
Khmer and Cham	57.1	90.1	24.6	82.7	4.3	5.3
Tay-Thai-Muong-Nung	5.1	57.6	56.3	82.4	20.5	16.9
Other Northern Uplands	3.0	35.5	63.1	55.6	13.6	14.6
Central Highlands	2.4	50.8	25.3	92.9	18.5	17.6
Others	7.6	40.2	30.2	77.4	19.9	16.4
Rural average	29.1	82.8	70.5	94.3	11.3	6.8

Notes: Safe water includes water from taps and drilled wells, rain water, protected fountain water, bottled water, and tank water. Preferential loans are loans from the Bank for Social Policy, Program 143, and the Employment Fund. Source: Own calculations based on VLSS98 and VHLSS06.

In recent years, a discussion has also emerged about whether some ethnic minority groups are becoming dependent on social transfers and other supports. As can be seen from Table 8, social protection support payments in rural areas have more than doubled between 1998 and 2006, with Kinh and Hoa households receiving more than all other groups (with the possible exception of the residual others category in 2006, which contains just 28 households). The relatively prosperous and well integrated Tay-Thai-Muong-Nung category has also done well from social protection transfers, with the support payments they receive almost tripling to almost one million per person per annum over this period.. Social protection payments to the Central Highland rose even faster over this period, with the Central Highland minorities overtaking Northern Upland minorities as the third largest beneficiary of social protection transfers. The remaining columns of Table 8 how the percentage of households receiving different types of social assistance or insurance payments. In 1998, the percentage of households receiving social supports was much higher among the Kinh and Hoa than for the minorities, with the exception of preferential loans. In contrast, by 2006, a higher percentage of the ethnic minority households were receiving social transfers for all categories except social insurance. For some categories, such as education and health assistance, the improvement is very large indeed. Furthermore, the poorest ethnic minority categories (such as the Other Northern Uplands and Central Highland minorities) are now more likely to receive these transfers. While such figures could be interpreted as evidence of increasing dependence among the ethnic minorities, they also provide evidence of

improvements in the poverty targeting of social transfer payments to the poorest rural groups.

Table 8: Percentage of households receiving social assistance payments

	Social protection transfers (000s VNDs)	Health assistance	Social assistance (A)	Social insurance (B)	Social protection payments (A+B)
1998					
Kinh and Hoa	485	18.3	10.6	9.8	18.8
Ethnic minorities	284	13.0	7.8	6.6	13.8
of which :					
Khmer and Cham	20	3.7	2.5	0.2	2.7
Tay-Thai-Muong-Nung	396	14.8	5.8	10.6	15.6
Other Uplands	399	3.5	10.7	4.7	14.3
Central Highlands	98	21.0	9.5	2.8	11.8
Others	67	23.6	31.0	0.0	31.0
Rural average	449	17.3	10.1	9.2	17.9
2006					
Kinh and Hoa	1,152	10.3	11.2	6.0	16.0
Ethnic minorities	804	31.5	15.4	3.8	18.5
of which					
Khmer and Cham	272	24.3	4.8	0.0	4.8
Tay-Thai-Muong-Nung	995	25.0	11.3	5.7	16.3
Other Uplands	518	38.0	15.7	2.6	18.1
Central Highlands	542	46.1	29.2	1.2	29.6
Others	1,649	47.6	40.4	6.3	40.4
Rural average	1095	14.0	11.9	5.6	16.5

Source: Own calculations based on VLSS98 and VHLSS06.

Appendix 5 provides additional information on the percentage of beneficiary households' real expenditures, which are accounted for by different categories of social transfer, of which social insurance payments are clearly the most important. The value of social assistance payments has, however, also increased more than three times between 1998 and 2006, with Kinh-Hoa beneficiaries receiving slightly higher payments than minority beneficiaries (in both absolute and percentage terms).

Having set out this picture of ethnic minority poverty, we now move to assessing how much of the observed disparities in majority–minority living standards can be explained by differences in their household and community characteristics, and how much by differences in the returns they receive for these characteristics.

3   Decomposing the ethnic gap, 1998–2006

Following the approach in the existing literature, we use per capita expenditure as the metric to examine the gap in welfare between the majority and ethnic minorities in rural Vietnam (see van de Walle and Gunewardena, 2001; Baulch *et al.*, 2008). Our chosen measure is defined as real household per capita expenditure computed on the basis of total household food and non-food consumption over the past 12 months. We restrict our sample to rural areas, both because this is where the vast majority of Vietnam's ethnic minorities live, and because of well-known problems with the urban sampling frame for the 1998 and 2004 surveys (Pincus and Sender, 2006; VASS, 2007). Following van de Walle and Gunewardena, (2001) and Baulch *et al.* (2008) we treat households headed by either Kinh or Hoa as comprising the majority group, and households headed by the other 52 official recognised ethnic groups as a broadly defined minority group.[23] Note that it is econometrically problematic to disaggregate the minorities further in a multiple regression context, because of sample size issues. Approximately 14 percent of households were headed by ethnic minorities in 1998, rising slightly to around 15 percent by 2006.

Figure 12: Evolution of the rural ethnic expenditure gap
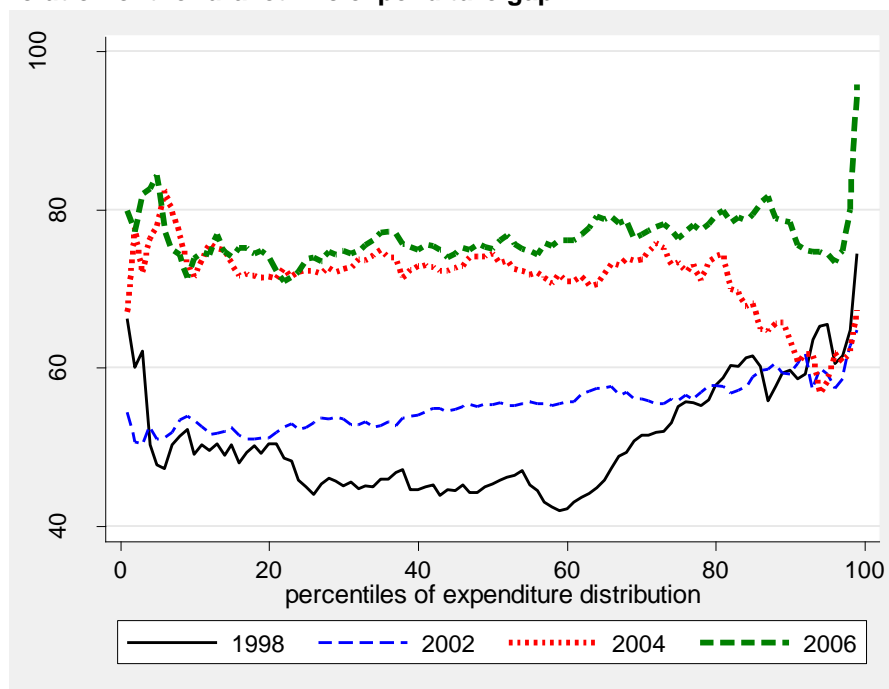
Source: Own calculations based on VLSS98 and VHLSSs 2002-2006.

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[23] The motivation for merging the Hoa (Chinese) with the Kinh to form the majority group relates to the fact that Hoa headed households are widely recognised as being relatively well off and economically integrated in Vietnam, though this phenomenon is strongest in urban areas.

The welfare gap between the Kinh and Hoa and the ethnic minorites can be highlighted by plotting the kernel densities for per capita household expenditure between 1993 and 2006 in Section 2 (see Figure 2). The average per capita expenditures of Kinh-Hoa per household was 51 percent higher than that of the minorities in 1998, and increased to 74 percent by 2006. The largest part of the increase occurred between 1998 and 2004. Figure 12 plots the actual household expenditure gap between the Kinh-Hoa and the minority groups by percentile ranking. It is evident that the gaps in household living standards have widened considerably over time at almost all the non-extreme percentiles of the distribution and these gaps exhibit a degree of stability across most of the expenditure distribution.

Given the growing gap in real per capita expenditure between the Kinh-Hoa and ethnic minority groups, the subsequent sub-section describes the methodologies employed to decompose that ethnic expenditure gap. The empirical results will be analysed in the third sub-section, where a focus is placed on findings ways to explain the reasons underlying why ethnic minorities tend to 'receive' less from their endowments compared to their Kinh and Hoa counterparts.

3.1 Empirical methodology

We define the ethnic-specific expenditure equations for the majority and minority groups by:

$$y_m = x_m'\beta_m + \mu_m \tag{1}$$

$$y_e = x_e'\beta_e + \mu_e \tag{2}$$

where j is the ethnic group subscript ($j = m$ and e that denote the majority and minority groups respectively); y_j is the natural logarithm of per capita expenditures for the group j; 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); β is a ($k \times 1$) vector of unknown parameters capturing the effect of various covariates on the natural log per capita expenditure (y_j); μ is a ($n \times 1$) vector of random error terms.

Applying the Blinder-Oaxaca decomposition (Blinder, 1973; Oaxaca, 1973), the estimated mean ethnic difference in log PCE is generally expressed as:

$$\bar{y}_m - \bar{y}_e = (\bar{x}_m - \bar{x}_e)'\hat{\beta}_m + \bar{x}_e'(\hat{\beta}_m - \hat{\beta}_e) \tag{3}$$

where the 'bar' denotes mean values and the 'hat' denotes coefficient estimates. This allows the overall average differential in per capita expenditure between the two ethnic groups to be

decomposed into a part attributable to differences in characteristics (also known as the 'explained' or 'endowment' effect) and a part attributable to differences in the estimated returns to characteristics between majority and minority workers (also known as the 'unexplained', 'treatment' or 'residual' effect). The second term in equation (3) is sometimes taken to capture the effect of 'unequal treatment' against ethnic minorities, although, as explained in Section 3.3 below, this interpretation must be treated with caution.

This approach assumes that in the absence of 'unequal treatment', the majority group's coefficient structure prevails.[24] Given that these components are (log) linear in the estimated parameters, their sampling variances can be computed with ease. In addition, the overall treatment and endowment components can be decomposed further into sets of characteristics and coefficient differences, to identify the key factors driving the overall components. In the current study, the variables are classified according to household structure (e.g., household size, age structure composition of the household), household education levels, landholding characteristics (e.g., household's access to different types of lands), and commune characteristics (such as access to electricity, markets, post-offices, post-offices, roads, schools and the geographic region the commune is located in).

Blinder-Oaxaca type decompositions are cast within a mean regression framework, which provides an incomplete picture of the ethnic expenditure gap. So we also estimate a set of conditional quantile regressions, which allows for a more detailed analysis of the relationship between the conditional per capita expenditure distribution and selected covariates. It is well known that, in contrast to the OLS approach, quantile regressions are less sensitive to outliers or heteroskedasticity, and also provide a more robust estimator in the face of departures from normality (Deaton, 1997; Koenker, 2005).

Using quantile regressions, log per capita household expenditure equations can be estimated conditional on a given specification for various percentiles of the residuals (e.g., 10th, 25th, 50th 75th or 90th) by minimising the sum of absolute deviations of the residuals from the conditional specification (see Chamberlain (1994)). It should be stressed that the precision of the parameter estimates in a quantile regression model is dependent on the density of points at each quantile. Specifically, the quantile regression coefficients may be more difficult to compute and the corresponding test statistics may have less statistical power at quantiles located at the bottom or the top ends of the conditional distribution, where the

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[24] 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.

density of data points tend to be relatively thin. [25]   Thus, coefficient for the minority groups at the more extreme quantiles should be treated with due caution.

In the current case, the quantile regression for the majority and minority sub-samples can be defined as:

$$y_m = x_m' \beta_{\theta m} + \mu_{\theta m} \tag{4}$$

$$y_e = x_e' \beta_{\theta e} + \mu_{\theta e} \tag{5}$$

If $Q_\theta(\cdot)$ is taken to denote the conditional θ^{th} quantile operator, then $Q_\theta(w_j|x_j) = x_j' \beta_{\theta j}$, where $\beta_{\theta j}$ is the unknown parameter vector for the θth quantile with θ representing the selected quantile of interest (i.e., 0.1, 0.25, 0.5, 0.75 and 0.9 in the current application) ; $\mu_{\theta j}$ denotes the error term, the distribution of which is left unspecified, but for which $Q_\theta(\mu_{\theta j}|x_j) = 0$ is assumed; and j is the subscript for the ethnic groups ($j = m, e$).

From equations (4) and (5) the conditional θth quantile of the distribution of PCE for the two groups are then expressed as:

$$Q_\theta(y_m) = E(x_m|y_m = Q_\theta(y_m))' \hat{\beta}_{\theta m} + E(\mu_{\theta m}|y_m = Q_\theta(y_m)) \tag{6}$$

$$Q_\theta(y_e) = E(x_e|y_e = Q_\theta(y_e))' \hat{\beta}_{\theta e} + E(\mu_{\theta e}|y_e = Q_\theta(y_e)) \tag{7}$$

where the 'hats' now denote quantile regression estimates and $E(\cdot)$ is the expectations operator. In the expressions (6) and (7), the characteristics are evaluated conditionally at the unconditional quantile per capita expenditure value and not unconditionally as in the case of the mean regression. The terms $E(\mu_{\theta j}|w_j = Q_\theta(w_j))$ are thus non-zero. From (6) and (7), the gap in per capita expenditure between the majority and minority groups at the θth quantile is defined as Δ_θ and this can be decomposed into three parts:

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[25] Accordingly, the sampling variances for the quantile regression coefficients are obtained using a bootstrapping procedure with 200 replications.

$$\Delta_\theta = \Delta\boldsymbol{\Omega}_\theta{}' \hat{\boldsymbol{\beta}}_{\theta m} + \boldsymbol{\Omega}_{\theta e}{}' \Delta\hat{\boldsymbol{\beta}}_\theta + \Delta\boldsymbol{R}_\theta \tag{8}$$

where $\Delta\hat{\boldsymbol{\beta}}_\theta = (\hat{\boldsymbol{\beta}}_{\theta m} - \hat{\boldsymbol{\beta}}_{\theta e})$ and $\Delta\boldsymbol{\Omega}_\theta = \boldsymbol{\Omega}_{\theta m} - \boldsymbol{\Omega}_{\theta e}$

with $\boldsymbol{\Omega}_{\theta m} = E(\boldsymbol{x}_m | \boldsymbol{w}_m = Q_\theta(\boldsymbol{w}_m))$ and $\boldsymbol{\Omega}_{\theta e} = E(\boldsymbol{x}_e | \boldsymbol{w}_e = Q_\theta(\boldsymbol{w}_e))$

and $\Delta\boldsymbol{R}_\theta = [E(\boldsymbol{\mu}_{\theta m} | \boldsymbol{w}_m = Q_\theta(\boldsymbol{w}_m)) - E(\boldsymbol{\mu}_{\theta e} | \boldsymbol{w}_e = Q_\theta(\boldsymbol{w}_e))]$

The first and second expressions on the right hand side of equation (8) are the quantile analogues to the differences in characteristics and differences in returns components of the conventional Blinder-Oaxaca decomposition.

Using mean characteristics in the computation of expressions [8] may provide unrepresentative realisations for the characteristics at points other than the unconditional mean to which they relate. Therefore, it is necessary to compute realisations of the characteristics that more accurately reflect the relevant points on the conditional household expenditure distribution. In order to address this issue, we use an approach originally suggested by Machado and Mata (2005) to derive the realisations for the relevant characteristics at different quantiles of the conditional household expenditure distribution. The procedure involves drawing 100 observations at random and with replacement from each of the majority and minority sub-samples. Each observation once ranked comprises a percentile point on the log per capita household expenditure distribution. The full set of characteristics for the observation at the θth expenditure quantile is then retrieved. This process is then replicated 500 times to obtain 500 observations at the selected θth quantile. The mean characteristics of these observations at each quantile are then used to construct the realisations for $\boldsymbol{\Omega}_{\boldsymbol{\theta m}}$ and $\boldsymbol{\Omega}_{\boldsymbol{\theta e}}$ used in equation [8]. Finally, the sampling variances for the constituent parts of [8] are computed in using the regression models' bootstrapped variance-covariance matrices.

3.2   Empirical results

The mean and quantile regression estimates for the two ethnic groups, using both mean regression and quantile regression approaches, are reported in Appendix 1.

The set of regressors covers household structure (household size, age structure composition of the household), household education levels, landholding characteristics (households' access to different types of lands), and commune characteristics (such as access to electricity, markets, post-offices, roads and schools, and the geographic region the commune is located in). 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, for

both mean and quantile regression, which is an important requirement, given the decomposition analysis undertaken in this study.

We now turn attention to the decomposition analysis contained in Table 9. The estimates reported in this table use the Blinder-Oaxaca decomposition of equation [3], assuming the majority coefficient structure prevails. The raw mean ethnic gap in per capita expenditures has risen by 15.4 percent between 1998 and 2008, and this increase is statistically significant (the absolute t-ratio corresponding to this point estimate is 2.3). Most of this increas occurred between 1998 and 2004, during which time the ethnic gap increased by 12 percent (0.113 log points). This is in broad agreement with the findings for the existing literature on the widening ethnic gap in Vietnam (see van de Walle and Gunewardena, 2001; Baulch *et al.* 2004; Hoang *et al.* 2007; Baulch *et al.,* 2008).

Using the framework in [3] with the mean regression approach, such widening gap is decomposed into 'differences in characteristics' (i.e., household and community characteristics) and 'differences in returns' to those characteristics. As ethnic minorities are not as well endowed with community, educational or physical assets as their majority counterparts, their welfare status is lower than that of the majority. Our decomposition results (Table 9) reveal that these 'differences in characteristics' account for from one-third to almost a half of the total ethnic gap. In an attempt to further decompose the 'differences in characteristics', we disaggregated this component into sub-groups. The differentials in household demographic structure, education levels and commune characteristics account, broadly in an equal share, for the overall endowment effect. However, different land-holdings between the majority and minority groups are found to narrow the endowment differential. The negative sign on the landholding terms in these mean decompositions probably reflects the greater experience and knowledge that ethnic minority peoples have in farming upland areas.[26]

Interestingly, the contribution of these differences in characteristics tends to increase over time. The differences in characteristics between the majority and ethnic minority accounted for 39 percent of the total ethnic gap in 1998, while these contributed up to 48 percent in 2006. This increase is statistically significant at ten percent level (i.e., t-ratio is 1.6537). So our findings suggest that the endowment gap is high and accounts for an increasing part of the majority–minority expenditure gap.

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[26] This is consistent with Engvall's (2006) findings for ethnic minorities in Lao PDR.

Table 9: Decomposition of the ethnic gap in household expenditures at the mean, 1998–2006

	1998	2004	2006
Total differential	**0.4112***	**0.5241***	**0.5540***
	(0.029)	**(0.016)**	**(0.054)**
Due to differences in characteristics	**0.1585***	**0.187***	**0.2650***
	(0.035)	**(0.023)**	**(0.054)**
Of which:			
− Household structure	0.0671***	0.1029***	0.0925***
	(0.005)	(0.007)	(0.007)
− Education	0.072***	0.0762***	0.0758***
	(0.006)	(0.004)	(0.004)
− Landholding	-0.0398***	-0.034***	-0.0184*
	(0.011)	(0.008)	(0.011)
− Commune or district effects	0.0592*	0.0419*	0.1152***
	(0.032)	(0.024)	(0.024)
Of which:			
Due to differences due in returns	**0.2527***	**0.3371***	**0.2890***
	(0.045)	**(0.028)**	**(0.029)**

Notes:

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

Standard errors are reported in parentheses. The effects of clustering and stratification are taken into account in the computation of these standard errors.

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

Sources: Own calculation based on VLSS98, VHLSS04 and VHLSS06.

More than half of the total majority–minority gap in per capita expenditure is attributed to 'differences in returns' (to the above characteristics). This means that returns to these characteristics are lower for the ethnic minority than for the Kinh-Hoa. There are several ways to explain these differences in returns. Unobserved factors, such as differences in quality of education, the quality and cost of infrastructure facilities or public services, provide one explanation for these differences. If there were better information on the quality of education or infrastructure, these differences would be reflected by the coefficients 'differences in characteristics'. But in practice, many features of quality are unobserved, so the difference in returns will include some differences due to these unobserved factors. Another way to explain these 'differences in returns', is as evidence of 'unequal treatment' of, or even discrimination against, the minorities. Section 3.3 will explore the reasons underlying the 'differences in returns' in details.

We now turn to a discussion of decomposition of the ethnic expenditure gap computed at selected points of the conditional log per capita expenditure distribution using expression [8]. The estimates for this exercise are reported for the three separate years in Table 10. The results at the median (50th percentile) show considerable differences compared to those at mean in Table 9. This suggests the influence of extreme observations on decomposition based on the mean regressions and lends a further justification for the use of the quantile regression approach in Table 10.

For all years, the point estimates for the raw ethnic expenditure gap an increase between the 10th and 90th percentiles, though the evolution of the increase is not monotonic in any of the three years. The portion of the overall gap accounted for by endowment differences is also fairly stable across the selected percentiles and, as with the mean regression analysis, comprises between one-third to a half of the relevant total raw gap in each of the three years. This implies that at least a half of the total gap in per capita expenditure between the majority and ethnic minority groups is explained by 'differences in returns'. In this regard, our results are consistent with those reported earlier by Baulch *et al.* (2008).

Table 10: Decomposition of the ethnic gaps in per capita expenditure at quantiles, 1998–2006

	10th	25th	50th	75th	90th
1998					
Total differential	0.4049***	0.4773***	0.4084***	0.5367***	0.6151***
	(0.031)	(0.024)	(0.024)	(0.026)	(0.043)
Due to differences in characteristics	0.1713***	0.1991***	0.1807***	0.1909***	0.2152***
	(0.025)	(0.028)	(0.029)	(0.029)	(0.063)
Due to differences in returns	0.2336***	0.2782***	0.2277***	0.3458***	0.3998***
	(0.037)	(0.035)	(0.041)	(0.037)	(0.08)
2004					
Total differential	0.482***	0.5865***	0.5941***	0.5524***	0.5485***
	(0.024)	(0.019)	(0.022)	(0.026)	(0.024)
Due to differences in characteristics	0.207***	0.2438***	0.2471***	0.1973***	0.200***
	(0.026)	(0.027)	(0.024)	(0.027)	(0.039)
Due to differences in returns	0.275***	0.3427***	0.347***	0.3551***	0.3485***
	(0.038)	(0.033)	(0.032)	(0.033)	(0.047)
2006					
Total differential	0.5084***	0.5727***	0.5049***	0.5817***	0.6076***
	(0.056)	(0.038)	(0.037)	(0.046)	(0.059)
Due to differences in characteristics	0.2583***	0.2491***	0.1699***	0.2129***	0.2763***
	(0.037)	(0.023)	(0.021)	(0.028)	(0.037)
Due to differences in returns	0.2502***	0.3236***	0.3349***	0.3688***	0.3313***
	(0.043)	(0.031)	(0.03)	(0.036)	(0.046)

Notes:

(a) The decomposition in this table uses the set of majority coefficients as the reference group for unequal treatment; see expression [8].

(b) The log per capita expenditure is regressed on a set of household characteristics and a set of commune characteristics;

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

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

Source: Own calculation based on VLSS98, VHLSS04 and VHLSS06.

Given the significance of 'differences in returns' in explaining the gap between the majority and the broadly defined ethnic minority group, there has been a lack of understanding in the current literature on the reasons underlying these differences. Previous studies (as above) have attributed this 'differences in returns' component to either unobserved factors or unequal treatment of (i.e, discrimination against) the ethnic minorities in Vietnam. However, the evidence for this remains inconclusive. In order to shed light on such 'differences in returns', this paper will use other data sources to examine the drivers of returns in a more explicit, and hopefully more satisfactory, manner.

3.3   Drivers of differences in returns

As discussed in Section 3.2, Oaxaca-Blinder decomposition results show that at least a half of the majority–minority gap in per capita expenditure can be attributed to differences in returns characteristics. This result needs to be interpreted with some caution because the difference in returns component of the decomposition 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 in all the VHLSS sites, but it is too hard and costly to do so on a large scale. Therefore, our explanation of the 'differences in returns' underlying the ethnic gap is based on the combination of results from both household data analysis and a host of participatory poverty assessments (PPAs) and anthropological research on ethnic issues in Vietnam, summarised in the World Bank (2009) and VASS (2009). In addition, the Baseline Survey of Programme 135 Phase 2 (P135-II) that was implemented in 400 of the poorest communes will also be used in places.

3.3.1   Language and cultural issues

When seeking 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, and some traditional cultural practices, are emphasised 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 underlay the difficulties experienced by ethnic people in accessing services and information. According to the 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 preventing the ethnic minorities from benefiting from mainstream economic development – there are also other socio-cultural factors. As discussed in World Bank (2009), these may include factors such as:

community levelling 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 carry out as 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 the welfare status of ethnic minorities, we estimated a simple regression in which the per capita expenditures of ethnic minority-headed households were regressed on the set of the explanatory variables as used in the equation [3], augmented by matrilineal practice, religion and Vietnamese language ability.[27] 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 ten 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 ten to 12 percentage point reduction in the level of per capita expenditure for ethnic minority-headed households.[28] This finding is consistent with empirical results in the literature. For instance, Grafton et al. (2007) show that linguistic barriers to communications reduce productivity and capital accumulation.

3.3.2 *Returns to land and land quality*

Ethnic minorities possess more land than the Kinh and Hoa, and their land holdings have tended to increase over time. However, the ethnic groups' land bundle consists mostly of forest land and low quality, unirrigated annual crop land, while the Kinh-Hoa have much more water surface land and their crop land is usually irrigated and of higher quality (see Table 11). In 2004 and 2006, while more than 80 percent of the annual cropland of the Kinh and Hoa was irrigated, only 44 percent of ethnic minority land was irrigated. At the start of the land reform in 1993, the average ethnic minority-headed household possessed 63 percent more land (of all types) compared to that of the Kinh-Hoa headed household. After 14 years, this advantage increased to 154 percent. This advantage is most pronounced for forestry land. On average, ethnic minority-headed households possess ten times more forestry land than majority-headed households.

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[27] These variables are only collected in some rounds of the VLSSs and VHLSSs, and so could not have been included as explanatory variables in the mean and quantile regressions underlying their decomposition analysis.

[28] 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.

Table 11: Land endowments of Kinh-Hoa and ethnic minorities households (m²)

	Annual crop		Perennial	Forestry	Water surface	Others
	Irrigated	Non-irrigated				
1993						
Rural average	2040.51	2407.56	710.07	174.75	102.54	271.88
Kinh and Hoa	2232.32	1973.53	669.34	70.87	109.78	174.87
Ethnic minorities	942.55	4891.98	956.2	802.61	58.79	858.23
1998						
Rural average	2772.53	1109.21	1197.04	1005.89	1026.44	1769.77
Kinh and Hoa	2831.35	918.91	1148.55	422.85	1205.84	1269.54
Ethnic minorities	2461.23	2116.39	1453.68	4091.7	76.96	4417.28
2004						
Rural average	2920.11	1071.3	1034.78	1072.08	306.45	527.45
Kinh and Hoa	2883.71	584.24	940.76	496.87	336.92	481.36
Ethnic minorities	3133.38	3924.61	1649.59	4833.49	107.25	828.79
2006						
Rural average	2998.05	1117.23	1215.63	1207.33	287.01	364.16
Kinh and Hoa	2963.4	545.6	1172.25	512.38	315.84	336.18
Ethnic minorities	3182.47	4159.4	1474.95	5361.05	114.66	531.43

Source: Own calculations from the VLSS 1993, 1998, and VHLSS 2004, 2006.

Although the ethnic minorities possess more land than the majority, and achieve higher returns to their land compared to their Kinh-Hoa counterparts, there are many factors that place them at a disadvantage in making use of their land endowments. First, their knowledge about their rights over land is less than the Kinh-Hoa. Historically, the ethnic minorities used to live in land tenure systems in which community-managed land was not commoditised (Vuong, 2001). The land reforms in Vietnam, which aim to allocate land to households, have proved to be a big success for development and poverty reduction in Vietnam (Ravallion and van de Walle, 2008). Yet, to many ethnic people, understanding and practising 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.

Second, ethnic customs and conventions restrain some ethnic people from exercising their rights over land. According to Vuong (2001: 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 practise 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). Much less forestry land has also been allocated (to predominantly ethnic minority households) than is the case with paddy land. Using data from the National Land Database, Brandt *et al.* (2006) find that 95 percent of paddy land had been allocated to households in 2003, compared to just under 25 percent of forestry land.[29] More recent figure from the Ministry of Agriculture and Rural Development suggests that only 19.1 percent of all forest land was allocated to households in 2007. Not being able to secure or use their land use rights well has prevented the minorities from using land as collateral, thereby being able to seize opportunities to move out of the agriculture sector or to enhance their productivity and efficiency in the agricultural sector.

In spite of higher returns to land which ethnic minority groups achieve in absolute terms,[30] the ethnic minorities live in places where 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, Oxfam and Action Aid, 2008; World Bank, 2009). Rice varieties which are more appropriate to the soil conditions in the mountains are often too expensive (VASS, 2009). These call for efficiency-oriented planning and local context-based support from the government.

Thus, given better land quality, the Kinh and Hoa have generally been more successful in translating their land assets into higher returns under Vietnam's new market economy. The Kinh-Hoa have diversified more within the agricultural sector, relying more on industrial and perennial crops and less on low-value staple crops, and have often supplemented 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). Pham *et al.* (2008), using data from the P135-II Baseline Survey, reported that both the Kinh and Hoa-headed and the minority-headed households in P135-II communes allocated about 54 percent of their land endowments for paddy production. Minority-headed households then used most of the remaining agricultural land for low-productivity food crops, while the Kinh and Hoa-headed households allocated their remaining land to industrial crops. So, while food crop were the most important source of agricultural income for the ethnic minorities after rice, the Kinh and Hoa households relied on industrial crops to supplement their incomes from rice production.

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[29] Some 35 percent of the remainder was owned by economic organisations (such as State Forest Enterprises) and another 24% percent by others (which includes the military).

[30] These higher absolute returns may be explained by the fact that the minorites have little choice but to work hard on their land (van de Walle and Gunewardena, 2001:198).

3.3.3   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. As noted in Section 2, however, data on education quality is 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 expenditures show that, after controlling for other household and community characteristics, the returns to education of both the majority and minority groups are positive. Furthermore, they favour the Kinh/Hoa group at all schooling levels with the exception of primary (see Appendix 1).[31] These results are similar to those of Baulch *et al.* (2008), who regressed per capita expenditure on a set of explanatory variables, including the educational attainment of the most educated household members for the Kinh-Hoa and the minority groups for the period 1993–2004. Their results also show that returns to education are higher for the Kinh-Hoa households than the ethnic minority-headed households in most cases. The same results are also observed in van de Walle and Gunewardena (2001) for 1993 and Nguyen *et al.* (2009) for 2002, 2004 and 2006. This suggests that a generalised 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 non-farm sector). However, as highlighted in Section 2, the ethnic minorities are much less likely to be employed as wage workers and are generally less mobile than the Kinh-Hoa. Furthermore, not only is access to wage income limited for ethnic minorities, but the few ethnic minority workers who are wage employees are subject to lower returns than the Kinh-Hoa 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 for Kinh-Hoa wage workers.

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[31] Note that these, and most other studies', estimates of returns to education by ethnicity are very sensitive to commune effects and show a strong correlation between education, location and labour market conditions.

3.3.4   Returns to infrastructure

Access to infrastructure and services has improved greatly throughout the country, for both the Kinh and Hoa and for the ethnic minorities (see Table 12). By 2006, 95 percent of communes had access to mains electricity, compared to 62 percent in 2002. At 100 and 95 percent, respectively, figures were much higher among the majority than the minorities group. But the change over time was similar in both cases. The proportion of communes having factories/enterprises located within ten kilometres also increased slightly for both groups. The distance measured in kilometres from the village has also fallen considerably. For instance, in 2006, the average distance to the nearest hospital was 4.63km, against 3.68km for the majority – compared to 19.04km and 10.22km, respectively, for the year 2002.

Table 12: Access to infrastructure by ethnicity

	2002		2006	
	Majority	**Minority**	**Majority**	**Minority**
Proportion of communes that have				
Factories/enterprises within 10km	71%	33%	74%	40%
Mains electricity	98%	62%	100%	95%
Distance (kms) from the village to				
Closest hospital	10.22	19.04	3.68	4.63
Primary school	0.87	1.77	0.73	1.00
Lower secondary school	1.93	3.68	1.44	2.23
Upper secondary school	5.65	11.42	4.98	10.12
Road that cars can travel on	0.81	0.89	0.6	0.81
Public transport	2.96	11.5	1.93	6.16
Post office	2.16	8.62	1.8	4.84

Source: Own calculations based on VHLSS02 and VHLSS06.

This result is further collaborated by findings in the 2008 PPAs, recording the remarkable improvement in the connection of the poor, especially ethnic minorities living in remote communes, to the outside world over the past three to five years. Many roads to remote hamlets, where many ethnic minorities live and which were virtually isolated from the outside world only a few years earlier, have recently been built. The people have been connected, both tangibly, through the improved transport system of roads and bridges, and intangibly, through media and communications systems (such as radio, telephones, television and even the internet). Improved communications are an important pre-condition for enhancing market access for people living in remote areas. As a consequence of improved communications, commodity exchange and trading has become easier and less costly, which encourages people in formerly remote communes to expand their production and engage in trade, which in turn raises their incomes. In many areas, the people who used to farm largely for their own consumption have now started producing for markets, thereby diversifying and increasing their household incomes (VASS, 2009). However, as noted above, the ethnic minorities have

tended to focus on lower value staple crops (though some of these, such as maize, are becoming increasing marketised).

Investment in infrastructure does, however, also generate inequalities among some local groups according to the recent PPA results. For instance, most mountainous fields in the research sites of Thuan Hoa, Phan Dien and Binh An cannot be connected to irrigation sources as a consequence of their high elevation. This leads to increasing inequalities among ethnic groups, as most Kinh households farm lower fields, while ethnic minority households farm upland fields. Demand for irrigation works on mountainous fields, which are vital to local farmers, has barely been met (VASS, 2009). Furthermore, the new government policy (Decree No. 154/2007/ND-CP, issued 22 October 2007) of providing free irrigation also contributes to widening the ethnic gap, as this policy works mainly to the advantage of the Kinh farmers, who tend to live and engage in irrigated farming in the deltas.

3.3.5   *Misconceptions and stereotyping of ethnic minorities*

A final source of the 'differences in returns' is very difficult to measure quantitatively 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 disempower 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) suggest that ethnic minorities are frequently considered as less developed, and at times less 'civilised' or more 'backward', than the Kinh. For several reasons, ethnic minorities have long been considered 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' with 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 programmes 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 'civilisational ladder' and to facilitate their 'catching-up' with the Kinh majority or even promote 'Kinh-isation' (McElwee, 2004). 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 advantage of opportunities brought by *doi moi*, in the same way as the Kinh-Hoa 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 law. 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

caste is an issue (such as India). These are among the most important grounds cited by 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 is widely recognised, it could effectively decrease the participation of ethnic minorities in society. More seriously, it may also cause disinclination of authorities to listen and thus respond to ethnic minorities, as they are considered as less 'civilised' 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, the 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 creditworthiness to obtain large loans, and would therefore direct Ede to the Social Policy Bank. The belief of bankers that minorities could not 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 out a large loan, while many more Kinh have. Through it is not possible to generalise 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.

4   Policies for ethnic minority development

Vietnam has a large number of policies and programmes for ethnic minority development. These programmes and policies are too numerous and fragmented to describe in detail here, but Appendix 7 gives details of the objectives, target groups, components and budgets of the main policies and programmes that affect the ethnic minorities. Appendix 8 provides further information on the relevant government decisions, decrees and resolutions governing these policies and programmes. As noted by Nguyen and Baulch (2007), Vietnam's policies and programmes have targeted ethnic minorities in three ways: based on location, household economic status, and ethnic minority group membership. The first approach, used by Programme 135, price and transportation subsidy policies and some components of Programme 143, target communes in extremely difficult (Region 3) areas, without distinguishing between the ethnicity of households living in these communes. Regional programmes, such as Programmes 168, 173 and 186, work in the same way, though at a more aggregated level, and have proved useful when clear divisions into geographic regions

based on different production, settlement and social conditions can be identified. A second approach targets households based on their economic status. For example, the successors to Programme 143, and many education and health exemptions, specifically target households that are classified as poor or hungry. Some programmes (such as Programmes 134 and 139) have added ethnicity as an additional criterion for poor households to qualify for benefits and exemptions. A third approach, used by the Programme to Support Ethnic Minority Households in Especially Difficult Circumstances and some provincial initiatives, targets specific ethnic minority groups, typically those having very low populations and living standards. Over time, as generalised economic growth raises living standards throughout Vietnam, a shift away from location-based targeting, to policies and programmes in which the ethnic minorities and other poor groups are specifically targeted, appears to be occurring (Nguyen and Baulch, 2007).

In the remainder of this section, we reflect on the policy conclusions which may be drawn from the preceding analysis and make some tentative suggestions as to how existing programmes and policies for ethnic minority development might be extended, modified or rationalised. We focus first on the broad area of growth and distribution, in particular how the growth process can be made more inclusive for the minorities. Three specific areas in which the ethnic minorities lag the Kinh and Hoa (nutrition, education and employment) are then discussed. Finally, the role of integrated development programmes is briefly discussed.

4.1   Growth and distribution

As explained in Section 2, while the living standards of the ethnic minorities have clearly improved over the last decade, it is also clear that the minorities have benefited less from Vietnam's dramatic economic growth than the Kinh and Hoa. In part, this is due to the widening disparities in living standards between the lowlands and uplands as, with the exception of the Khmer and Cham, the ethnic minorities remain overwhelmingly upland residents. However, it would be a mistake to ascribe the poverty of the ethnic minorities entirely to geography (with the policy focus on improving infrastructure and public services in upland areas that this is usually taken to imply). First, the questions of why more ethnic minorities have not migrated to urban areas (plus nearby industrial zones), along with why the minorities are under-represented in terms of wage jobs (especially outside the public sector), needs to be addressed. Second, why is it that Kinh and Hoa workers generally earn substantially higher returns to their human and physical capital, while their households enjoy better access to public services, even when they live in the same upland communes as the minorities? In short, how can Vietnam's future growth become more inclusive for the ethnic minorities?

The decomposition analysis conducted in Section 3 shows that ethnic minority households with the same endowments of education, land, capital and other assets receive returns that are on average a half to two-thirds lower than Kinh-Hoa people who live in communes with

similar characteristics. The magnitude of these differences in returns was also confirmed using quantile regressions. However, with the possible exception of the price and transportation subsidies paid in poor communes, all the ethnic minority policies and programmes that Vietnam has adopted focus on improving the endowments of minority households and the communes in which they live (CAF-IDS, 2008; Nguyen and Baulch, 2007). Very few policies or programmes address the lower returns to endowments which our empirical analysis shows the ethnic minorities receive.

Some of the measures which we believe could help to rectify this situation include:

- Developing agricultural extension systems and markets that are appropriate to the needs and crops grown by the minorities;[32]

- Making the laws and regulations governing the control and use of forest land more inclusive, while continuing the reform of the State Forest enterprises;

- Simplifying procedures for the minorities to gain commercial loans and (unsubsidised) micro-credit for both agricultural and non-agricultural activities;

- Pro-upland regional (and transportation) policy;

- Targeted interventions in education and health (see the following sub-sections).

We now turn to some of the more specific policies that could help to counter ethnic minority disadvantage in the nutrition, education and employment sectors.

4.2 Nutrition

The increasing incidence since 1998 of wasting among children under 24 months of age throughout Vietnam, including in urban areas, despite rapid and reasonably broad-based growth, is very worrying. The high levels of stunting among children over 24 months, and especially among ethnic minority children, is a further cause for concern. However, contrary to popular perception, under-nutrition is not simply the result of low incomes and inadequate food intake. According to a recent global review, the two most important factors in under-nutrition are: (i) inadequate knowledge about the benefits of exclusive breastfeeding, complementary feeding practices and micronutrients; and (ii) the lack of time women have for child care and themselves during pregnancy (World Bank, 2006).

Since the most damaging consequences of under-nutrition occur during pregnancy and the first two years of life, governments with limited resources are best advised to focus their actions on the 'window of opportunity' between conception and 24 months of age (World

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[32] See Hoang et al. (2004) for a comprehensive diagnosis of ethnic minority and gender issues in agricultural extension in Vietnam.

Bank, 2006). Among the measures which we believe would help to raise the nutritional status of Vietnam's population, especially ethnic minority children are:

- A campaign to promote exclusive breastfeeding of infants under six months old, coupled with extension of maternity leave for women in wage employment from four to six month.

- The introduction of a comprehensive programme for the fortification of basic foods, such as cooking oil, flour, fish and soy sauce, with Vitamin A, iron, selenium and zinc. The development of new varieties of bio-fortified rice and maize, along perhaps with sweet potato and cassava, could also do much to improve micronutrient intake in Vietnam.[33]

- The provision of free nutritional supplements to women of childbearing age.

- Measures to improve sanitation and increase the provision of clean water, especially in remote rural communes and low income urban areas.

The objective of such measures should be to reduce nutritional difference between the majority and minorities groups, while transforming the nutritional status of Vietnam's entire population over the next ten years. The National Nutrition Programme in Thailand, which helped to reduce moderate and severe malnutrition there by more than three-quarters in ten years (World Bank, 2006), demonstrates what can be achieved by concerted and coordinated nutrition policies in a single decade.

4.3 Education

As with most issues connected with ethnic minority policy in Vietnam, tackling the problem of the low levels of education attained by most ethnic majority children, together with its generally poor quality, requires tackling several interlocking phenomena.

- To increase and maintain enrolments at the primary school level – in particular the transition from village classrooms to the main commune primary school in mountainous areas – it is clearly necessary to increase the number of school branches and the accessibility of the main commune schools (via better intra-commune roads and transportation). In the most remote mountainous areas, the extension and improvement of 'community semi-boarding schools' (*trường bán trú dân nuôi*), along with more flexible age-enrolment criteria, also have their part to play in increasing ethnic minority participation in grades 3 to 5. Assisting ethnic minority children to be able to learn effectively in Vietnamese is also crucial. While the

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[33] See www.harvestplus.org. Unfortunately, Vietnam is not one of Harvest Plus's target countries in Asia.

government is committed to creating 'conditions for ethnic people to learn to speak and write in their own language to maintain and develop their ethnic culture, and easily grasp knowledge in the school and other education institutions' (Article 7.2, The Education Law 2005), ethnic children currently have little access to genuinely bilingual education (Kosonen, 2004; MOET-UNICEF-UNESCO, 2008). Providing instruction in both Vietnamese and ethnic minority languages is particularly important in the first two or three grades of primary school in mountainous areas. The experiences of some international NGOs with child-centred methodologies and village classroom assistants (e.g., Oxfam GB in Lao Cai and Tra Vinh, Save the Children UK in Quang Ninh and Dien Bien) are well worth reflecting on here.

- To ease the transition of ethnic minority and other poor children from primary to lower and then upper secondary school, multiple measures are also necessary. The recent scholarship programmes for disadvantaged ethnic minority children introduced by MOET (with ADB funding) has an important role to play in encouraging children to make the transition and remain in secondary school. For ethnic minority girls, the importance of personal safety and separate and hygienic sanitation facilities also deserves to be stressed, especially at boarding school level (MOET-UNICEF-UNESCO, 2008). If carefully and appropriately designed, conditional cash transfer programmes can be designed. These have the potential to provide a major incentive for ethnic minority and other parents to keep their children in school. While the leading examples of the majority of such programmes come from Latin America (e.g. *Progressa* and *Oportunidades* in Mexico and the *Bolsa Familia* in Brazil), there are more focused and less complex Asian examples of conditional cash transfer programmes that are well worth Vietnam studying.[34]

- So few ethnic minority young people progress to education at the post-secondary level, in particular, to colleges and universities that it is clear that a major initiative is needed here. While the relatively recent abolition of separate streams for Kinh and ethnic minority students in the major colleges and universities is to be welcomed, the role of the three ethnic minority pre-universities is still essential to facilitate the transition of ethnic minority students to colleges and universities. It is also clear that the scale of the nomination (*cử tuyển*) system is insufficient to make much of a dent into the dominance of Kinh, and to a lesser extent Hoa and Tay, students at the post-secondary level (Nguyen and Baulch, 2007).[35]

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[34] See, in particular, Filmer and Schady (2008) on Cambodia, and Ahmed (2005) on Bangladesh. A recent World Bank Policy Report (Fiszbean and Schady, 2009) provides a broad overview of conditional cash programmes throughout the developing world.

[35] The number of ethnic minority students nominated to colleges and university tripled from 689 in 1998 to 1,709 in 2005 (Bui, 2006). This translates into 40 to 50 higher education places per province a year, although some provincial Departments of Education report being able to nominate almost twice this number of students. However, these places represented just 9.2 percent of the upper secondary

Finally, it is important to remember that one of the major reasons cited for school drop-outs throughout Vietnam, but especially in ethnic minority areas, is poverty itself. Faster and more equitably distributed economic growth therefore also has an important role to play in continuing to increase Vietnam's educational standards over the coming years.

4.4   Employment

The quantitative and qualitative data reviewed in Section 2 indicates that ethnic minorities are much less likely to be waged or salaried employees than the Kinh-Hoa. Ethnic minority workers also receive lower remuneration and less favourable benefits than Kind and Hoa workers. These trends have been confirmed in a recent decomposition study of wage employment using the VHLSS by Pham and Reilly (2009). As noted in Section 3, lurking behind these statistics and studies, lies the highly contentious issue of whether the ethnic minorities experience 'unequal treatment' relative to the Kinh and Hoa. While the case for the existence of 'discrimination' against the ethnic minorities is much less clear than in Latin America and South Asian, the econometric evidence shows consistently and robustly that the ethnic minorities receive lower returns to their education and other assets. We explored the drivers of these differences in returns in Section 3.3, but this analysis raises almost as many questions as it answers. For example, is the reason that the minorities have less access to wage jobs, for example, purely the result of their lower education levels and Vietnamese language skills, and lack of urban networks? Or do other factors, such as the schools and colleges they have attended, the types of friends and family contacts they have, or the way they speak Vietnamese, also influence their ability to access wage employment? If the latter is the case, then there may be a case for adopting one or more of the policies for enhancing minorities returns that have been adopted in other countries (see Box 1). However, it is also important to note that international experience suggests that the costs of poorly designed or over-complex equal opportunity and legislation and affirmative action programmes are high (Braunholz-Speight, 2008; Heyer and Jayal, 2009).

On the other hand, if the inability of the minorities to access wage employment is due principally to the quantity and quality of their education, then the measures mentioned above to improve ethnic minority education should receive priority.

Measures to improve the mobility of ethnic minority workers are also important for improving their employment opportunities. As noted by Bryceson *et al.* (2008), in Vietnam this is now less an issue of improving road access, and more one of improving access and ability to pay for motorised transportation. It is also important to realise that, like improved irrigation and

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places in the boarding system and only 0.65 percent of the ethnic minority pupils in the upper-secondary schools in 2005.

other infrastructure provision, better road access has differential impacts on different population groups, and is'likely to have the least effects on the poor' (Bryceson *et al.* 2008: 276). The ethnic minorities' lack of contacts and social networks in urban and peri-urban areas, is also likely to detract from their ability to obtain waged employment. Finally, it is possible that some ethnic minorities groups are poorly informed about the recent reforms to the household registration (*ho khau*) system, and this lack of knowledge restricts their geographic mobility. Such information is likely to be strongly associated with lack of proficiency in the Vietnamese language.

In all events, it is important to realise that attaining employment parity for the minorities requires multiple barriers to be overcome and is likely to take a substantial time to achieve.

Box 1. Policies to enhance ethnic minority employment

Internationally, two broad sets of policies have been used to promote greater wage employment and economic integration of ethnic minority (or indigenous) groups. These are:

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

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* employment in different sector together with (joint) ownership of companies. 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.

Source: Adapted from Braunholz-Speight (2008) and CAF-IDS (2008)

4.5   Integrated rural development programmes

Given the interlocking nature of the disadvantages which many ethnic minorities living in mountainous areas experience, integrated rural development programmes (IDPs) have a natural appeal, especially in rural areas. There have been a number of government and donor-sponsored IRDPs (including Programmes 168, 173 and 186, the Vietnam Sweden Mountain Rural Development Programme in the 1990s, the Northern Mountains Poverty Reduction Project, ADB projects in Central Vietnam and IFAD projects in Bac Kan, Cao Bang and elsewhere). Programme 135 is also informed by an IDP perspective, although in practice, it was and still is largely focused on improving road access and infrastructure

provision within Vietnam's poorest communes. Concerns that are commonly expressed about IRDPs in other countries are that they are complicated to administer, costly and time-intensive, thereby posing challenges to the capacity of the decentralised bureaucracies that are usually chosen to implement them (Kumar, 1987). In other countries, bureaucracies have also been successful in capturing large shares of the economic gains generated by IRDPs (Ruttan, 1975). Recent experience in Central Asia, Latin America and the Middle East suggests that target communities, and not just national and regional governments, and village leaders must have true ownership over the IRDP process, along with the capacity to sustain and managed new infrastructure investments (USAID, 2006). Similarly, within Vietnam, a recent review of the Northern Mountains Poverty Reduction Project found that tailoring public information to individual local circumstances and awareness-raising are essential if there is to be effective community participation in these projects (World Bank, 2008). Furthermore, concerns have been expressed regarding programme capture by certain less disadvantaged groups. Finally, because they operate in some areas but not others, IDPs may actually increase inequality between different areas and ethnic groups.

For all these reasons, although both the 'joined-up development policies' and improving infrastructure in remote areas are important, we recommend a cautious approach to the adoption of IDPs as a 'panacea' for ethnic minority development.

5   Some concluding remarks

The scale and depth of ethnic minority poverty in Vietnam presents one of the major challenges to Vietnam achieving the targets for poverty reduction set out in the Socio-Economic Development Plan, as well as the Millennium Development Goals. As Section 2 of this paper demonstrates, ethnic minority poverty in Vietnam is multi-dimensional and increases cumulatively with the life course. This is the result of the complex interplay of several overlapping layers of disadvantage, which start *in utero* and continue until adult life. Counteracting such disadvantages requires multiple interventions coordinated across a number of sectors, which pose complex implementation challenges in Vietnam's multi-layered system of government. Nonetheless, we believe that there are certain initiatives in the nutrition and education sectors (e.g., the bio-fortification of staple foods, provision of nutritional supplements to women of childbearing age in mountainous areas, the development of weekly boarding schools, and the extension of simple conditional cash transfer/scholarship programmes) that are relatively simple to implement and which would make an important difference to the life chances of ethnic minority children. Counteracting the disadvantages which ethnic minority people face later in life, especially improving their rural livelihoods and access to wage employment, is more complex. In the agriculture and forestry sectors, extension systems which are sensitive to the farming systems and tenure practices of the different minorities require development. Improving infrastructure in the remote villages in which the smaller and more disadvantaged ethnic groups live, also has its role to play in improving the returns they receive to their assets. However, given the extensive investments which have been made here in recent years, the importance of further investments in infrastructure should not be overstated. In the wage employment field, further work is needed, exploring the extent to which ethnic minority workers experience 'unequal treatment', or whether their clear inability to access wage jobs outside the public sector is a function of their education (combined, perhaps, with 'educational screening'), networks and Vietnamese language ability. Finally, the importance of promoting growth that is geographically broad and socially inclusive is essential. For without a more equitable pattern of growth, the current disparities between the majority Kinh and Hoa and the ethnic minorities are sure to continue growing.

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Appendix

Appendix 1: Changes in stunting and wasting rates by ethnic category, 1998-2006

	Stunting			Severe stunting			Wasting		
	2006	1998	Two sample mean comparison test P-value	2006	1998	Two sample mean comparison test P-value	2006	1998	Two sample mean comparison test P-value
Kinh & Hoa	33%	46%	0.0000	13%	13%	0.0000	12%	12%	0.0000
Khmer & Cham	21%	37%	0.0000	11%	14%	0.0747	7%	13%	0.0004
Tay-Thai-Muong-Nung	45%	40%	0.0000	18%	15%	0.0000	13%	9%	0.0000
Other Northern Uplands	51%	55%	0.3115	32%	26%	0.1047	11%	7%	0.0021
Central Highlands	59%	52%	0.0000	26%	27%	0.7355	16%	14%	0.0000

Source: Own calculations based on VLSS98 and VHLSS06

Appendix 2: Nutrition indicators for children under five by sex, 1998 and 2006

	< 24 months						>=24 months					
	VLSS98			VHLSS06			VLSS98			VHLSS06		
	Boys	Girls	Group mean comparison test P-value	Boys	Girls	Group mean comparison test P-value	Boys	Girls	Group mean comparison test P-value	Boys	Girls	Group mean comparison test P-value
Urban												
stunting	22%	19%	0.0029	20%	11%	0.0000	27%	24%	0.0000	26%	24%	0.0011
severe stunting	7%	7%	0.6929	8%	2%	0.0000	6%	5%	0.0776	9%	11%	0.0000
wasting	15%	9%	0.0000	19%	9%	0.0000	7%	8%	0.0336	10%	8%	0.0000
N	84	87		74	61		154	144		127	131	
Rural												
stunting	37%	31%	0.0000	33%	23%	0.0000	54%	51%	0.0000	40%	42%	0.0000
severe stunting	13%	11%	0.0000	19%	7%	0.0000	16%	17%	0.0000	16%	15%	0.0365
wasting	12%	11%	0.0000	19%	11%	0.0000	11%	13%	0.0000	12%	9%	0.0000
N	309	277		277	250		550	544		539	497	

Source: Own calculations based on VLSS98 and VHLSS06

Appendix 3: Nutrition indicators for children under five by sex, 1998 and 2006 (with two samples mean comparison)

| | < 24 months | | | | | | >=24 months | | | | | |
| | boys | | | Girls | | | Boys | | | Girls | | |
	1998	2006	Two sample mean comparison test P-value	1998	2006	Two sample mean comparison test P-value	1998	2006	Two sample mean comparison test P-value	1998	2006	Two sample mean comparison test P-value
Urban												
stunting	22%	20%	0.0489	19%	11%	0.0000	27%	26%	0.1390	24%	24%	0.6679
severe stunting	7%	8%	0.0548	7%	2%	0.0000	6%	9%	0.0000	5%	11%	0.0000
wasting	15%	19%	0.0004	9%	9%	0.9938	7%	10%	0.0000	8%	8%	0.8439
N	84	74		87	61		154	127		144	131	
Rural												
stunting	37%	33%	0.0000	31%	23%	0.0000	54%	40%	0.0000	51%	42%	0.0000
severe stunting	13%	19%	0.0000	11%	7%	0.0000	16%	16%	0.8084	17%	15%	0.0000
wasting	12%	19%	0.0000	11%	11%	0.0144	11%	12%	0.0000	13%	9%	0.0000
N	309	277		277	250		550	539		544	497	

Source: Own calculations based on VLSS 1998 and VHLSS 2006

Appendix 4: Gross and net enrolments rates for rural areas, 1998 and 2006

	Net Enrollment Rates			Gross Enrollment Rates		
	Primary	Lower Secondary	Upper Secondary	Primary	Lower Secondary	Upper Secondary
1998						
Kinh and Hoa	93.9	64.1	26	116.2	81.7	35.3
Minorities	83.1	36.1	7.4	124.7	57.4	15.7
Of which						
Khmer and Cham	78.6	20.9	7.4	115.6	38.1	13.1
Tay-Thai-Muong-Nung	95.5	53.4	10.3	128	77	22.4
Other Northern Uplands	78.2	19.5	3.3	121.8	47.4	11.8
Central Highlands	52.1	2.7	1.3	123.6	10.1	1.3
Others	64.1	6.7	8.9	131.3	25.8	8.9
Rural average	91.7	59	22.9	118	77.3	32.1
2002						
Kinh and Hoa	91.7	77.3	42.8	115	93.2	59.7
Minorities	82.4	50.3	18.3	120.5	75.4	31
Of which						
Khmer and Cham	74.3	46.5	10.8	115.1	65.7	18.6
Tay-Thai-Muong-Nung	90.9	66	28	123	93.5	45.6
Other Northern Uplands	78.5	27.9	8.3	125.1	43.9	12.8
Central Highlands	69.2	30	5.6	113	59.6	14.2
Others	97	40.5	0	132.9	90.4	16.2
Rural average	90	73	39.1	116	90.3	55.3

	Net Enrollment Rate			Gross Enrollment Rate		
	Primary	Lower Secondary	Upper secondary	Primary	Lower Secondary	Upper Secondary
2004						
Kinh and Hoa	93.9	80.1	50.5	106.8	93.7	67.7
Minorities	84.3	56	26.5	114.3	85.9	45.8
Of which						
Khmer and Cham	85.8	50.7	13.7	127.8	70.1	39.8
Tay-Thai-Muong-Nung	91.6	71.4	36.3	114.8	103.9	55.1
Other Northern Uplands	78.9	33.3	19.3	114.1	62.2	38
Central Highlands	74.5	32.3	10.4	108.6	63.4	25.7
Others	67.5	45.7	0	121	68.8	25.1
Rural average	92	75.9	46.5	108.3	92.4	64.1
2006						
Kinh and Hoa	93.4	84.4	58.7	102.2	95.4	73.3
Minorities	85.3	63.6	30.2	107.5	89	51.7
Of which						
Khmer and Cham	90.6	63.3	9.8	122.2	77.4	18.6
Tay-Thai-Muong-Nung	88.8	79.1	43.1	102.3	104.4	73.2
Other Northern Uplands	80.8	47.2	15.8	108.1	76.8	27
Central Highlands	79.3	40.6	17.2	110.8	70	33.7
Others	98.6	48	42.2	117.1	69.2	52.8
Rural average	91.6	80.4	53.6	103.4	94.2	69.4

Appendix 5: Transfers as a percentage of beneficiary household expenditures

	Education assistance[+]	Social assistance (A)	Social insurance (B)	Social protection payments (A+B)
of which :				
Khmer and Cham	0.0	0.9	0.1	7.1
Tay-Thai-Muong-Nung	5.1	4.8	12.0	22.6
Other Northern Uplands	0.0	19.2	18.7	27.3
Central Highlands	2.5	3.5	5.0	15.1
Others	9.9	1.4	0.0	3.3
Rural average	2.0	5.3	11.1	20.1
2006				
Kinh and Hoa	0.4	18.6	45.1	31.1
Ethnic minorities	2.2	16.6	45.4	26.5
of which				
Khmer and Cham	0.6	30.1		30.1
Tay-Thai-Muong-Nung	1.5	19.6	43.8	31.4
Other Northern Uplands	2.2	10.8	64.3	21.1
Central Highlands	3.3	12.6	43.0	14.6
Others	10.7	18.2	42.7	36.5
Rural average	0.9	18.3	45.1	30.4

Source: Own calculations based on VLSS98 and VHLSS06

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Appendix 6: OLS Estimates for log per capita expenditure regression models of the majority and minority groups, 1998-2006

	1998		2004		2006	
	Majority	Minority	Majority	Minority	Majority	Minority
Household size	-0.0577***	-0.0692***	-0.0483***	-0.0574***	-0.0393***	-0.0806***
	(0.01)	(0.012)	(0.008)	(0.011)	(0.01)	(0.01)
Proportion of children aged from 7 to 16 years	0.397***	0.5735***	0.2818***	0.474***	0.2692***	0.5023***
	(0.066)	(0.124)	(0.059)	(0.108)	(0.06)	(0.103)
Proportion of male adults	0.5968***	0.4642***	0.7953***	0.7265***	0.7014***	0.574***
	(0.09)	(0.101)	(0.07)	(0.154)	(0.072)	(0.12)
Proportion of female adults	0.4769***	0.5092***	0.6711***	0.5904***	0.65***	0.7573***
	(0.082)	(0.164)	(0.073)	(0.156)	(0.074)	(0.13)
Household type 2: parents and one child	-0.0446	-0.0808	-0.0372	-0.0497	-0.0257	0.1756**
	(0.042)	(0.102)	(0.034)	(0.101)	(0.032)	(0.091)
Household type 3: parents and two children	-0.1009**	-0.1164	-0.0209	-0.1609*	-0.0685**	0.0632
	(0.043)	(0.105)	(0.036)	(0.093)	(0.036)	(0.09)
Household type 4: parents + > three children	-0.1512***	-0.2228**	-0.0996**	-0.2196**	-0.1544***	0.0117
	(0.049)	(0.103)	(0.043)	(0.099)	(0.045)	(0.093)
Household type 5: three-generation household	-0.1093*	-0.1999**	-0.0878**	-0.1437	-0.1143***	0.0398
	(0.058)	(0.098)	(0.044)	(0.104)	(0.045)	(0.092)
Household type 6: other household structures	-0.1468***	-0.1612*	-0.046	-0.1905*	-0.0345	0.0861
	(0.052)	(0.096)	(0.045)	(0.104)	(0.047)	(0.094)
Age of household head	0.007	0.0013	0.0005	-0.0078	0.007*	0.0033
	(0.005)	(0.006)	(0.004)	(0.008)	(0.004)	(0.006)
Age of head squared (divided by 100)	-0.0068	-0.0009	-0.0017	0.0048	-0.0099**	-0.0043
	(0.004)	(0.007)	(0.003)	(0.007)	(0.004)	(0.006)
Household head is female	-0.005	-0.0782***	0.0281	0.0098	0.0132	-0.0833**
	(0.024)	(0.026)	(0.02)	(0.05)	(0.019)	(0.043)
Most educated member: primary education	-0.1265**	-0.1199*	-0.1805***	-0.1952***	0.1373***	0.1748***
	(0.058)	(0.068)	(0.04)	(0.029)	(0.028)	(0.037)
Most educated member: lower secondary	0.126***	0.1142**	0.0844***	0.1354***	0.2225***	0.2508***
	(0.023)	(0.048)	(0.017)	(0.029)	(0.028)	(0.04)
Most educated member: upper secondary	0.2725***	0.29***	0.2399***	0.3374***	0.3754***	0.4406***
	(0.027)	(0.048)	(0.022)	(0.053)	(0.031)	(0.049)
Most educated member: vocational/technical	0.3057***	0.3453***	0.3543***	0.3422***	0.5224***	0.6215***
	(0.032)	(0.07)	(0.023)	(0.055)	(0.031)	(0.053)
Most educated member: college/university	0.5696***	0.4527***	0.6234***	0.605***	0.7494***	0.6652***
	(0.038)	(0.148)	(0.032)	(0.105)	(0.037)	(0.1)
Irrigated annual crop land (1000 m^2)	0.0064***	0.0146***	0.0093***	0.0103***	0.0087***	0.0068*
	(0.002)	(0.004)	(0.001)	(0.003)	(0.001)	(0.004)
Non-irrigated annual crop land (1000 m^2)	0.0028	0.0047	0.0039***	0.0081***	0.0037	0.0065***
	(0.002)	(0.007)	(0.001)	(0.002)	(0.002)	(0.001)
Perennial land (1000 m^2)	0.0124***	0.0251***	0.0053	0.0093***	0.015***	0.0119***
	(0.001)	(0.006)	(0.003)	(0.002)	(0.002)	(0.003)
Forest plot (1000 m^2)	0.0076***	0.0044**	0.0011*	0.0002	0.0001	0.001***
	(0.003)	(0.002)	(0.001)	(0.001)	(0.001)	(0)
Water surface (1000 m^2)	0.000*	0.0101	0.011***	0.025*	0.0115***	0.0219***
	(0.00)	(0.030)	(0.002)	(0.015)	(0.002)	(0.005)
Other cultivated lands (1000 m^2)	0.0065***	0.0074	0.0231***	0.0078	0.0042	-0.0105*
	(0.002)	(0.005)	(0.004)	(0.006)	(0.011)	(0.006)
Geographical types: rural coastal	0.0021	-0.4104***	-0.0062	0.0011	0.0062	-0.1057
	(0.06)	(0.135)	(0.031)	(0.158)	(0.035)	(0.089)
Geographical types: rural midlands	-0.0407	-0.4875***	0.0175	0.0639	0.0058	0.0302
	(0.095)	(0.16)	(0.03)	(0.158)	(0.042)	(0.144)
Geographical types: rural low mountain	-0.1224**	-0.2617**	-0.0338	-0.1644**	-0.056	-0.2675***
	(0.05)	(0.121)	(0.021)	(0.06)	(0.039)	(0.085)
Geographical types: rural high mountain	0.0016	-0.2968***	0.0234	-0.2618***	-0.0191	-0.3347***
	(0.07)	(0.101)	(0.041)	(0.059)	(0.05)	(0.085)
Commune having access to road that car can travel	0.0355	0.0114	0.0032	0.0762	-0.047**	0.0112
	(0.051)	(0.072)	(0.043)	(0.091)	(0.023)	(0.038)
Commune having access to public transport	0.0538	-0.0466	0.0585***	0.0514	0.0474***	0.0763**
	(0.045)	(0.073)	(0.016)	(0.032)	(0.016)	(0.03)
Commune having access to post office	0.0563	0.1086	0.0456***	-0.0418	0.0003	-0.0338
	(0.045)	(0.094)	(0.018)	(0.035)	(0.019)	(0.035)
Commune having access to daily market	0.0849**	-0.0269	0.0988***	0.1572***	0.0742***	0.1026**
	(0.037)	(0.098)	(0.017)	(0.048)	(0.019)	(0.045)
Commune having access to electricity	0.0806	0.166*	0.0265	0.0584	0.5855**	0.2086***
	(0.079)	(0.099)	(0.044)	(0.047)	(0.272)	(0.078)
Commune having factories located within 10km	0.057	-0.0575	0.0676***	0.0921***	0.1114***	0.0601**
	(0.04)	(0.074)	(0.016)	(0.033)	(0.017)	(0.03)
Constant term	7.0435***	7.2948***	7.454***	7.5966***	7.007***	7.3286***
	(0.151)	(0.222)	(0.108)	(0.215)	(0.288)	(0.201)
R^2	0.3162	0.4726	0.3122	0.4468	0.3078	0.4574
Number of observations	3,590	680	5,531	1,181	5,559	1,269

Notes: ***, **, and * denotes statistically significant at 0.01, 0.05 and 0.1 levels respectively.

Sources: Own calculations based on VLSS and VHLSS

Appendix 7: Budgetary expenditures on the main ethnic minority policies and programs

Programme	Objective(s)	Target Group	Executive Agencies	Total Budget (VND billions)	Budget Period	VND billions per annum	Reference
Resettlement and Sedentarization Programme	Resettlement, poverty reduction and environment protection	Ethnic minority and mountainous areas, and afforestation areas	CEM/MOLISA/ MARD	735	2000-2004	147	Le et al (2006)
		Decision 33/2008	CEM	133	2008	133	Vi (2008)
Policy of Support for Extremely Difficult Ethnic Minority Households	Poverty reduction	Ethnic minorities whose population is below 10,000 persons, poor households	CEM	182	2001-2006	30.3	Phan (2006)
Programme 134	Production land, residential land, houses and water for ethnic minorities	Poor ethnic minority households and villages	CEM	4,482.6	2004-2008	896.5	NTP on HEPR (2009)
Programme 327	Regreening bare hills, protection forest	Afforestation areas	MARD	1082.4	1996-1998	360.8	MOLISA (1999)
Educational National Target Programme	Support for the education of ethnic minorities and disadvantaged regions	Ethnic minorities and disadvantaged groups	CEM, MOET	510	2007	510	MOET (2007)
Programme 139	Increase the access to health service	Poor households, poor households in P135, Decision 960, and 656 areas	MOH, Social Insurance	2304	2002-2006	460.8	NTP on HEPR (2005)
Price and transportation subsidies	Decrease the price difference due to remoteness	Poor households and region 3 communes	CEM, Ministry of Trade, MOF, MPI and Price Committee	512	2004-2005	256	Dinh (2006)
				600	2006-2007	300	Vi (2008)
				1,200	2007-2010	300	Vi (2008)
Communication and Information	Information and knowledge	Ethnic minority and remote areas				80	Vi (2008)

Programme	Objective(s)	Target Group	Executive Agencies	Total Budget (VND billions)	Budget Period	VND billions per annum	Reference
Programme 143	Poverty reduction and employment creation	Nationally targeted	MOLISA, MOH, MOET, MARD, SBV	8,387	2001-2005	1677.4	NTP on HEPR (2005)
Programme 135 – Phase I	Infrastructure improvement	Initially the 1,000 poorest communes, rising to 2,410 communes in 2005, and then scaled back to approximately 1,800 communes in 2006	CEM	6331.6	1999-2005	904.5	CEM (2006b)
	Infrastructure construction for communal centres			1671	1999-2005	238.7	
	Resettlement projects			73.6	1999-2005	10.5	
	Agricultural and forestry production and marketing			60	2002-2005	15	
	Training			284	2001-2005	56.8	
Programme 135 – Phase II	Project on production promotion and economic restructure	1,946 Region-3 communes and 3,149 Region-2 extremely difficult villages	CEM	846.4	2006-2008	282.1	NTP on HEPR (2009)
	Project on infrastructure improvement			4,215	2006-2008	1405	
	Project on capacity building and training			284.3	2006-2008	94.8	
	Policy on social service supports, civil welfare improvement, legal awareness improvement			1,259.8	2006-2008	419.9	
	Phase 2 as total			16,039	2006-2010	3,208	

Source: Updated from 'A Review of Ethnic Minority Policies and Programmes in Vietnam' (Nguyen, P.T.T. and Baulch, B., 2007)

**Appendix 8: Relevant decisions, decrees and resolutions**

HEPR AND EMPLOYMENT CREATION PROGRAMME	
Resolution 120/HDBT by the Council of Ministers in 1992	Decisions on National Programmes on Employment Creation, and National Fund for Employment Creation
Programme 133 (Decision 133/1998/QD-TTg)	Decision on National Programme on Hunger Eradication and Poverty Reduction (HEPR) in the period of 1998- 2000. The objective is to eliminate chronic hunger and reduce the percentage of poor households in the whole country to 10% by 2000.
Programme 143 (Decision No 143/2001/QD-TTg)	Decision on National Programme on HEPR and Employment Creation in the period of 2001-2005. This Programme resulted from the merge of Programme 133 and Programme 120.
Decree No. 78/2002/NĐ-CP	Decree on credit for the poor and policy-targeted groups, including ethnic minorities.

INFRASTRUCTURE AND OTHER COMPONENTS – PROGRAMME 135	
Decision 35/1997/QD-TTg	Programme on communal centres in the mountainous and upland areas.
Programme 135 (Decision 135/1998/QD-TTg)	Supports for the socio-economic development of extremely difficult communes in the ethnic, mountainous, boundary and remote areas. Pay attention to infrastructure improvement to the level of communes.
Decision 237/1998/QD-TTg	National Target Programme on Clean Water and Sanitation, Environment in rural areas.
Decision 140/1999/QD-BNNPTNT (based on Decision 72/HDBT in 1990)	Design the resettlement and sedentarization component under Programme 327. Set up guidelines for resident planning, infrastructure development, and production supports which focused solely on ethnic minorities that practiced shifting cultivation, have a little or no stable cultivation land. Their livelihoods depend mainly on income earned from deforestation for shifting cultivation (50% of income and up). Their residences are not stable and change with the shifting of agricultural fields.
Decision 22/QD-TTg in 1999	National Programme on Electricity Network Development in Rural Areas.
Decision 138/2000/QD-TTg	Integrate the earlier National Targeted Programme on HEPR components on sedentarization, supports for especially disadvantaged minorities, and communal centre development in mountainous communes into Programme 135.
Decision 07/2006/QD-TTg	Åppove the Programme 135 in the period 2006-2010 (Phase II)
Decision 164/2006/QD-TTg	Approve 1,644 communes in the ethnic minority and mountainous areas, bounder, and historical resistance sites in the second phase of Programme 135.
Decision 113/2007/QD-TTg	Approve additional 155 communes in the ethnic minority and mountainous areas, bounder, and historical resistance sites in the second phase of Programme 135. Approve 301 difficult communes in the coastal line and islands to receive supports for infrastructure since 2008.

RESETTLEMENT AND SEDENTARIZATION

Instruction 393/1996/CT-TTg	Residential planning for economic development in the ethnic mountainous area.
Decision 140/1999/QD-BNN	Criteria and plans of resettlement and sedentarization.
Decision 190/2003/QD-TTg and Circular 09/2004/TTLT-BNN-BTC	Guidelines for Residential planning in the period of 2003-2020.
Decision 193/2006/QD-TTg	Residential planning for 75,000 households in the special-used forests up to 2010.
Decision 33/2007/QD-TTg	Support for migration Programmes for resettlement and sedentarization for the ethnic minorities in period of 2007-2010. One-off grant up to VND 15 mil/household. Support for villages on infrastructure, cadres training, and local budget. Applied for non-P134-P190-P120-P193 cases.

POLICY OF SUPPORT FOR EXTREMELY DIFFICULT ETHNIC MINORITY HOUSEHOLDS

Decision 826/1995/QD-TTg	Policy of Support for Extremely Difficult Ethnic Minority Households.
Decision 30/2007/QD-TTg	Define the ethnic minority extremely difficult areas.
Decision 32/2007/QD-TTg	Free-interest loans to ethnic minorities in extremely difficult areas up to VND 5 mil.

DEMOCRACY

Decree 79/2003/ND-TTg	Grass-root democracy at the commune level, which has created a strong basis for the decentralization of Programme 135 and others to the commune level. Local people have the right to participate, supervise, and assess any projects in the local area which directly impact their local production, security, society and livings.

PROGRAMME 134

Decision 132/2002/QD-TTg	Supports for residential and production land for ethnic minorities in Central Highlands (support of VND 4 mil per ha of reclaimed land).
Decision 105/2002/QD-TTg	Supports for loans for houses by instalments in the flooding in Mekong river delta.
Decision 154/2002/QD-TTg	Supports for loans for houses by instalments in the flooding in Central Highlands.
Decision 134/2004/QD-TTg	Supports for production land, resident land (houses) and water for difficult ethnic minority households. P134 Budget will be repaid for their previous loans under these 2 Decisions of 105 and 154.
Joint Circular 819/2004/TTLT-UBDT-KHDT-XD-NNPTNT	Guidelines for P134: supports of VND 5 mil per ha/house is the minimum; local budget contribution is required as at least 20% of the national budget.
Decision 03/2005/QD-BNN	P134 households can exploit timber wood to built houses in extremely poor and difficult situation.
Decision 1143/2006/QD-TTg	Approved advances of VND 105 bil for participatory irrigation projects at the medium and small size which are really needed for ethnic minorities in the remote Central Highlands.

FOREST LAND ALLOCATION	
Decision 327/CT in 1992	National Programme on Reforestation to re-green of barren hills. It provided direct payment to households in exchange for forest protection and for State Forest Enterprises to establish forest plantations.
Land Law 1993	Agricultural and forest land can be allocated to households. The state officially recognized the land use rights of farm households, including the right to sell, transfer, and assign land.
Decree 02/CP in 1994	Long-term forest land allocation to organizations, households, and individuals for the forestry objective in the ethnic policy for the first time.
Decree 01/CP in 1995	Long-term forest land contracts to organizations, households and individuals.
Decision 661/1998/QD-TTg	5-million ha afforestation to rehabilitate degraded forest lands in the period of 1998-2005. Households commonly received some credit or other help to get trees replanted and were often promised a piece-rate payment per ha for protection of the land and growing tree seedlings (around 30-50,000VND per year per ha).
Decree 163/1999/ND-CP	Production forest allocation to households and individuals. Land allocation and lease, forest protection and management. Households were granted "Red Books", and household enjoyed more land-use rights than what the "Green Books" allowed.
Decision 3011/2000/UB	Son La provincial decision to implement the Programme of Forestry Land and Forest Allocation to households, individuals, organizations and communities in 2000-2003 in Son La province.
Decision 178/2001/QD-TTg	Benefits from forest land allocation to households and individuals.
Decree 197/2004/ND-CP	Compensation and resettlement applied in forest reallocation: land is compensated from the national budget at VND 5 mil per ha. Local budget contribution was required as at least 20% of the national budget.
Decision 04/2004/QD-BNN	Procedures to exploit timber wood and other forest products.
Decision 146/2005/QD-TTg	Reallocate production lands from forest state enterprises to poor ethnic minority households.
Decision 304/2005/QD-TTg	Pilot forest allocation to households and communities (priorities to P132 and P134 cases in Central Highlands) with the annual support of VND 50,000/ha (which was increased to VND 100,000 per ha later).
Law on Forest Protection and Development in 2004 and Decree 23/2006/ND-CP	Forest allocation to households, organizations and village communities for forest protection and development. Normally, each household can have less than 30ha in less than 50 years.
Decision 147/2007/QD-TTg	Policies on Production Forest in 2007-2015: Individuals, households, communities under Decision 164 (extremely difficult communes) receive supports to re-green in barren hills VND 3 mil/ha for big timber (generate income after above 10 years) or VND 2 mil/ha for small timber (less than 10 years) Additional VND 1mil/ha if in the boundary Additional VND 1mil/ha if in the resettlement area of hydro electric power project Ethnic minority households, individuals and communities not under the Decision 164 receive supports to re-green in barren hills of VND 2 mil/ha Other cases receive supports of VND 1.5 mil per ha or per 1,500 trees

STATE FOREST ENTERPRISE REFORM

Law on State-Owned Enterprise 1995	State-Owned Enterprise Reform.
Decree 50/1998/ND-CP	State Forest Enterprise Reform initiated.
Decision 187/1999/QD-TTg	Reform of State Forest Enterprise to independent business enterprise in order to separate the public services and business activities, and to achieve a sustainable and efficient forest management. One of expectation is to release a large forest land to households.
Joint Circular 199/1999/TTLT/BNN-BTC	Implementation guidelines for the Decision 187 from the MARD and MOF.
Decree 10/2002/ND-CP	Protection Forest Management Board will operate under the provincial People Committee.
Decree 170/2004/ND-CP	Reform of state farm.
Decree 200/2004/ND-CP	Decree on the Arrangement, Reform and Development of State Forest Enterprises.
	A further State Forest Enterprise Reform on the restructuring of State Forest Enterprises, their transformation into either commercially viable wood businesses or effective public service entities, in particular, for forest protection.
	Create the legal basis for State Forest Enterprise Equitization. SFEs for public services are reformed to Protection Forest Management Board. National budget is only for Special – Used and Protection Forest. Production Forest will be allocated to business SFEs (one-member limited liability companies), households, and individuals.
Decision 231/2005/QD-TTg	Supports for state-owned forest enterprises to employ ethnic minority residents in 5 provinces in Central Highlands.
Circular 10/2005/BNNPTNT	Implementation guidelines for the Decree 200 from the MARD.
Decree 23/2006/ND-CP	Regulation on the implementation of Forest protection and development law.

EDUCATION

Decision 66 in 1985 by MOET and Circular 23 in 1985 by MOET	Regulations on organization and operation of boarding schools for ethnic minority children.
Decision 55/BGD in 1990	MOET has encouraged all 5 to 6 year pre-school children to attend one-year of (typically half-time) kindergarten, or at least, the 36-day summer-school Programme.
Law on the Universalisation of Primary-education in 1991	It encouraged schools to use the ethnic minority languages along with Vietnamese in primary school classes in ethnic minority areas.
Joint Circular 17 in 1995/ by MOLISA, MOF, MOET	Financial supports for teachers delivering extra classes and combined classes.
Decision 2590/1997/QD-BGD and Circular 16/1997/TT-BGD	Prepare ethnic minority students for university and vocational training and to develop cadres of ethnic minority teachers. Include the revision on organization and operation of boarding schools for ethnic minority children.
Decision 973/1997/QD-TTg	The five-level allowance system gives priority to mountainous regions and islands to attract more cadres and teachers.
Circular 01/1997/TT-BGD	Guidelines on teaching the oral and written languages of ethnic minority.
Joint Circular 54/1998/TTLT-BTC-BGD	Guidelines on school fees in the public educational system
Joint Circular 126/1998/TTLT-BTC-BGD	Financial supports for students in the ethnic boarding schools and pre-universities: exemption from school fee and examination fee; annual award if fairly-good qualification; personal staff: blanket, net, coat, mat, rain coat, trousers, shirt (uniform); two-way travelling

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	cost once a year to visit his family; stationary (note, bag, pen, pencil, a set of colour pencils, eraser, compasses, ruler, knife or scissors, glue, colour papers); and borrow textbook.
Decision 159/2002/QD-TTg	Programme on school and class infrastructure improvement; Erase the temporary classrooms and 3-shift classes.
Decision 1214/2001/BTC	Free 48-page notebook (15 books/1-2nd–grade pupil; 22 books/3-5th-grade pupil) to pupils from mountainous and extremely difficult area.
Circular 04/2001/TTLT-BGD-BTCCBCP-UBDT	The nomination policy (*Cu tuyen*): Pupils from local ethnic minority households (above 5 years of permanent residence) in the extremely difficult, and border areas, completed the upper-secondary education in the previous 3 years, will be selected to be under the nomination policy. They have to attend the 1-year pre-university, and then, be sent to the university/college/professional secondary schools without entrance exam. If their pre-university study result is better than Fairly Good, they will study with other normal students. If not, they will have a separated class. After graduated, they have to come back to work for their hometown in a given period at least double of their studying period.
Decision 194/2002/QD-TTg and Joint circular 13/2002/TTLT-BGD-BTC	Adjustment in scholarship and social supports for ethnic minority students in public schools.
Instruction 38/2004/CT-TTg	Classes on ethnic minority languages for cadres working in the ethnic mountainous areas.
Decision 267/2005/QD-TTg	Policy on priorities in vocational training for ethnic minority students in boarding schools.
Decision 164/2005/QD-TTg	Programme of "Develop distance education in the period of 2005-2010".
Decree 134/2006/ND-CP	The revised nomination policy (*Cu tuyen*): No entrance exam. After graduated, they have to come back to work for their hometown at least 5 years (university/college) or 3 years (professional school). Students can join the formal education without pre-university attendance (if he is qualified) and then join the same class with other normal students. The nomination policy allows up to 15% at most of students nominated to be Kinh.
Decision 82/2006/QD-TTg and Joint Circular 43/2007/TTLT/BTC-BGDĐT	Adjustment in scholarship and social supports for ethnic minority students in public schools. Scholarship is increased to VND 360,000 per head per month. Scholarship will be automatically adjusted at 80% of the official minimum average wage.

HEALTH	
Decision 270 in 1993 by PM	Strategy for Population and Family Planning until 2000.
Decree 95/CP in 1994	People from mountainous area as decided by CEM are exempted from health expenses.
Decision 576/1995/QD-TTG	National Plan for Nutrition 1995–2000.
Resolution 37/1996/NQ-CP	Strategy for Health Care for the Periods 1996–2000.
Decision 237/1998/QD-TTg	National Target Programme on Clean Water and Sanitation, Environment in rural areas.
Decision 139/2002/QD-TTg	Programme 139 - National Free Health Care Fund for the poor. People having Poor Household Certificate, living in the P135 communes, areas under Decision 186 (6 provinces in the Northern mountainous) and under Decision 168 (Central Highlands), will be provided the health insurance cards. Each province will have a Health Care Fund for the Poor of which at least 75% is from the National budget. The total budget of Fund is VND 70,000/per head/year at least. The Fund will pay VND 50,000/per head/year for the health insurance cards or directly pay for actual health expenses upon receipts.

PRICE AND TRANSPORTATION COST SUBSIDY

Decree 20/1998/ND-TTg, the amended Decree 02/2002/ND-CP, and Joint Circular 07/2002/TTLT/BTM-UBDT-BTC-BKHDT	The objective is to make the sales price of some social-policy items such as salt, petroleum, books, seedlings, fertilizers, and the purchase prices of agricultural/aquacultural/forest crops are the same for farmers living in remote communes as in the provincial town.
Joint Circular 11/2005/TTLT-BNV-BLDXH-BTC-UBDT	Guidelines for the implementation of subsidy system in different regions.

COMMUNICATION

Decision 975/2006/QD-TTg preceded by Decision 1637/QD-TTg in 2001	Programme 975 provides 14 different newspapers and journals free to schools, libraries, commune PCs, district PCs, provincial PCs, provincial departments of ethnic minorities, border points, and villages in the ethnic minority, mountainous and extremely difficult areas.

REGIONAL PROGRAMME

Instruction 393/TTg in 1996	Instruction on population planning and upgrading infrastructure, production arrangement in ethnic and mountainous areas.
Decision 656/1996/QD-TTg	Decision on socio- economic development in the Central Highlands for the period of 1996-2000.
Decision 960/1996/QD-TTg	Decision on orientation of socio- economic development in the North Mountainous region in the long term.
Instruction 515/TTg in 1997	Instruction on stimulating implementation of the Programme on Exploitation and Socio-Economic Development in Dong Thap Muoi.
Programme 186 (Decision 186/2001/QD-TTg	Supports for the Northern Mountainous Socio-Economic Development.
Programme 173 (Decision 173/2001/QD-TTg)	Supports for the Mekong River Delta Socio-Economic Development.
Programme 168 (Decision 168/2001/QD-TTg)	Supports for the Central Highlands Socio-Economic Development.
Decision 120/2003/QD-TTg	Supports for the socio-economic development of provinces along the Vietnam-China boundary.
Decision 174/2004/QD-TTg	Supports for the socio-economic development of 19 provinces and 64 mountainous districts bordering the Central Highlands, the west of old Region 4, and the Northern Mountainous area based on the Programme 186 and 168.
Decision 113/2005/QD-TTg	Action Plan of the Government on the framework for the socioeconomic development and security of the Northern Central Coast and Southern Central Coast to 2010.

Source: Updated from 'A Review of Ethnic Minority Policies and Programmes in Vietna' (Nguyen, P.T.T. and Baulch, B., 2007).