



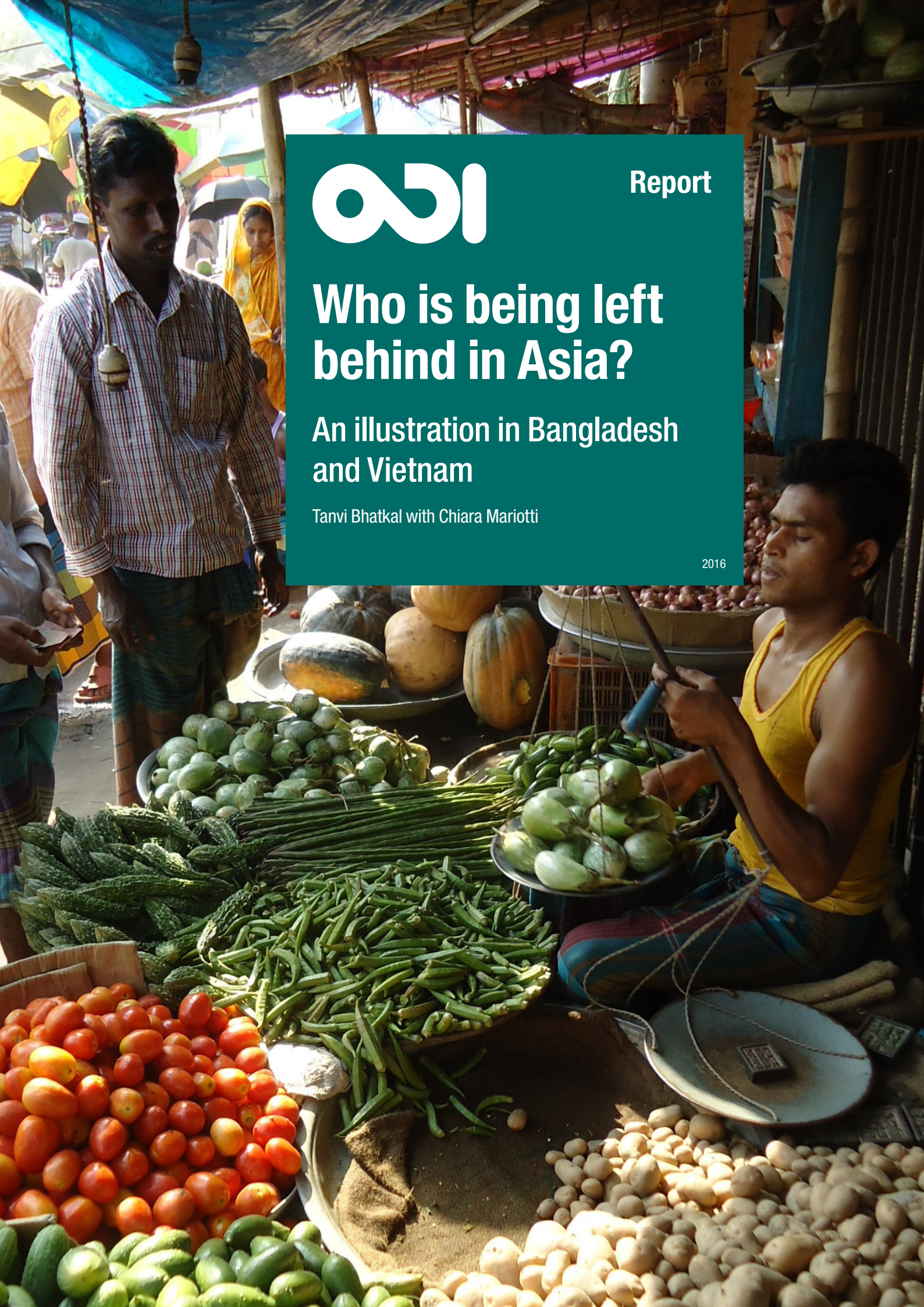
Report

# Who is being left behind in Asia?

An illustration in Bangladesh and Vietnam

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## Key messages

- The Sustainable Development Goals (SDGs) state that progress must leave no one behind. This paper is one of a series of papers setting out the first step along the road in implementing this agenda – that of identifying marginalised communities.
- Using household survey data for Bangladesh and Vietnam, this paper identifies the gaps for some marginalised groups in achieving a number of outcomes related to key SDG targets.
- In Bangladesh, households headed by women that are widowed, separated or never married fared worse on a range of outcomes compared with their counterparts headed by men or married women; however, there were sizeable improvements over time. While the probability of being poor for *de jure* female-headed households was 1.9 times that of *de facto* female-headed households in 2005, this had declined to 1.5 times in 2010.
- Households headed by older people also have lower levels of access to infrastructure and social services in some instances, particularly those headed by older women that are widowed, separated or never married. Progress on reducing the gaps for these households was more mixed. Based on data for 2010, households with disabled members also fare worse on a range of outcomes. This group deserves attention when implementing policies to ‘leave no one behind’.
- Ethnicity and region are key markers of social exclusion in Vietnam. Ethnic minorities continue to underperform compared with the ethnic majority. In 2006, the probability of being in the bottom wealth quintile for households headed by an ethnic minority was 3.2 times that of the majority group counterpart, which increased to 3.5 by 2011.

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# Acronyms

<b>ADB</b>	Asian Development Bank	<b>PPP</b>	Purchasing Power Parity
<b>CDC</b>	Center for Disease Control	<b>RMG</b>	Ready-Made Garments
<b>CPAN</b>	Chronic Poverty Advisory Network	<b>SDG</b>	Sustainable Development Goal
<b>CDPO</b>	Cambodian Disabled People's Organisation	<b>UN</b>	United Nations
<b>ESCAP</b>	UN Economic Commission for Asia and the Pacific	<b>UNDP</b>	UN Development Programme
<b>HIES</b>	Household Income and Expenditure Survey	<b>UNICEF</b>	UN Children's Fund
<b>LNOB</b>	Leave No One Behind	<b>VASS</b>	Vietnam Academy of Social Sciences
<b>MDG</b>	Millennium Development Goals	<b>WDI</b>	World Development Indicators
<b>MICS</b>	Multiple Indicator Cluster Survey	<b>WHO</b>	World Health Organization

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# Introduction

Over the past 15 years, countries in Asia and the Pacific<sup>1</sup> have made significant progress towards meeting the Millennium Development Goals (MDGs). The proportion of people living in extreme poverty – defined as those living on \$1.25 a day or less – fell from 53% in 1990 to 14% in 2012, and is projected to reach 12% in 2015 (ESCAP et al., 2015). In addition, the proportion of people without access to safe drinking water has fallen by three quarters, from 28% to 7%. The region has also made remarkable advances in education, with nearly all primary-aged children now completing school and gender parity at all educational levels (ibid.).

South-East Asia has been the most successful sub-region, notably achieving three targets missed by the region overall: child nutrition, sanitation and antenatal care (ESCAP et al., 2015). South Asia has also made considerable progress, meeting the MDG targets of halving extreme poverty, ensuring universal enrolment in primary school and its completion, and halving the share of people without access to safe drinking water.

However, such averages conceal differences within and across countries, which are often quite significant and indicate an extensive unfinished agenda. Inequality is a growing concern. Although the region has experienced rapid economic growth over the past 15 years, its benefits have been distributed unequally. The Gini coefficient<sup>2</sup> for Asia as a whole increased from 33.5 in the 1990s to 37.5 (ESCAP, 2013) – although it remains more equal than Africa or Latin America.

Within countries, considerable disparities persist between urban and rural areas, men and women and ethnic, language and caste groups (ESCAP et al., 2013). Group-based inequalities emerge not only in income terms but also in various aspects of development, such as education, housing and access to services. These inequalities play out through the systematic exclusion of some groups and as multiple forms of deprivation overlap and reinforce one another. The MDG experience demonstrates it is inadequate merely to state that the target must be met by all while focusing on aggregates (Kabeer, 2011; Melamed, 2012; UN System Task Team, 2011): going forward, countries need to focus on improving the lives of those most in need.

Recognising that not all groups have benefited from progress, the commitment to ‘leave no one behind’ (LNOB) has been a key feature of the discussions around the Sustainable Development Goals (SDGs). The final SDG outcome document makes numerous references to the concept, and also states that ‘we emphasize the responsibilities of all States... to respect, protect and promote human rights and fundamental freedoms for all, without distinction of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, disability or other status’ (UN, 2015). Goal 10 of the SDGs is to ‘reduce inequality within and among countries’ with a target to the effect that, by 2030, all countries should ‘empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status’.

Yet, what the LNOB principle means in practice remains unclear (Save the Children, 2015). And there is a more fundamental problem still: governments do not always know who the most marginalised are, where they live and therefore what they need, because of data gaps (Stuart et al., 2015). Melamed (2015) has proposed that, as the first step in implementing this agenda, countries commit to identify the groups being left furthest behind by progress on different goals in their countries within the first three years of a new agreement. Government could thereafter share experiences and make commitments to implement policies to address the vulnerabilities marginalised people face at a global LNOB summit.

This paper is one in a series of three regional briefings that aims to carry out this exercise of identifying marginalised groups. In it, we examine inequalities through a group lens to aid in identifying who is being left behind, an important first step in addressing impediments to their progress. Using household survey data for two lower middle-income countries from different sub-regions in Asia (Bangladesh and Vietnam), we identify some of the groups being left behind and by how much their performance is lagging, across some key development areas. We also examine and reveal trends in group-based inequality over time.

This briefing is, of course, intended to be illustrative rather than exhaustive. While the household surveys used

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1 As per the UN definition, Asia Pacific includes East and North-East Asia, South-East Asia, South Asia, North and Central Asia and the Pacific.

2 The Gini index measures the extent to which the distribution of income (or consumption expenditure) within an economy deviates from a perfectly equal distribution, with a value of 0 representing perfect equality and 100 implying perfect inequality.

contain a wealth of information, they also have certain limitations in identifying which groups have been left furthest behind (Box 1).

We focus on inequalities associated with gender, disability status and age in Bangladesh, and on ethnic and regional disparities in Vietnam. The groups we look at

are those identified in the literature on levers of inequality in these countries and are identified within the SDGs as being often left behind. We identify the extent of these group-based inequalities, as well as how these inequalities intersect with each other.

### **Box 1: A note on data and methodology**

The analysis presented here is based on the analysis of the Bangladesh Household Income and Expenditure Survey (HIES) for 2005 and 2010 conducted by the Bangladesh Bureau of Statistics, and the Vietnam Multiple Indicator Cluster Survey (MICS) for 2006 and 2011 conducted by the UN Children's Fund (UNICEF) and the Vietnam National Statistics Office. In Bangladesh, the focus is on inequalities based on gender, age and disability status. In Vietnam it is on ethnic and regional disparities.

The surveys contain a wealth of valuable information but also suffer some limitations of identifying the most marginalised and the dimensions in which they experience deprivation. Some of these apply to household surveys more generally. For example, it is estimated that household surveys may exclude as many as 350 million people: by design, sampling frames tend to exclude the homeless, people in institutions and mobile, nomadic or pastoralist populations; in practice, they also tend to underrepresent people living in urban slums, dangerous places and fragile or transient households (Carr-Hill, 2013). Household surveys also typically do not capture the intra-household distribution of resources.

In Bangladesh, the 2010 HIES included the core questionnaire from the Washington Group on Disability Statistics (Center for Disease Control, 2006). One strength is its identification of persons with disabilities by type, although this is available only for 2010. However, as its focus is on income and expenditure, the survey includes only limited information on key social development outcomes such as health and nutrition.

The Vietnam MICS sample includes data on some of the major ethnic groups but does not allow for identifying differences between more than 35 indigenous groups in the country as these groups are relatively small in size. In addition, for those ethnic groups that are uniquely identified, the sample sizes of these populations are very limited and so these have been aggregated in the data analysis.

With these limitations in mind, the analysis in this paper aims to identify the extent of group-based inequalities in Bangladesh and Vietnam. Indicators were selected from across a range of outcomes that can be illustrative of key SDG areas (see Appendix 2 for a complete list of the indicators used in each country and their measurement). Although the SDGs also cover issues beyond these, data in the surveys were insufficient to look comprehensively at all the indicators featured in the SDGs.

We provide descriptive statistics on the extent and trends in disparities. We then estimate the difference group characteristics make – alone and in conjunction – to the probability of experiencing a certain outcome conditional on the characteristics of a person or household. This is done through a regression model for a binary (yes/no) dependent variable (details of methodology used in Appendix 1). The results are reported in terms of the predicted probability – the probability of having a certain outcome for households or people belonging to certain groups or at the intersection of two groups – after holding a range of other factors constant. The advantage of this approach, compared with a more simple description of average outcomes for different groups, is it allows for isolating the effect of factors from that of the other characteristics that may influence outcomes. For instance, to estimate the difference being male or female makes to being literate, the likelihood of the outcome is first calculated for all individuals as if they were female and then repeated but this time as if all individuals were male. The difference between a base category (female) and males, in this case, can then be calculated.

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# Diversity and marginalisation in Bangladesh

Bangladesh is the world's eighth most populous country. With a population of nearly 160 million people spread over a landmass of 130,000 km<sup>2</sup>, it is one of the most densely populated countries (World Bank, World Development Indicators (WDI)).

After separating from Pakistan in 1971, Bangladesh experienced famine, recurrent disasters and a protracted period of authoritarian rule. However, it has made remarkable progress on a wide range of outcomes over the past two decades. With steady economic growth, Bangladesh recently graduated from being a low- to a lower-middle income country (World Bank, 2015). The share of the population living on less than \$1.25 a day remains high, but it has declined significantly from 70% in 1991 to 59% in 2000 and to 43% in 2010 (WDI). In addition, human development outcomes have progressed markedly – including child mortality and under-nutrition, maternal mortality, and gender parity in primary and secondary education (Bangladesh Planning Commission, 2013; CPAN, 2014).

Notwithstanding this progress, it is important to examine the remaining gaps. This section illustrates<sup>3</sup> levels and trends of group-based inequalities in a country context of significant progress but continuing poverty. We look specifically at inequalities related to gender, age and disability status,<sup>4</sup> and how these inequalities overlap. In addition, we examine gaps based on location and religion. Given the large number of combinations involved in examining inequalities based on the different groups and their intersections, we discuss selected group-based inequalities and their intersections in this section.

Table 1 shows the composition of the population in 2005 and 2010 as reported in the Bangladesh HIES. The share of people living in urban areas increased

slightly between 2005 and 2010. The regions of Dhaka and Chittagong – which contain the two biggest cities – contained about half the national population.

While demographic characteristics remained fairly constant between 2005 and 2010, an exception was the share of female-headed households, which increased over the period. We distinguish between two types of female-headed households: those headed by widows, women separated from partners, or those never married – likely to be *de jure* (legal and customary) heads of their households – which accounted for 6.7% of households in 2005 and 8.1% of households in 2010. The second, headed by married women whose husbands live away, for instance having migrated for work, are generally *de facto* heads (husbands may contribute to income and decision-making). The share of these households nearly doubled over five years to 5.8% in 2010. For convenience, we refer to these two types as *de jure* and *de facto* female-headed households, respectively. The wide differences between the two groups suggest it is not enough to know the gender of the household head, as the differences in the lived experience of these women makes a difference and illustrates the importance of surveys asking more granular questions.

The majority of households – over 80% in both years – had heads who were under 60 years of age. However, the share of households with older heads increased between 2005 and 2010, for both household heads between 60 and 79 years and those over 80 years.

In 2010, about 9% of people in Bangladesh reported a disability. Of those with disabilities, the vast majority – over four in five – had a moderate, as opposed to severe, disability. Incidence of disability was higher among older people (Table 2): compared with the population average of 9% of people having a disability, this share was about a third

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3 All tables and figures are based on the author's calculations based on HIES 2005 and 2010 unless otherwise stated.

4 The Bangladesh HIES includes the core module endorsed by the Washington Group on Disability Statistics. This includes questions relating to vision, hearing, walking or climbing, remembering or concentrating, self-care and speaking or communicating, and distinguishes their severity. While these questions still miss certain subpopulations, such as those with mental health conditions, they generate a recognisable group that encompasses a majority of people with disabilities. Additionally, questions identify people with conditions serious enough to limit the ability to care for themselves, and challenges remembering, concentrating and communicating help identify people with psychological and mental disabilities.

among people between 60 and 69 years – and progressively increased to about two-thirds among people over 90 years.

Overall, while many of the inequalities this section explores are likely to occur independently (e.g. there is no strong relationship between being in a female-headed household and being disabled), in some instances group-based characteristics may be related, as in the case of age and disability.

It is also worth mentioning endogeneity considerations. For instance, while location affects poverty status or access to services, equally the latter affects place of residence through migration over time. Similarly, disability may be both a cause and a consequence of poverty. On the other hand, gender and religion are more exogenous. While important to keep in mind, this discussion is beyond the scope and intent of this paper, which will focus on associations rather than causation.

## Monetary poverty

### Key message

- The probability of being poor was the highest for de jure female-headed households. By 2010, they recorded considerable improvements. While the probability of being poor for members of de jure female-headed households was 1.9 times that of de facto female-headed households in 2005, this declined to 1.5 times in 2010.

In Bangladesh, average income has been rising and poverty has fallen. The Gini coefficient fell from 0.39 in 2005 to 0.35 in 2010. This improvement resulted from rising consumption among all four lower quintiles coupled with a fall in the share of the top quintile. While the bottom quintile accounted for 7% of total consumption in 2005, this increased to 8% in 2010 (Table 3). The share of the

**Table 1: Population by groups (%)**

Category	Group	2005	2010
Place of residence	Rural	75.3	73.7
	Urban	24.7	26.3
Region	Barisal	6.4	6.3
	Chittagong	19.3	19.0
	Dhaka	32.2	32.8
	Khulna	11.7	11.9
	Rajshahi**	24.0	23.8
	Sylhet	6.3	6.2
Household head (% of households)	Male headed households	89.8	86.1
	De jure female headed households	6.7	8.1
	De facto female headed households (married women)	3.5	5.8
	Household head under 60 years	81.2	82.1
	Household head 60-79 years	15.5	16.2
	Household head 80 years and above	1.3	1.7
Disability*	No disability		91
	Moderate disability		7.5
	Severe disability		1.5
Total sample size	Individuals	48,977	55,559
	Households	10,080	12,240

Notes: \* The analysis includes three categories for the 'disability' variables: (i) no disability; (ii) moderate disability; and (iii) severe disability. The disabilities included are challenges in vision, hearing and walking or climbing; remembering or concentrating and speaking or communicating; and self-care (e.g. bathing). \*\* This analysis combines the region of Rangpur, which was formed out of Rajshahi in 2010 and was therefore counted as Rajshahi in 2005, to maintain consistency.

5 Bangladesh has two poverty lines – a lower (extreme poor) and upper (poor) poverty line – each of which is differentiated by region and separately for urban and rural areas. See Appendix 3 for elaboration on poverty lines used. The share of poor based on \$1.25 was 43.3% in 2010 (World Development Indicators) compared with 31.6% at the upper poverty line.

**Table 2: Distribution of disability by age group, 2010 (%)**

Disability status	Age								
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
No disability	97	97	92	85	76	66	50	35	33
Moderate disability	2	3	7	14	21	29	39	44	42
Severe disability	1	1	1	1	3	6	11	21	25

**Table 3: Share of household consumption expenditure by quintile, 2005 and 2010 (%)**

Income quintile (20%)	Share of households	2005		2010		Difference (percentage points)
		Expenditure share	Cumulative share	Expenditure share	Cumulative share	
1	20	6.9	6.9	8.1	8.1	1.2
2	20	10.8	17.7	12.5	20.6	1.7
3	20	14.8	32.5	16.6	37.2	1.8
4	20	21.0	53.6	23.3	60.5	2.2
5	20	46.4	100.0	39.5	100.0	-6.9

**Table 4: Poverty rate by place of residence, 2005 and 2010 (%)**

Year	Rural			Urban			Total		
	Share	95% Confidence interval		Share	95% Confidence interval		Share	95% Confidence interval	
2005	45.9	LB 45.4	UB 46.5	20.5	LB 19.9	UB 21.0	39.7	LB 39.3	UB 40.1
2010	35.1	LB 33.0	UB 37.2	21.7	LB 19.2	UB 24.5	31.6	LB 29.9	UB 33.3
Change	-10.8			1.2			-8.1		

Note: LB=lower bound, and UB=upper bound of the estimate

top quintile fell by about 7 percentage points, from nearly 46% to less than 40% over this period.

In turn, poverty has fallen dramatically. Between 2005 and 2010 alone, the poverty rate at the national 'upper' poverty line<sup>5</sup> (using per capita household consumption) declined from 40% to 32%.

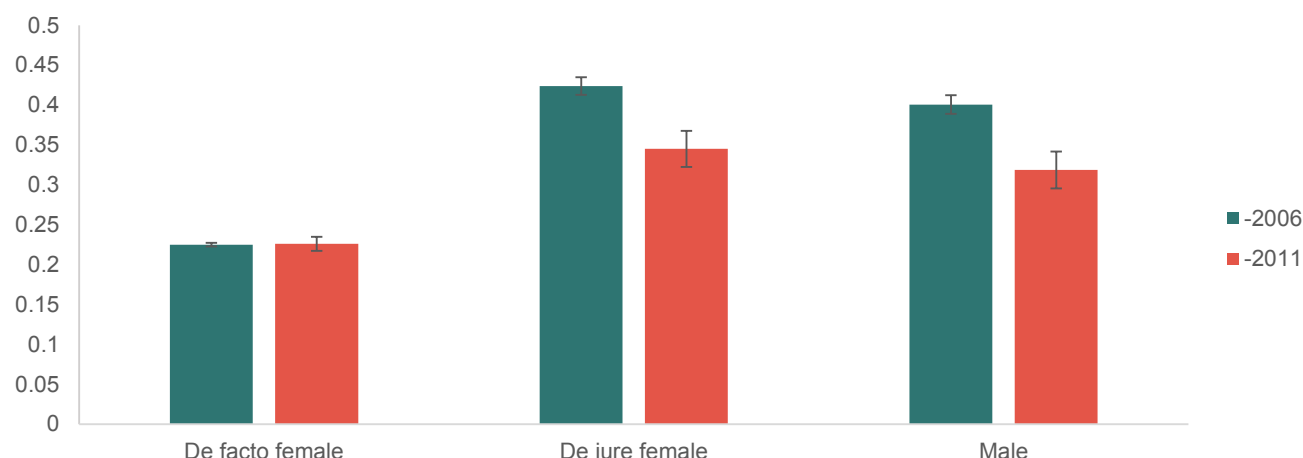
Poverty rates differ by location: about 46% of people in rural areas were poor compared with 21% in urban areas in 2005. The reduction in poverty over the next five years was driven by changes in rural areas (Table 4) – the poverty headcount ratio fell over 10 percentage points in rural areas whereas the urban poverty rate stayed roughly constant. Household composition was also associated with poverty. Our dataset does not provide information on the distribution of resources within households, so we examine differences in poverty based on characteristics of household members and the head of the household.

In both 2005 and 2010, incidence of poverty was lower among people belonging to female-headed households than

in male-headed households on average. However, *de jure* and *de facto* female-headed households differ significantly (Table 5). The poverty rate was roughly the same for people in male-headed households and *de jure* female-headed households and in line with the overall poverty rate in both years. In contrast, only about 20% of people belonging to *de facto* female-headed households were poor in both years. These include households where an adult man has migrated and may be remitting money to the family, which could contribute to lower incidence of poverty.

However, there were differences between urban and rural areas. In rural areas, the difference in incidence of poverty between male-headed and *de jure* female-headed households was not statistically significant in both years. In contrast, in 2005, incidence of poverty was higher among *de jure* female-headed households, 26% compared with 20% among male-headed households. However, by 2010 *de jure* female-headed households had caught up.

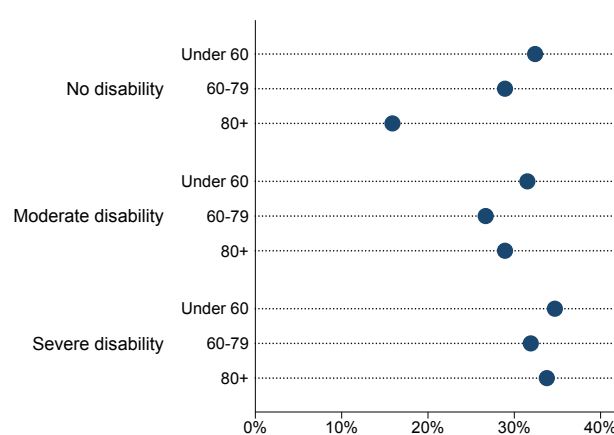
**Figure 1: Likelihood of being poor by household head's gender, 2005 and 2010 (%)**



It is useful to look at the likelihood of being poor holding other characteristics constant in order to isolate the effect of specific characteristics. Following the methodology in Box 1, the probability of being poor was the highest for *de jure* female-headed households in 2005 and lowest for *de facto* female-headed households in both 2005 and 2010 (Figure 1). However, over the five years, *de jure* female-headed households (and male-headed households) recorded considerable improvements. As a result, the gap in the probability of being poor between people in *de jure* and *de facto* female-headed households reduced by 8 percentage points. While the probability of being poor for members of *de jure* female-headed households was 1.9 times that of *de facto* female-headed households in 2005, this declined to 1.5 times in 2010.

In 2010, some differences in poverty rate were associated with whether a household had one or more members with disabilities. The poverty rate was higher among people in households with at least one disabled member, particularly where the head was more than 80 years old (Figure 2). Incidence was slightly higher among those with severe disabilities. However, when controlling

**Figure 2: Poverty rate by disability status and age of household head, 2010**



for other characteristics, there is no significant difference in likelihoods between these groups.

**Table 5: Poverty rate by gender of household head and location, 2005 and 2010 (%)**

Location	Household head	2005	95% Confidence interval		2010	95% Confidence interval	
		Share	LB	UB	Share	LB	UB
Rural	Male	47	LB 46	UB 48	36	LB 34	UB 38
	De jure female	43	LB 40	UB 46	32	LB 28	UB 37
	De facto female	20	LB 18	UB 23	23	LB 18	UB 28
Urban	Male	20	LB 20	UB 21	22	LB 20	UB 25
	De jure female	26	LB 22	UB 29	22	LB 14	UB 30
	De facto female	14	LB 11	UB 18	7	LB 3	UB 11
Total	Male	40	LB 40	UB 41	32	LB 31	UB 34
	De jure female	39	LB 37	UB 41	30	LB 26	UB 34
	De facto female	19	LB 17	UB 21	20	LB 16	UB 24

Note: LB=lower bound, and UB=upper bound of the estimate

## Access to basic services

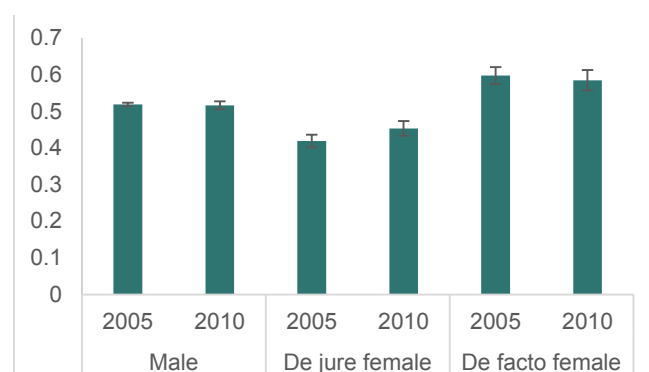
### Key messages

- Among male-headed households, Muslim and Hindu households were about 12 percentage points more likely to have sanitation than the other minority religions in 2005, which increased to 20 percentage points by 2010. They were 1.3 times as likely to have sanitation than the latter in 2005 compared to 1.7 times in 2010.
- *De facto* female-headed households belonging to the Muslim majority were 2.3 times as likely as *de jure* female-headed households of religious minorities to have sanitation in 2005. This ratio increased considerably, to 2.8, in 2010.
- Electricity coverage among *de jure* female-headed households was significantly lower than among *de facto* female-headed and male-headed households in both rural and urban areas: 34% of rural and 85% of urban *de jure* female-headed households had electricity in 2010.

Access to improved sources of drinking water was high in Bangladesh – with coverage exceeding 95% in both 2005 and 2010. Differences associated with living in urban or rural areas or with the characteristics of the household head, the disability status of household members or even consumption quintile were very few. Coverage exceeded 90% in all regions. Although there may be differences in quality of water, due to data limitations and for brevity, this section focuses on other indicators of basic services. Only about half of households had access to improved sanitation in both 2005 and 2010. As may be expected, there is a wealth effect: in 2010, one-third of households in the bottom quintile benefited from improved sanitation compared with 82% in the top quintile.

In addition, urban households fared much better than their rural counterparts. About 43% of rural households used improved sanitation facilities in 2010 compared with

**Figure 3: Likelihood of having improved sanitation by gender of household head, 2005 and 2010 (%)**



69% of urban households. However, worryingly, coverage in urban areas deteriorated over the five-year period by 11 percentage points, while it improved slightly, by 2 percentage points, in rural areas.

There were also variations associated with characteristics of the household head (Table 6). In 2010, among *de jure* female-headed households, only about a third of rural and two-thirds of urban households had improved sanitation access. In comparison, 41% and 58% of male-headed households, and 77% and 74% of *de facto* female-headed households in rural and urban areas, respectively, had improved sanitation. Inequality in coverage declined between 2005 and 2010 in both rural and urban areas.

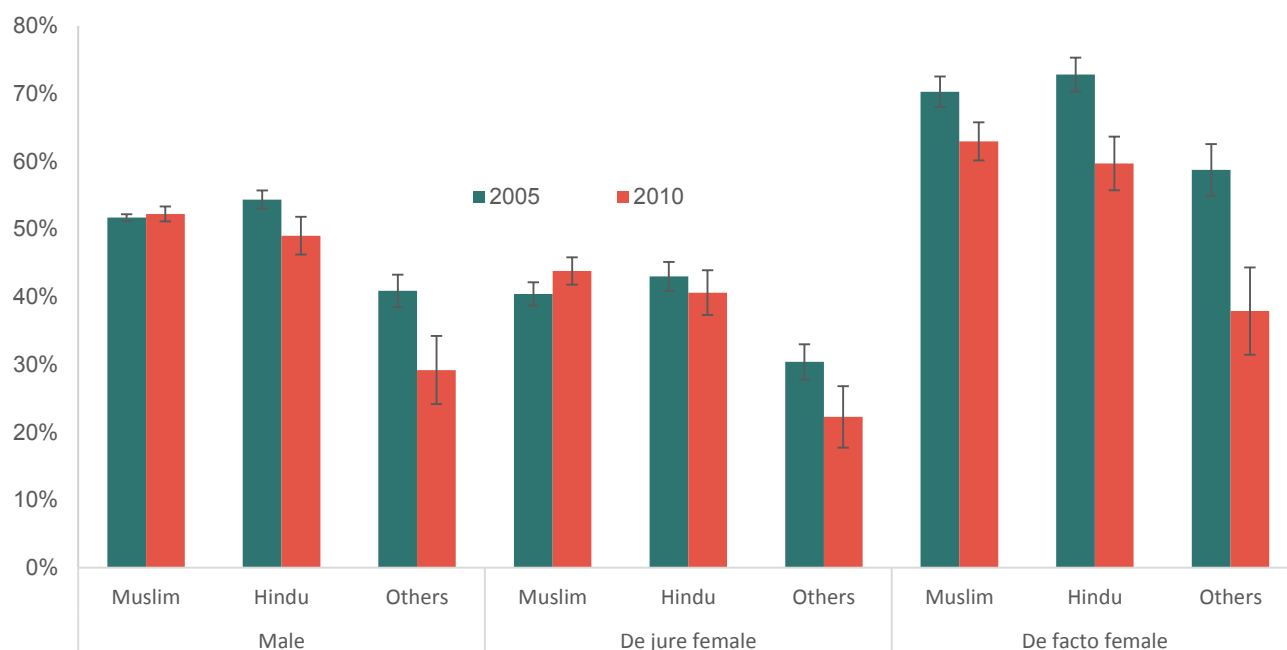
The likelihood of having improved sanitation facilities was lowest among *de jure* female-headed households (Figure 3). On average, these were 13 percentage points less likely than *de facto* female-headed households and 8 percentage points less likely than male-headed households to have improved sanitation in 2010. Between 2005 and 2010, the gap between *de jure* female-headed households and *de facto* female-headed households reduced by 5

**Table 6: Sanitation coverage by gender of household head and location, 2005 and 2010 (%)**

Household head	2005			2010			Change (Percentage points)
	Share	95% Confidence interval		Share	95% Confidence interval		
Rural							
Male	41.3	LB 40.1	UB 42.6	41.4	LB 38.6	UB 44.1	0.0
De jure female	31.7	LB 27.4	UB 36.0	35.1	LB 30.8	UB 39.5	3.4
De facto female	65.6	LB 59.5	UB 71.6	58.4	LB 52.8	UB 64.1	-7.2
Urban							
Male	81.2	LB 79.9	UB 82.4	77.0	LB 73.2	UB 80.7	-4.2
De jure female	70.2	LB 63.4	UB 77.1	65.9	LB 56.9	UB 75.0	-4.3
De facto female	87.1	LB 80.1	UB 94.0	73.6	LB 60.2	UB 87.0	-13.4

Note: LB=lower bound, and UB=upper bound of the estimate

**Figure 4: Likelihood of improved sanitation by religion for de jure female-headed households, 2005 and 2010 (%)**



percentage points. In relative terms, inequality reduced slightly as *de facto* female-headed households were 1.4 times as likely as *de jure* female-headed households to have improved sanitation in 2005 and 1.3 times in 2010. Not all female-headed households fared the same. For instance, religion was associated with considerable variations (Figure 4). Overall, religious minorities – mainly Buddhists and Christians (1% of population) – were less likely to have improved sanitation than the Muslim majority (88% of population) and Hindus (11% of population). However, inequality between Hindus and Muslims compared with other religious minorities increased. For instance, among male-headed households, Muslim and Hindu religious groups were about 12 percentage points more likely to have sanitation than the other minorities in 2005, and this increased to over 20 percentage points by 2010. In relative terms, they were 1.3 times as likely to have sanitation in 2005 compared with about 1.7 times in 2010.

Similar trends exist based on gender of household head for all religious groups. *De jure* female-headed households among the religious minorities fared worst. For instance, *de facto* female-headed households belonging to the Muslim majority were 2.3 times as likely as *de jure* female-headed households of religious minorities to have sanitation in 2005. This ratio increased considerably to 2.8 in 2010.

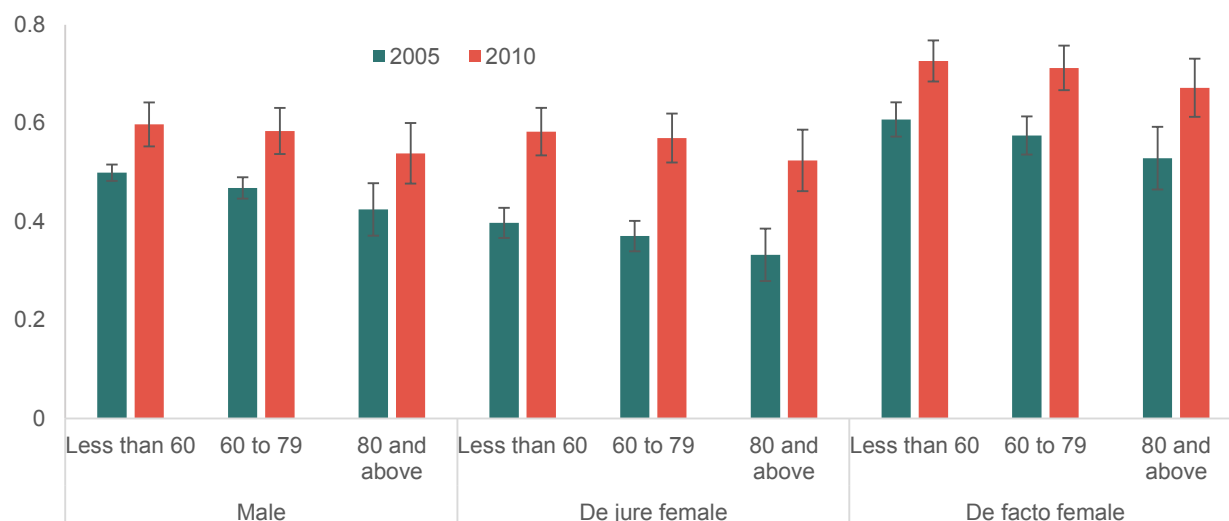
In the case of electricity, coverage improved considerably. About 44% of households had electricity in 2005 and this share had increased to 55% by 2010. Patterns of inequality in electricity coverage were similar to many of those in improved sanitation across quintiles, location and religion, although inequalities were starker for electricity. For instance, only about a quarter of households

in the poorest quintile had electricity compared with 85% of households in the richest quintile in 2010. Coverage was much higher in urban areas, where 90% of households had electricity – about double that in rural areas.

Electricity coverage among *de jure* female-headed households was significantly lower than among *de facto* female-headed and male-headed households in both rural and urban areas: 34% of rural and 85% of urban *de jure* female-headed households had electricity in 2010 (Table 7). However, the situation improved over time. While coverage for *de facto* female-headed households was 31 percentage points more than for *de jure* female-headed households in rural areas in 2005, the gap declined to 25 percentage points in 2010. For urban areas, it had declined from 17 to 11 percentage points. The gap also fell in relative terms: coverage among *de facto* female-headed households declined from 2.4 times that among *de jure* female-headed households to 1.7 times.

Households headed by older people – particularly older *de jure* female-headed households – had a lower probability of electricity access (Figure 5). In 2005, among households where the head was 80 years or above, probability of having electricity for *de facto* female-headed households was 20 percentage points higher than for *de jure* female-headed households – or 1.6 times as high. By 2010, this gap had declined in absolute and relative terms: the probability was 1.3 times that of *de jure* female-headed households, or 15 percentage points. Not only the gap based on gender of household head declined but also the disparity between younger and older household heads. For instance, for *de jure* female-headed households with the head under 60 were 1.2 times as likely to have electricity in 2005, the difference was statistically insignificant in 2010.

**Figure 5: Likelihood of having electricity by household head's gender and age, 2005 and 2010 (%)**



Finally, access to communication services is also important. Mobile phone penetration has increased exponentially: while only about 11% of households reporting owning a mobile phone in 2005 this had increased to 64% in 2010. However, the likelihood of owning a phone is influenced by various factors. There were considerable differences based on disability status and age. The likelihood of having access to mobile phones lowest among households where the head is over 80 years in 2010 (Figure 6). The gap between the best performing group – households where no member has a disability and the household head is under 60 years – and the group that fared worst – households with at least one member with a severe disability and where the household head was 80 years of above – was 26 percentage points. Households in the former group were 1.6 times as likely to have a mobile phone as those in the latter.

## Education and health

### Key messages

- Women in rural areas fared considerably worse than their urban counterparts on education. However, the probability of being literate increased the most among rural women.
- The probability of giving birth in the presence of a skilled birth attendant was lowest in *de jure* female-headed households in 2005, but they made the largest improvements.

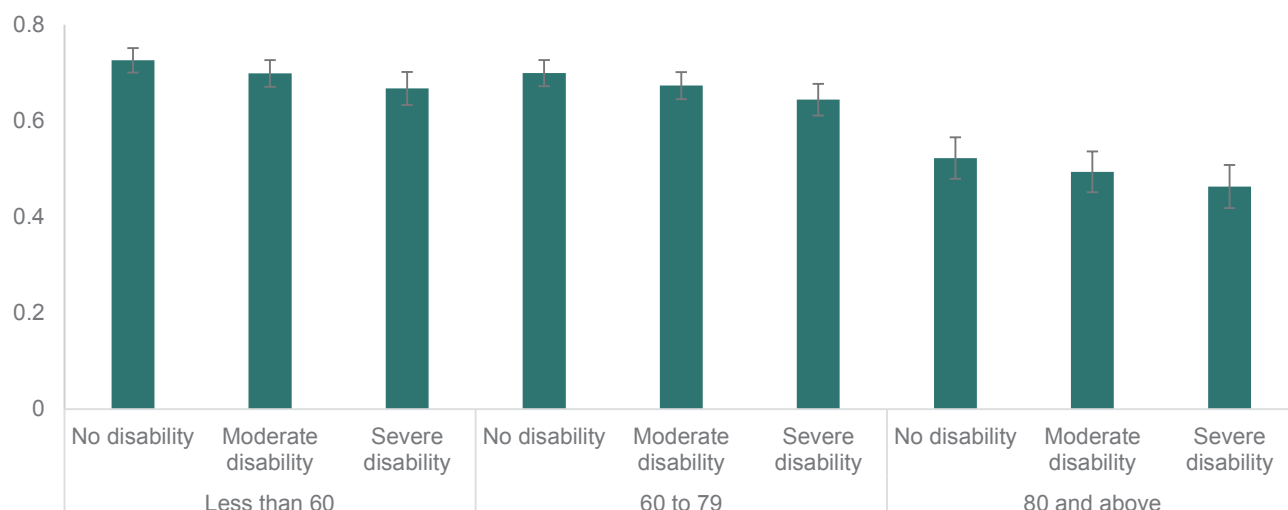
Educational attainment in Bangladesh improved between 2005 and 2010. Improvements in literacy were recorded for all age groups for both men and women. The literacy rate<sup>6</sup> increased from 49% in 2005 to 56% in 2010 among females and from 57% to 63% among males, resulting in a

**Table 7: Electricity coverage by location and gender of household head, 2005 and 2010 (%)**

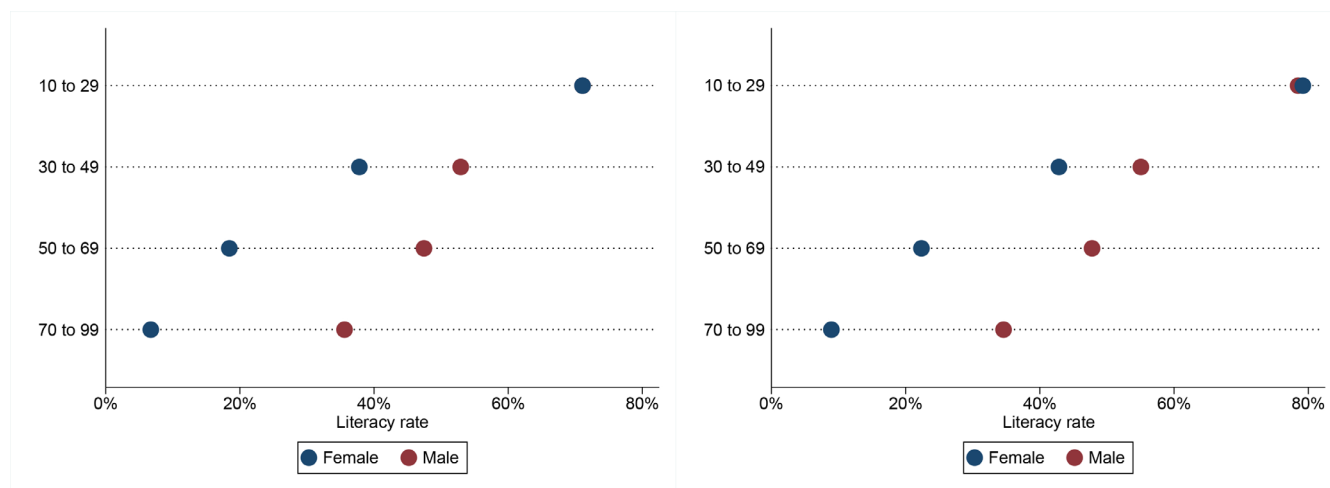
Household head	Location	2005			2010		
		Share	95% Confidence interval		Share	95% Confidence interval	
Male	Rural	31	30	32	42	39	45
	Urban	84	82	85	90	88	92
De jure female	Rural	23	19	26	34	29	39
	Urban	67	60	74	85	80	89
De facto female	Rural	54	47	60	59	52	65
	Urban	84	78	90	96	93	98

<sup>6</sup> This was calculated for people seven years and above, with a person identified as literate if they could read a letter.

**Figure 6: Likelihood of owning a mobile phone by disability status and age of household head, 2010 (%)**



**Figure 7: Literacy rate by age group and gender, 2005 and 2010**



**Figure 8: Likelihood of being literate by gender and location, 2005 and 2010 (%)**



1 percentage point decline in the gender gap. The gaps have, perhaps expectedly, fallen faster for younger people (Figure 7). Women in rural areas fared considerably worse than their urban counterparts: rural women were 11 percentage points less likely to be literate than urban women in 2005. However, the difference declined to 6 percentage points in

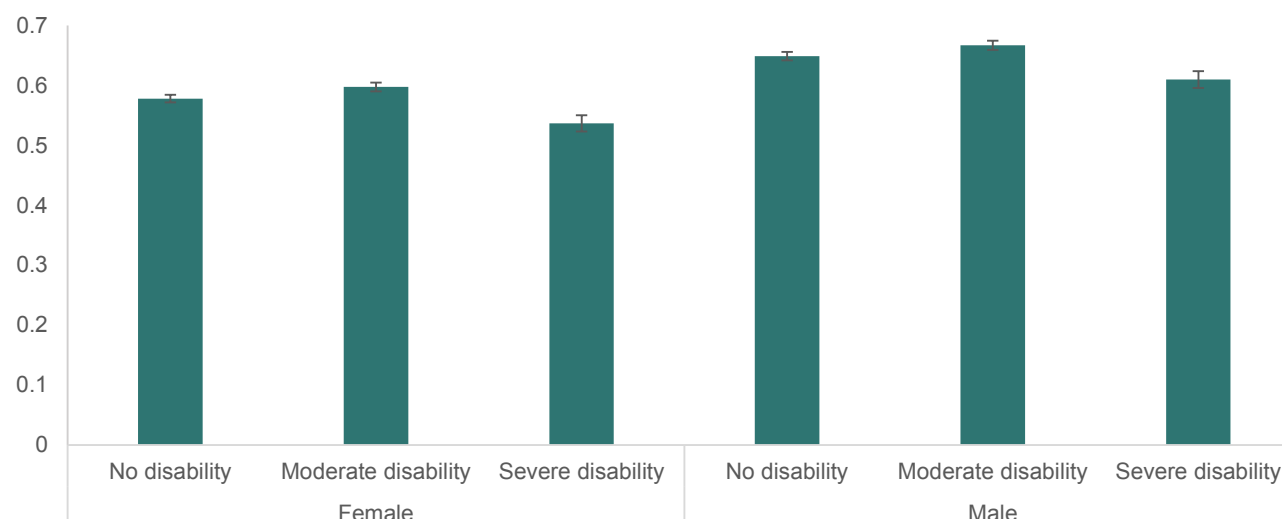
2010. In turn, probability of being literate increased the most among rural women (Figure 8): from 49% to 56% compared with 59% to 62% for urban women and from 57% to 64% for rural men.

Disability status is also associated with education outcomes. The literacy rate for people in households where at least one member has a moderate disability is at least as high as among households where no members suffer from any disability (the differences are not statistically significant). However, perhaps expectedly, this trend is reversed in the case of severe disabilities (Figure 9).

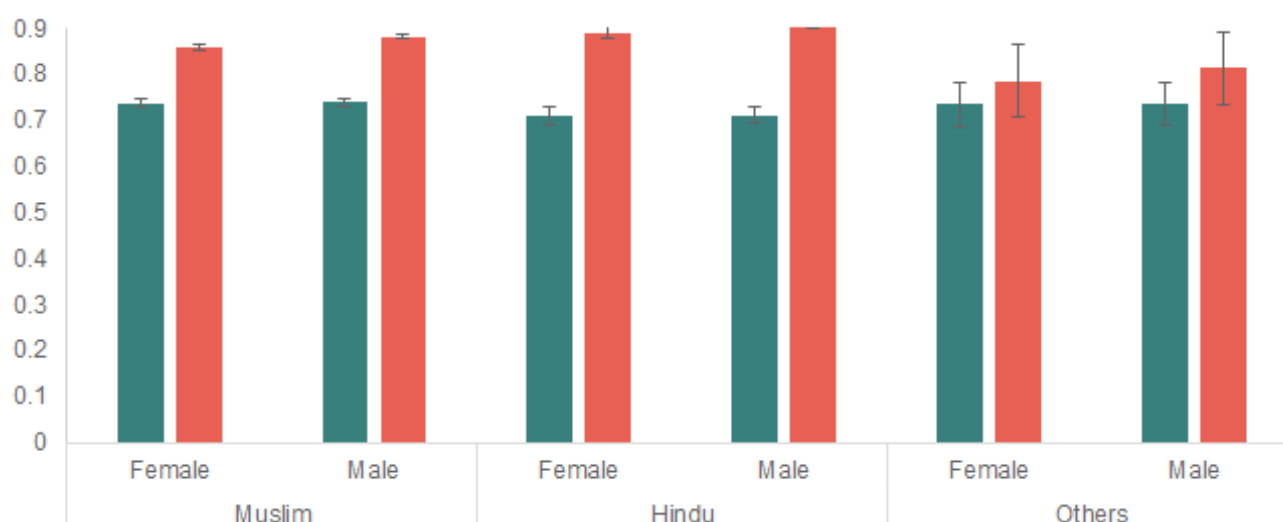
The HIES does not contain information on nutritional status and child or maternal mortality. However, it includes data on access to health care; this section explores differences in immunisation coverage and presence of a skilled health professional during childbirth.

Our analysis uses the measles vaccine as an indicator of access to child health care, following the MDG indicator<sup>7</sup> (although we examine coverage for children under five years), and as measles is the leading cause of child

**Figure 9: Likelihood of being literate by gender and disability, 2010 (%)**



**Figure 10: Likelihood of children (0-5 years) having measles vaccine by religion and gender, 2005 and 2010 (%)**



mortality among vaccine-preventable childhood diseases (WHO, n.d.). Immunisation coverage - i.e., the share of children under five years who received a measles vaccine recorded an impressive increase, from 74% in 2005 to 87% in 2010. The disparity between boys and girls was negligible in both years.

In 2005, 71% of rural children were vaccinated compared with 78% of urban children. However, this disparity was all but eliminated as coverage improved in 2010 to reach 87% of children in rural areas and 88% in urban areas.

Gaps between religions have emerged. In 2005, coverage was over 70% for both girls and boys irrespective of

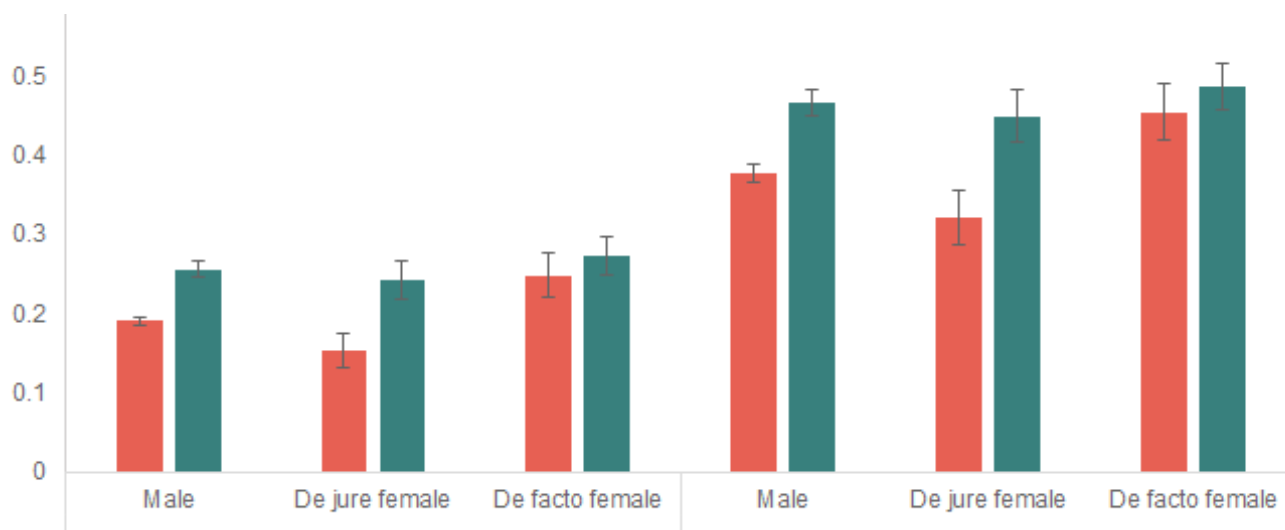
religion; all groups had progressed by 2010 but to different extents (Figure 10). Children from minority religions were 7 percentage points less likely to be immunised compared with Muslim children (statistically insignificant difference) and about 10 percentage points less likely to be immunised than Hindu children, the largest religious minority (statistically significant difference).

Coverage of health care facilities for childbirth has increased, though it remains low overall:<sup>8</sup> 21% of women who had children reported having given birth in the presence of a skilled health professional (doctor, nurse or trained midwife) in 2005, and this figure had increased to

7 The indicator for immunisation of children in the MDGs is 'Proportion of 1 year-old children immunized against measles', since its level of coverage is likely to represent coverage for other antigens (BCG, DPT and polio), and these are given before the measles immunisation.

8 Owing to data limitations, this indicator is calculated based on responses given by women of reproductive age (15 to 44 years), irrespective of the year in which they gave birth.

**Figure 11: Likelihood of giving birth with a skilled birth attendant by household head gender and location, 2005 and 2010 (%)**



25% by 2010. The share of women with access to health care professionals was larger in urban areas (38%) than in rural areas (20%). The low coverage indicates under-investment in maternal health overall.

*De jure* female-headed households fared the worst in 2005. The probability of giving birth in the presence of a skilled birth attendant in these households was 15% in rural areas and 32% in urban areas, compared with 25% and 46% for *de facto* female-headed households (Figure

11). However, *de jure* female-headed households made the largest improvements by 2010, reducing the disparities: the probability of giving birth in the presence of a skilled attendant had increased by 58% in rural areas and 40% in urban areas. The increase for *de facto* female-headed households, in contrast, was 10% and 7%, respectively. This suggests services are making an effort to reach out to people previously excluded, and/or social and institutional changes are having an effect.

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# A narrowing gap?

## Discussion of inequality in Bangladesh

The data analysis using Bangladesh's HIES demonstrates the gaps in various indicators of wellbeing across a few group-based characteristics. While evidently various group-based characteristics are associated with higher levels of deprivation compared with the population average (e.g. religion, location) this analysis has focused on gender, age and disability status.

For gender, we look at female-headed households and the individual outcomes of girls and women compared with men. Improvements are evident between 2005 and 2010 in terms of a declining disadvantage for *de jure* female-headed households. The gap between *de jure* female-headed households and the others, notably *de facto* female-headed households – which fare best on most outcomes – has declined. The gaps in terms of poverty and access to services has reduced dramatically, telling a story of progress. While *de jure* female-headed households continue to fare worse than other types of households, the analysis reflects some concrete gains in relative and absolute terms. Similarly, gaps in literacy between men and women have fallen for all age groups. The gains made by women and *de jure* female-headed households on the wide range of outcomes reflect wider improvements in terms of reducing gender-based inequalities in Bangladesh (Box 2).

It is worth noting that this progress has occurred in a context where the shares of both *de jure* female-headed and *de facto* female-headed households in the population increased markedly. The increase in the former is indicative of changing social norms whereas that in the latter points to migration patterns in the country.

Apart from gender-based differences – which have been declining – households headed by older members show lower levels of access to basic services than others. Yet the analysis found that, as coverage has increased overall, the gaps have reduced – such as in the case of electricity. However, these groups have lagged behind in many respects. For instance, while mobile phone penetration increased many times over between 2005 and 2010, ownership remains lowest among households headed by older people.

The wider literature shows that households with older heads or members tend to be poorer than other households (Masset and White, 2004). While this has not been found in Bangladesh, this may owe to the selection bias (life expectancy may be higher among the wealthier households). Nonetheless, going forward, ageing is a specific concern for the LNOB agenda in all countries. This is in particular because the global population is ageing: people aged 60 years and above account for 11% of the global population, and is expected to increase to 22% by 2050 (Samman and Rodriguez-Takeuchi, 2013). The largest increase in population among the elderly is expected in developing countries, which would have serious implications for people and also for social policy.

In addition, disability and old age are often associated with even deeper deprivations. Overall, households having a member with a disability – particularly a severe disability – were found to be associated with lower wellbeing. As the analysis reveals, people with severe disabilities are less likely to be literate. In addition, households with disabled member were found to have higher incidence of poverty, particularly where an older person was the head of the household. They also have lower access to basic services, such as communication technology. However, it must be noted that people with disabilities are not a homogenous group, and the impact of disability on wellbeing often differs significantly depending on its nature and extent as well as the presence of social policies (Mitra et al., 2013).

While disability was relatively neglected in the MDGs, it is important the SDGs measure progress for disabled people, who often fare worse on many outcomes. Some countries have already implemented several policies that aim to include people with disabilities (see, e.g., Box 3) but these have met with varying degrees of success. Going forward, it is key that these policies are mainstreamed and awareness created to ensure their implementation.

Yet these findings may be an underestimate owing to challenges in identifying all disabled people. The Washington Group core questionnaire is believed to provide one of the more comprehensive ways of identifying

disability, but the available data are likely to exclude the substantial share of the population with mental illness (although measuring cognitive disabilities captures some of this). Mental health in particular remains largely ignored; despite being a considerable contributor to the global

burden of disease, little data exist to understand the extent of mental illness and how mental health is related to other deprivations (Samman and Rodriguez-Takeuchi 2013).

## **Box 2: Improvements in gender-based inequalities in Bangladesh**

Until a few decades ago, Bangladesh exhibited numerous manifestations of gender inequality and patriarchy and had one of the most adverse sex ratios in the world, as characterised by the phenomenon of ‘missing women’ (Sen, 1989). There was also evidence of intra-household gender differences, with gender discrimination in food distribution, feeding practices and use of health services, particularly among children and the elderly (Chen et al., 1981).

Owing to patrilocal post-marital residence patterns, whereby daughters leave their parental home to live with their husband and his kin, parental investment in girls was often low and widely compared with ‘watering the neighbour’s tree’ as households would not reap any benefits of investing in daughters who would then marry and leave the household (Kabeer, 1985; Kaur, 2007). Strict controls over women’s mobility meant they were largely confined to unpaid domestic work (Huq et al., 2012). This, in turn, led to a high dependency of women on men for both provision and protection throughout their lives, and contributed to a strong culture of ‘son preference’. However, more recently, this son preference appears to have diminished (ibid.) and gender differentials in mortality have gradually declined.

Although the status of women and girls remains low in some aspects (Hossain, 2012), Bangladesh is cited as a successful example of the promotion of gender equality since the 1990s. Bangladesh has achieved gender parity in primary and secondary education at the national level (Bangladesh Planning Commission, 2013).

This positive development has occurred as a result of some specific public interventions focusing on girl students, such as stipends and exemption of tuition fees for girls in rural areas and the stipend scheme for girls at the secondary level.

The country has made significant progress in achieving gender equality and female empowerment. Although wage employment for women is still low, with only one out of every five women working in wage employment in the non-agricultural sector (Bangladesh Planning Commission, 2013), their situation has improved over time.

About 60% of the increase in women’s paid work during the 2000s was concentrated in urban areas, of which about half was in the manufacturing sector. The ready-made garments (RMG) manufacturing sector has played a crucial role. In addition, RMG employment has increasingly been a source of power for women, since incomes help increase their bargaining power within the household, and because of the collective effects on women’s citizenship and political agency.

Another pathway to women’s empowerment has been microcredit, in which the scale of Bangladeshi women’s collective participation has been unprecedented (Hossain, 2012). Although the academic evidence on the benefits of microfinance has been mixed, it has been found to improve women’s control over resources and domestic bargaining power (Goetz and Sen Gupta, 1996; Kabeer, 1999). Microfinance programmes for women have expanded rapidly since the 1990s and are a prominent instrument of Bangladesh’s strategy for addressing poverty and vulnerability.

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**Box 3: Inclusion of people with disabilities in Cambodia**

As a post-conflict country, Cambodia is subject to a number of risk factors related to high prevalence of disability, including physical and psychosocial impairments. The government has demonstrated commitment to improving the lives of people with disability: the country now has a range of good policies on disability:

- The Anti-Personnel Mine Ban Treaty, signed in 1999;
- The Policy on Education for Children with Disabilities (2008) and its Master Plan (2009);
- The Law on Protection and Promotion of the Rights of People with Disabilities (2009);
- The National Plan of Action for Persons with Disabilities, including landmine/explosive remnants of war survivors (2009) and a National Disability Coordination Committee to support its implementation;
- The Convention on the Rights of Persons with Disabilities, ratified in 2012;
- The 2014-2018 National Strategic Development Plan.

However, implementation has been more challenging. For instance, little has been done in practice to remove the barriers people with disabilities face in accessing public places, public services and information. Streets usually do not have pavements and most public buildings do not have accessible entrances. Voter registration offices and polling stations are often located in inaccessible locations. Most health centres are in cities and provincial towns, which are difficult to reach for disabled people in rural areas, and most health care providers still do not have adequate training on how to communicate, treat and better serve patients with disabilities.

Most children with disabilities are still prevented from attending school by social discrimination, physical barriers and lack of teachers with appropriate training. The Policy on Education for Children with Disabilities focuses only on those with physical disabilities, neglecting the needs of children with intellectual and psychosocial disabilities. Little has been done so far to advance the inclusion of children with visual, hearing and intellectual/cognitive disability in mainstream schools. Young people with disabilities have very little chance to be involved in vocational training, which is compounded by the fact that most live in rural areas.

While the country's policy framework – and the presence of a disability-focused civil society – constitutes a solid starting point to address the rights and needs of people with disabilities, the real challenge lies in actual implementation of the framework as well as better coordination of the various actors operating in the area.

# Ethnicity and marginalisation in Vietnam

Until the 1980s, Vietnam was an impoverished country, emerging from decades of war that had resulted in damage to infrastructure, loss of life and the injury or displacement of millions (Rama, 2008). However, in 1986, Vietnam initiated a series of economic and political reforms known as the *Doi Moi* which began to integrate the country into the global economy.

Since then, Vietnam has made substantial progress on many fronts; after being a least-developed country in 1990 Vietnam is now a lower-middle income country. Several different poverty lines are in common usage there, and all show dramatic and sustained decreases in poverty over the past 25 years. The country has all but eliminated extreme poverty; the share of people living on less than \$1.25 a day (in 2005 purchasing power parity (PPP)) has declined dramatically, from 64% in 1993 to 21% in 2006 and further to 2% in 2012 (World Bank PovcalNet).

Vietnam has also made significant progress in achieving universal primary education and eliminating gender inequality in enrolment. The under-five mortality rate reduced to 23 per 1,000 live births in 2012, making Vietnam one of the countries with the lowest child mortality rates among Association of South-East Asian Nations countries (Ministry of Planning and Investment, 2013).

Notwithstanding overall progress, gaps remain and aggregate achievements obscure the varying trajectories of different groups within the country. Income inequality in Vietnam is modest by international standards: the Gini coefficient was 0.36 in 2012 (WDI). However, Vietnam is an ethnically diverse country marked by considerable ethnic inequalities (Box 4). Deprivation also has a strong spatial bias, with the highest poverty rates in the upland areas of the Northern Mountains and Central Highlands, where many of the ethnic minorities live. This section illustrates<sup>9</sup> some of the persisting inequalities by focusing on regional and ethnic disparities in human development outcomes, how they overlap and how they have changed over time.

Today, the Kinh are located in all regions. However, until quite recently, the Kinh and minority communities were often separated by physical distances; the former primarily occupied lowland and coastal lands and the latter lived in the highlands (World Bank, 2009). After the reunification of North and South Vietnam in 1976, the government set up many agricultural cooperatives, state farms and forest enterprises in highland areas. This along with other policies encouraged large numbers of Kinh to move to the minority-dominated highlands (Hardy, 2003). The *Doi Moi* reforms opened up opportunities

## Box 4: Regions and ethnic groups in Vietnam

Vietnam is a diverse country with a sizeable population of ethnic minorities. The majority ethnic group, the Kinh, constitute 86% of the population. In addition, the government officially recognises 53 ethnic minority groups. These groups vary vastly in size. The largest, the Tay, had over 1.6 million members, while the smallest, the O Du, had less than 400 as of 2009 (ibid.). The seven largest minority groups – the Tay, Thai, Muong, Khmer, Hoa, Nung and Hmong – together represent 10% of the population.

Each group has its own language, lifestyle and cultural heritage. The languages most use belong to one of the five language families of South-East Asia and are considered part of the historical and cultural tradition that spreads from south of the Yangtze to the islands of South-East Asia.

Some of the minority groups (e.g. Tay and Thai) predate Vietnamese settlements, while others – such as the Hanhi, Lahu and Lolo – migrated as recently as the 17th to 19th centuries (Dang et al., 2000). Ethnic minorities are geographically concentrated in certain regions of the country (Table 8). About 80% of people belonging to minority groups – including large shares of the Tay, Thai, Muong, Nung and Hmong – live in the Northern Midlands and Mountain Areas which border China, and the Central Highlands that border Laos and Cambodia. Other regions also have some minority populations. For instance, many ethnic minorities – particularly the Khmer and Hoa or Chinese – live in the Mekong River Delta.

9 All numbers, tables and figures in this section are based on Vietnam's MICS survey for 2006 and 2011 unless otherwise stated.

**Table 9: Population by groups (%)**

Category	Group	2006	2011
Place of residence	Rural	74.8	70.5
	Urban	25.2	29.5
Region	Red River Delta	22.2	21.1
	Northern Midlands and Mountains	14.9	16.5
	North Central and Central Coastal	22.2	21.5
	Central Highlands	3.9	5.8
	South-East	16.0	16.1
	Mekong River Delta	20.7	19.2
Gender	Male	49.3	49.0
	Female	50.7	51.0
Ethnicity	Majority (Kinh and Hoa)	86.0	87.9
	Minority	14.0	12.1
Total sample size	Individuals		44,820
	Households	8,356	11,612

in plantations, particularly coffee exports, which were profitable. With the lifting of household registration requirements, migration to the highlands increased and the Kinh are now dominant in many previously minority areas.

The different minorities vary tremendously in terms of assimilation and economic status. Nonetheless, in the present analysis, 52 of the minority ethnic groups are classified together as ‘ethnic minorities’. This is because the MICS data only disaggregate certain ethnic groups (Kinh and the seven largest minority groups in 2011); even among these, small sample sizes make it difficult to obtain statistically significant results. In addition, despite differences between minority groups, there is a common thread of disadvantage they all face – and this paper seeks to examine how this has evolved.

One of the ethnic groups, the Hoa, is not classified as an ethnic minority but rather counted along with the Kinh. Although by definition only the Kinh can be considered an ethnic majority, the Hoa are not usually considered a minority owing to their high cultural assimilation with the Kinh and since they are among the wealthiest ethnic groups (Dang, 2010). Consequently, following van de Walle and Gunewardena (2000), we classify the Kinh and Hoa collectively as the ‘majority’ group (see also Dang, 2010; Imai and Gaiha, 2007).

Table 9 outlines the composition of the population in 2006 and 2011 as reported in the MICS. The urbanisation rate increased from 25% in 2006 to 30% in 2011.

Regionally, the population share of the lowest populated

regions – the Central Highlands (4% in 2006 and 6% in 2011) and the Northern Midlands and Mountains (15% in 2006 and 17% in 2011) – increased the most. In comparison, the share of people living in the Red River Delta (where Hanoi is located), North Central and Central Coastal, the South-East (which contains Ho Chi Minh City) and the Mekong River Delta remained fairly stable or declined slightly. In terms of ethnic groups, the proportion of majority ethnic groups (consisting of the Kinh and Hoa minority) in the population increased by 2 percentage points – from 86% to 88% between 2006 and 2011.

## Monetary poverty

### Key messages

- In 2006, the probability of being in the bottom quintile for households headed by an ethnic minority in Vietnam was 3.2 that of the majority group counterpart, which increased to 3.5 by 2011.

The MICS does not include information on income or expenditure, and, as a result, does not lend itself to estimating income or consumption poverty rates. However, households are classified into wealth quintiles based on asset ownership and other characteristics.<sup>10</sup> This section examines trends in poverty – in this case, though, a relative measure of being in the bottom quintile of the wealth index.

<sup>10</sup> Household were ranked according to a wealth score based on the ownership of consumer goods, dwelling characteristics, water and sanitation and other characteristics. The score is computed using principal components analysis. They were subsequently divided into five quintiles. The wealth index is assumed to capture underlying long-term wealth but does not provide information on current income or expenditure levels.

**Table 10: Share of households in the lowest wealth quintile by ethnic group, 2006 and 2001 (%)**

	Ethnic minority			Ethnic majority		
	Share	95% Confidence interval		Share	95% Confidence interval	
2006	70.9	LB 60.8	UB 79.3	12.9	LB 10.0	UB 16.5
2011	68.3	LB 61.6	UB 74.4	14.6	LB 13.1	UB 16.2

Note: LB=lower bound, and UB=upper bound of the estimate

**Table 11: Share of households belonging to lowest wealth quintile, by region, 2006 and 2011 (%)**

Region	2006			2011			Change (percentage points)
	Share	95% Confidence interval		Share	95% Confidence interval		
Red River Delta	1.6	LB 0.3	UB 2.9	7.0	LB 4.9	UB 9.0	5.4
Northern Midlands and Mountains	51.2	LB 34.7	UB 67.7	41.2	LB 33.8	UB 48.5	-10.0
North Central and Central Coastal	21.7	LB 14.9	UB 28.4	25.3	LB 20.4	UB 30.2	3.6
Central Highlands	40.2	LB 27.8	UB 52.7	25.7	LB 20.3	UB 31.2	-14.5
South-East	4.2	LB 1.9	UB 6.5	3.2	LB 1.9	UB 4.5	-0.9
Mekong River Delta	27.1	LB 19.1	UB 35.1	24.6	LB 20.4	UB 28.9	-2.5

Note: LB=lower bound, and UB=upper bound of the estimate

Using this measure, the poverty rate was roughly the same as Vietnam's poverty rate at the international extreme poverty line (\$1.25 PPP) of 21% in 2006 (WDI). With significant subsequent poverty reduction, the relative measure of the bottom 20% is much higher than the absolute poverty rate of 4% in 2011 (ibid.).

Poverty is concentrated among the ethnic minorities (Table 10). In 2006, about 71% of ethnic minority households were in the bottom wealth quintile compared with only 13% of the majority group. By 2011, there was slight improvement, though the change was not statistically significant.

Controlling for other factors,<sup>11</sup> the probability of a household belonging to the bottom quintile was much higher for ethnic minorities than for the majority – 46% compared with 14% for the ethnic majority in 2006. In 2011, these shares were 53% and 15%, respectively, with the gap increasing from 32 to 37 percentage points. In 2006, the probability of being in the bottom quintile for households headed by an ethnic minority was 3.2 times that of the majority group counterpart, and this ratio increased to 3.5 by 2011. As a result, the difference between the ethnic majority and minority widened in both absolute and relative terms.

Poverty is also spatially concentrated. Regionally, in both 2006 and 2011, the Red River Delta and the South-East – where the two largest cities are located – had the

lowest shares of those living in the bottom wealth quintile (Table 11). The Northern Midlands and Mountains, North Central and Central Coastal, and the Mekong River Delta – which are home to many of the ethnic minorities – have a significantly larger share of the poor. However, the share of households in the bottom quintile living in the Northern Midlands and Mountains and the Central Highlands declined substantially – by at least 10 percentage points. Moreover, there are considerable intra-group disparities, with regional differences among ethnic minorities. Minorities in the Red River Delta and the South-East are less likely to be in the bottom quintile than those in the rest of the country, when using the methodology in Box 1 (Figure 12). Ethnic minorities in the Red River Delta had a less than 20% chance of being in the bottom quintile, and living in the South-East was associated with a 35% probability. On the other hand, the probability of being in the bottom quintile was about 70% for minorities in the Northern Midlands and Mountains, North Central and Central Coastal, the Central Highlands and the Mekong River Delta. In 2011, ethnic minorities living in North Central and Central Coastal were nearly twice as likely to be in the bottom quintile as those in the South-East.

11 Regression analysis for Vietnam controls for wealth quintile (except where this is the dependent variable), ethnic group, subnational region, religion and location (urban/rural). In the individual-level analysis, the respondent's gender and age are added as additional controls.

Figure 12: Likelihood of being in the lowest wealth quintile for ethnic minorities, by region, 2006 and 2011 (%)

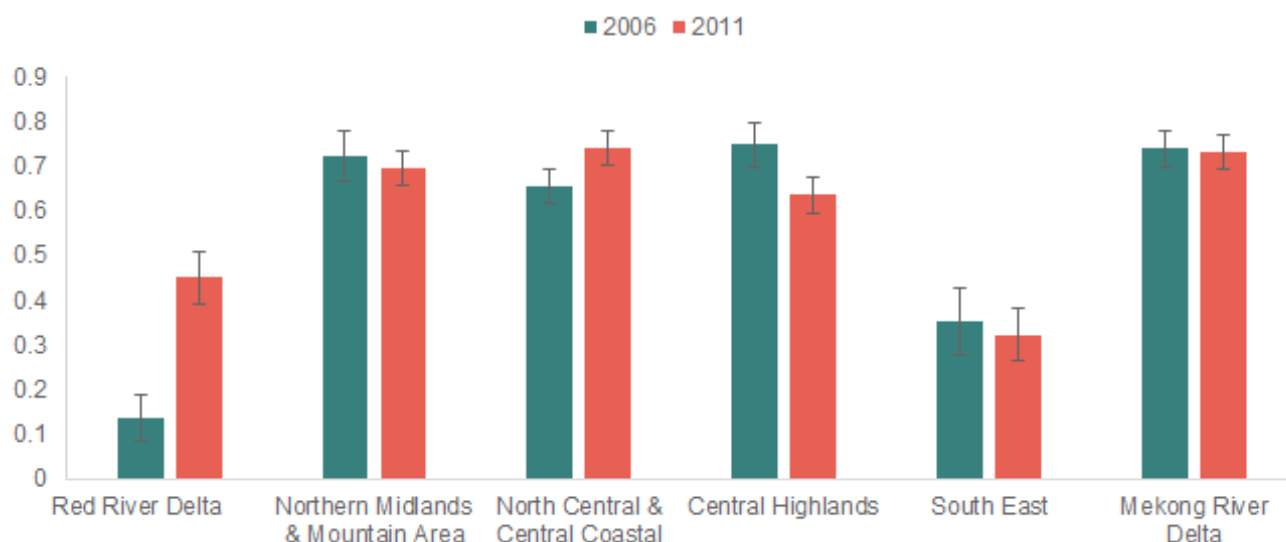
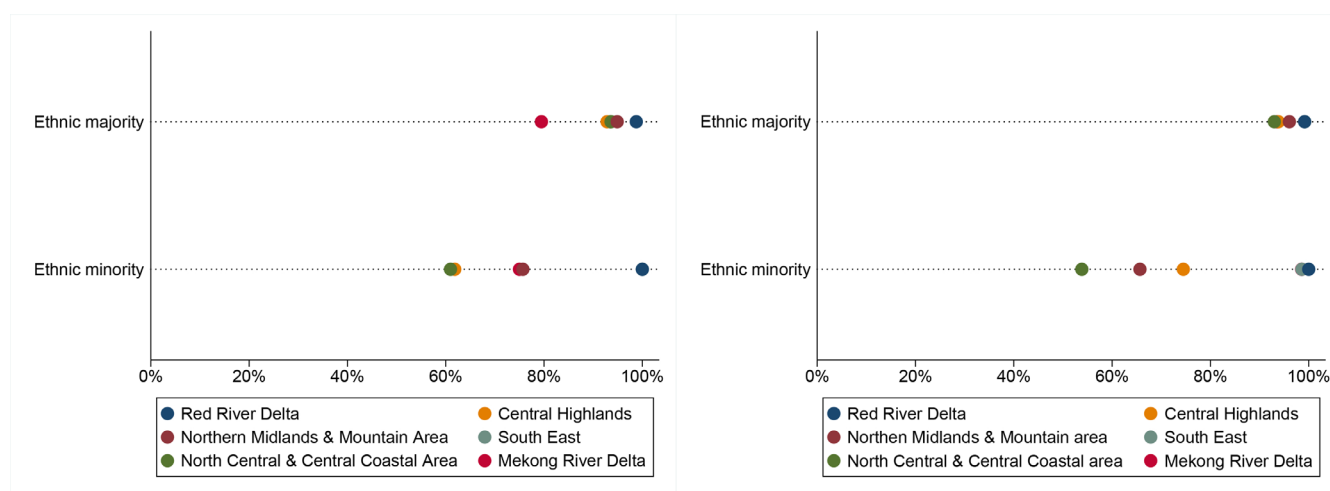


Figure 13: Access to improved drinking water source, by region and ethnic group, 2005 and 2011



## Access to basic services

### Key messages

- Access to improved sanitation facilities increased from 65% in 2006 to 79% in 2011; despite improvements for both groups access remained lower for ethnic minority households. The decline was not uniform in all parts of the country; the ethnic gap more than halved in the Red River Delta but the decline was much lower in other regions.
- In 2006, the probability of using a clean fuel was about a third for both the ethnic majority and minority groups; however, by 2011 the majority group had progressed faster.

Coverage of basic services is nearly universal in Vietnam. In 2011, 94% of households had access to improved drinking water sources and sanitation and 99% had electricity.

Coverage of improved drinking water sources improved from 90% in 2006 to 94% of households in 2011. It increased from 92% to 96% among the ethnic majority population, whereas it remained roughly constant at about 73% in both years for the ethnic minority groups.

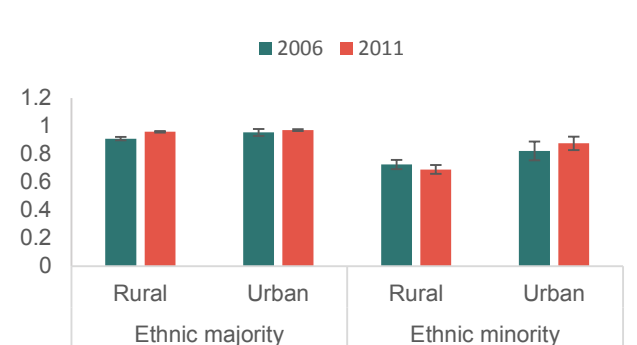
Yet there were disparities based on ethnicity in some regions: for instance, minority groups had considerably lower access to improved drinking water sources in North Central and Central Coastal, the Northern Midlands and Mountains, and the Central Highlands than their majority counterparts. But there was an improvement among minorities in the Central Highlands, where coverage increased by 13 percentage points, from 62% to 74%. On the other hand, coverage deteriorated for ethnic minorities in the Northern Midlands and Mountains, and North Central and Central Coastal Area while it remained fairly constant for the ethnic majority, leading to increased inequality (Figure 13). Access increased significantly in the Mekong River Delta – although this was greater for ethnic minorities,

among whom it increased from 75% to 99% compared with the majority, for whom it increased from 79% to 94%. The probability of having access to an improved drinking water source was 91% in 2006 and 95% in 2011 for ethnic majority households, compared with 83% and 87%, respectively, for the ethnic minority groups (although the increase was not statistically significant for the minorities). The gap between the majority and minority remained roughly constant in both absolute and relative terms.

Disaggregating by location, probability of coverage was 91% for the ethnic majority compared with 73% for ethnic minorities in rural areas, and 95% compared with 82%, respectively, in urban areas in 2006. Between 2006 and 2011, inequality between the ethnic majority and minority groups increased in both absolute and relative terms in rural areas but declined in urban areas, where minorities ‘caught up’ with the ethnic majority (Figure 14). In 2006, rural ethnic minority households were 18 percentage points less likely to access improved drinking water sources than their majority counterparts; with a reduction in coverage among ethnic minorities in 2011, this gap increased to 27 percentage points.

Access to improved sanitation facilities increased rapidly between 2006 and 2011 – from 65% to 79%, with improvements for both the ethnic majority group and minority groups. However, as with drinking water coverage, access to sanitation remained lower for ethnic minority households compared with the Kinh and Hoa. The probability of having improved sanitation increased from 68% to 81% for the ethnic majority and from 53% to 70% for minority groups. As a result, in absolute terms, the gap declined from 15 to 12 percentage points. Similarly, there was a small decline in relative terms - the majority

**Figure 14: Likelihood of having access to improved drinking water source, by ethnicity and location, 2006 and 2011 (%)**

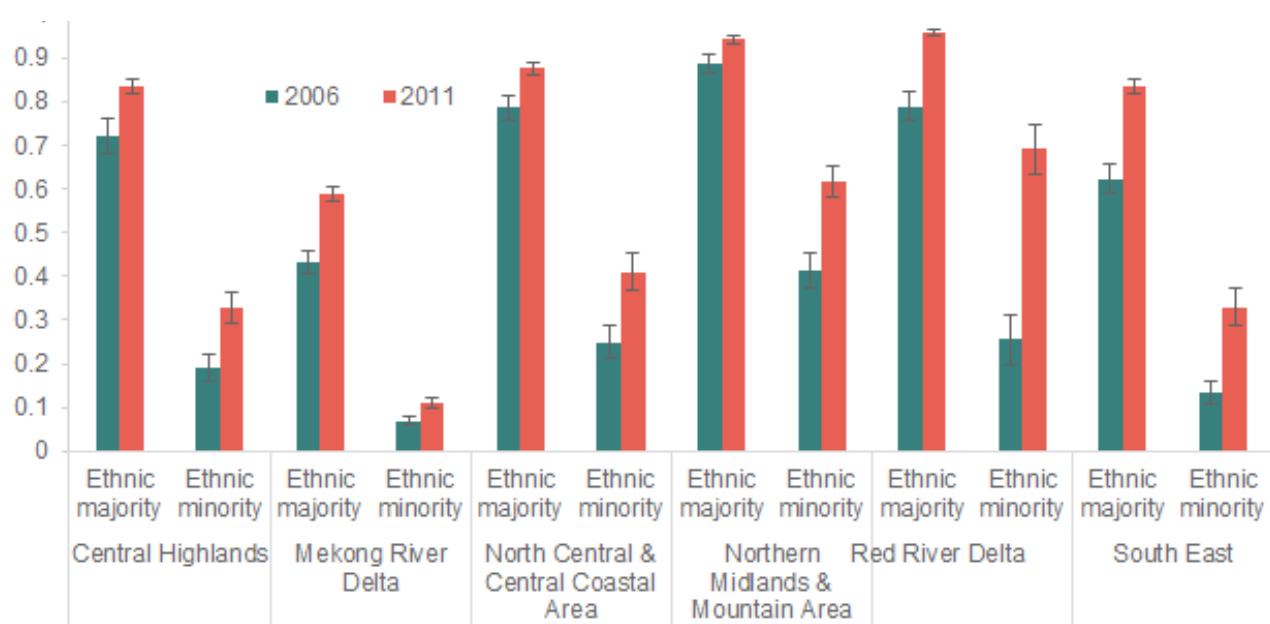


were 1.3 times as likely to have improved sanitation in 2006, and this declined to 1.2 times in 2011.

The decline was not uniform in all parts of the country (Figure 15). The ethnic gap more than halved in the Red River Delta (ethnic majority households were 3.1 times as likely to have sanitation as minority ethnicities in 2006, which declined to 1.4 in 2011). The decline in the ethnic gap was much lower in other regions. In the South-East and Mekong River Delta, the gap between the ethnic majority and minorities increased in absolute terms, by 2 and 12 percentage points, respectively, although it declined in relative terms.

Overall, access to electricity is almost universal in Vietnam, and the share of households with electricity access increased from 97% in 2006 to 99% in 2011. Electricity coverage reached at least 90% for all subnational regions, with little variation across rural and urban areas. Inequality in access between ethnic groups also declined sharply between 2006 and 2011. The share of households from minority ethnic groups with electricity improved by

**Figure 15: Likelihood of improved sanitation, by ethnicity and region, 2006 and 2011 (%)**



12 percentage points, from 84% to 96%, while it was over 99% for the ethnic majority in both years.

Despite high electricity coverage, fewer households used clean fuels to cook, with many still relying on solid fuels such as coal or wood. Further, variations across ethnic groups increased between 2006 and 2011. In 2006, the probability of using a clean fuel was about a third for both the ethnic majority and minority groups; however, by 2011 the majority group had progressed faster, creating a 6 percentage point difference (Figure 16). The probability of using clean fuel increased to 54% for the ethnic majority but only to 48% for minority groups.

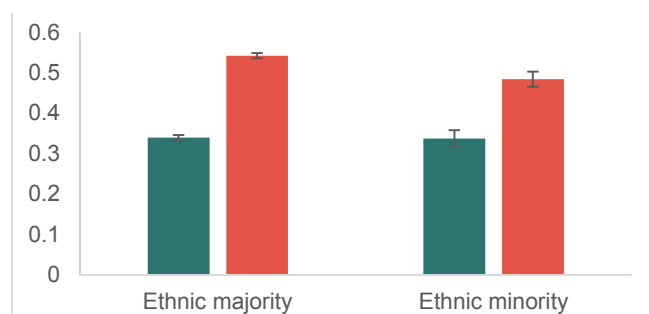
Disaggregating by region, the absolute gap between the ethnic majority and minority groups increased between 2006 and 2011 for all regions (Figure 17). The increase was the greatest in North Central and Central Coastal Area, where the gap between the ethnic majority and minority groups increased from 30 to 46 percentage points. However, relative inequality fell in all regions: ethnic majority households were 5.9 times more likely to use clean fuels than minorities in North Central and Central Coastal Area in 2006 and this declined to 4.9 in 2011. The corresponding figures were 6.2 and 4.8, respectively, in the Northern Midlands and Mountains.

## Education and health

### Key messages

- The probability of being in education poverty for the ethnic majority halved between 2006 and 2011 – from 8% to 4%. Ethnic minorities progressed much faster, almost catching up with the majority, as the probability of having less than four years of schooling declined from 17% to 6%. As these rates approach zero, the absolute difference declined but there was also progress

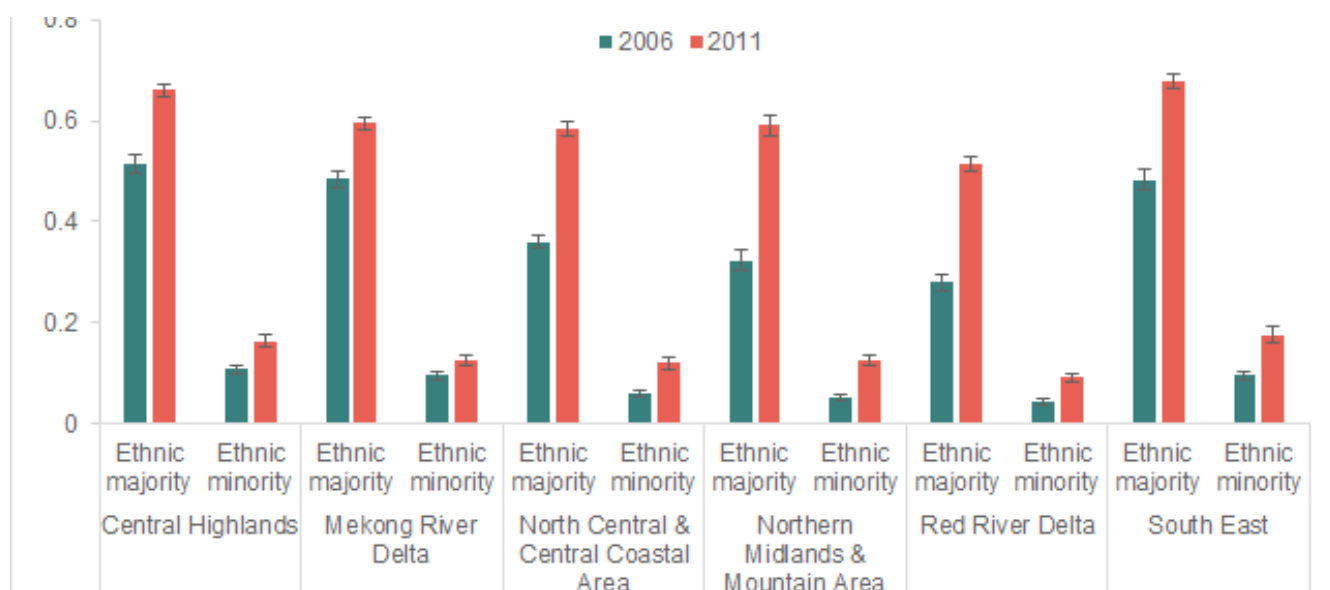
**Figure 16: Likelihood of using clean fuel by ethnicity, 2006 and 2011 (%)**



in relative terms: ethnic minorities were 2.1 times as likely as their majority counterparts to be education poor in 2006, which declined to 1.7 times by 2011.

- The ethnic gap in terms of child mortality and immunisation coverage remained unchanged in absolute terms. In fact, in relative terms the gap between ethnic minorities and the Kinh and Hoa majority widened on the former and remained constant in the latter.
- Vietnam has made significant progress in expanding access to primary education. By 2011, only about 2% of the population between 20 and 25 years of age had been to school for less than two years (extreme education poverty), and a further 2% had two or more but less than four years of education (moderate education poverty). However, this low aggregate rate of deprivation conceals variations across groups (Table 12). In 2011, ethnic minority groups experienced twice the rate of education poverty (less than four years of schooling) as the majority group for both males and females – although there were improvements for both groups. Given low levels of deprivation in education, we combine both types of education poverty in the probability analysis. Even after controlling for other factors, the probability of a person having less than four years of schooling differs

**Figure 17: Likelihood of using clean fuel, by ethnicity and region, 2006 and 2011 (%)**



**Table 12: Education poverty, by ethnicity and gender, 2006 and 2011 (%)**

	Year	Ethnic majority			Ethnic minority		
		Share	95% Confidence interval		Share	95% Confidence interval	
Moderate education poverty	2006	1.7	LB 1.1	UB 2.5	4.6	LB 3.1	UB 6.9
	2011	3.1	LB 2.3	UB 4.1	6.2	LB 4.3	UB 8.9
Extreme education poverty	2006	1.9	LB 1.4	UB 2.5	2.5	LB 1.3	UB 4.5
	2011	0.8	LB 0.4	UB 1.4	1.8	LB 0.9	UB 3.6

Note: LB=lower bound, and UB=upper bound of the estimate

based on their ethnicity. For the ethnic majority group, it halved between 2006 and 2011 – from 8% to 4%. Ethnic minorities made progressed much faster, almost catching up with the majority, as the probability of having less than four years of schooling declined from 17% to 6% over the same period (Figure 18). As these rates approach zero, the absolute difference has declined. However, the relative difference has also declined over the years: ethnic minorities were 2.1 times as likely as their majority counterparts to be education poor in 2006, which declined to 1.7 times by 2011.

As with access to education, improvements were also recorded in health and access to health care services between 2006 and 2011. Yet disparities exist. Poor infrastructure and basic amenities in areas where ethnic minority groups live as well as the perception of poor quality care often prevents women from ethnic minority groups from using health facilities (Save the Children, 2015). In addition, minority groups are often less aware of government health programmes, which is exacerbated by discriminatory attitudes and language barriers (ibid.).

On child health outcomes, although the MICS does not contain information on child mortality directly, it asks households if they have a child who was born alive but

died later,<sup>12</sup> which is used here as a modified measure of child mortality to indicate gaps in child health.

On average, in 2006, 6% of women aged between 15 and 49 years who had ever given birth reported experiencing the death of a child; this share had declined to 5% in 2011. This share was higher in rural areas, at 7% in 2006 and 5% in 2011, compared with urban areas, where the shares were 3% in both years.

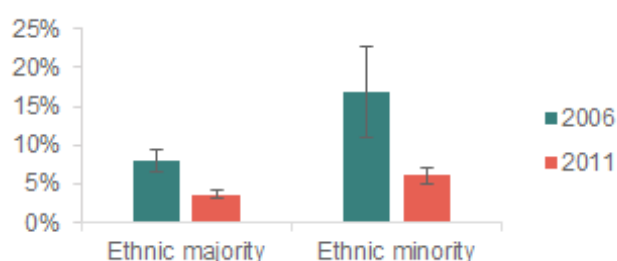
Child mortality was highest in the Red River Delta, the Northern Midlands and Mountains, North Central and Central Coastal Area, and the Central Highlands in 2006 (Table 13). There was a significant decline in the Red River Delta, where the mortality rate more than halved.

The probability<sup>13</sup> of a household having a child who died was higher for minority groups than the ethnic majority (Figure 19). The disparity remained constant in absolute terms – with the probability of having a child death in the household 3 percentage points higher for ethnic minorities than for the majority. However, in relative terms, inequality increased slightly: for ethnic minorities, probability of child death was 1.5 times that of the ethnic majority in 2006, which increased to 1.8 times in 2011.

This disparity exists in all regions of the country. In absolute terms, the ethnic gap remained roughly unchanged in all regions (Figure 20). However, there were differences in relative gaps, which increased in most parts of the country. The likelihood of experiencing the death of a child among ethnic minority households ranged between 1.7 and 1.8 times that for the ethnic majority in 2006, and this number increased to about 2.2 times in 2011 in most regions.

Similar inequalities are reflected in access to health care facilities – measured here in terms of immunisation against measles for children under five years and women obtaining antenatal care from a trained person.

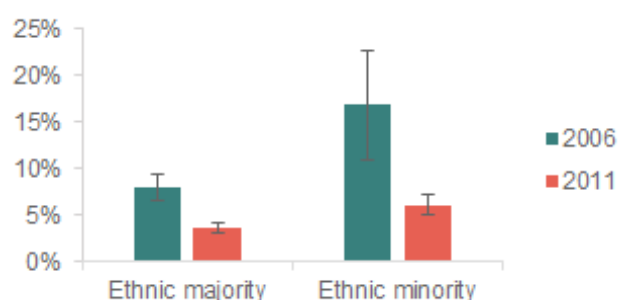
In 2006, 86% of children under five years were immunised against measles; this share had increased to

**Figure 18: Likelihood of having less than four years of schooling, by ethnicity, 2006 and 2011 (%)**

12 Although this measure does not, in reality, only capture children (i.e. the child could have died beyond the age of five) or cause of death (e.g. the death could be caused by non-health factors, such as an accident).

13 In addition to the other covariates, the analysis of child mortality also controls for the age of the mother.

**Figure 19: Likelihood of child death, by ethnicity, 2006 and 2011 (%)**



90% in 2011. In 2006, coverage was 85% in rural areas compared with 92% in urban areas, although the disparity was eliminated in 2011, when coverage was about 90% in both. Expectedly, considerable ethnic disparities exist: coverage for children from minority ethnic groups (about 84%) was 7 percentage points less than for the majority (91%) in 2011. This was an improvement over 2006, when coverage for minorities was 76% and that for the majority was 89%, a 13 percentage point difference.

Yet, when controlling for other characteristics, the gap is unchanged. The likelihood that a child was immunised was

91% for the ethnic majority and 84% for ethnic minorities in 2011 (Figure 21). In absolute terms, the inequality between the ethnic groups remained unchanged – with an approximately 6 percentage point gap in probability in both years. The relative gaps was also fairly stable, as children from ethnic majority households had 1.1 times the chance of being vaccinated as minorities in both 2006 and 2011. Basic maternal health care coverage is nearly universal in Vietnam. Among the women who had given birth in the previous two years, nearly all in urban areas had received antenatal care from a doctor, nurse or trained midwife. Coverage was markedly lower among ethnic minorities in rural areas (Figure 22). The gap between minorities in urban and rural areas declined from 35 percentage points in 2006 to 22 percentage points in 2011 – but it remained large.

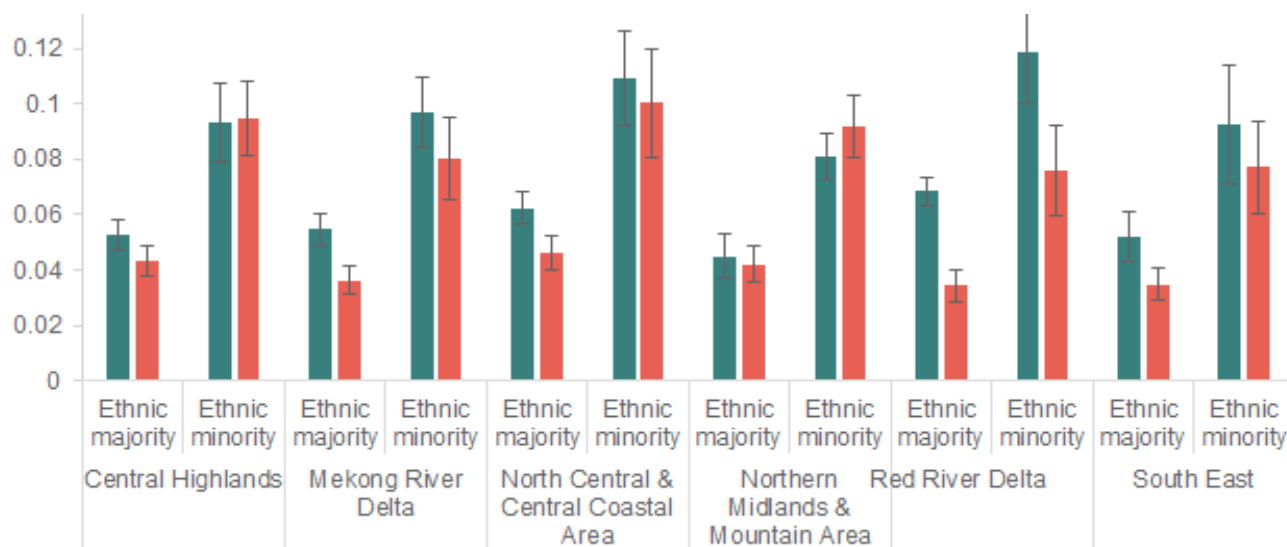
The probability of having antenatal care from a skilled professional increased from 85% in 2006 to 89% in 2011 for ethnic minorities. In comparison, the probability was roughly constant at about 96% for ethnic majority women. Therefore, while there was a decline in absolute terms – indicating a shift towards universal coverage – the gap remained unchanged in relative terms.

**Table 13: Child deaths by region, 2006 and 2011 (%)**

Year		2006	2011	Change
Red River Delta	Share	7	3.2	-3.8
	95% Confidence interval	LB 5.5	LB 2.2	
		UB 8.6	UB 4.3	
Northern Midlands and Mountains	Share	7	6.8	-0.1
	95% Confidence interval	LB 5.4	LB 5.2	
		UB 8.5	UB 8.4	
North Central and Central Coastal	Share	7.4	5.4	-2
	95% Confidence interval	LB 5.9	LB 3.8	
		UB 8.9	UB 7	
Central Highlands	Share	6.4	5.7	-0.7
	95% Confidence interval	LB 5.2	LB 4.5	
		UB 7.6	UB 6.9	
South- East	Share	3.8	2.7	-1.1
	95% Confidence interval	LB 2.2	LB 1.9	
		UB 5.5	UB 3.6	
Mekong River Delta	Share	5.8	4.3	-1.4
	95% Confidence interval	LB 4.5	LB 3.2	
		UB 7.1	UB 5.4	

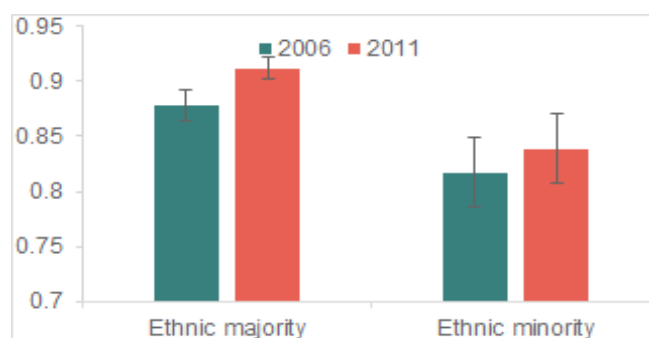
Note: LB=lower bound, and UB=upper bound of the estimate

**Figure 20: Likelihood of child death, by region and ethnicity, 2006 and 2011 (%)**

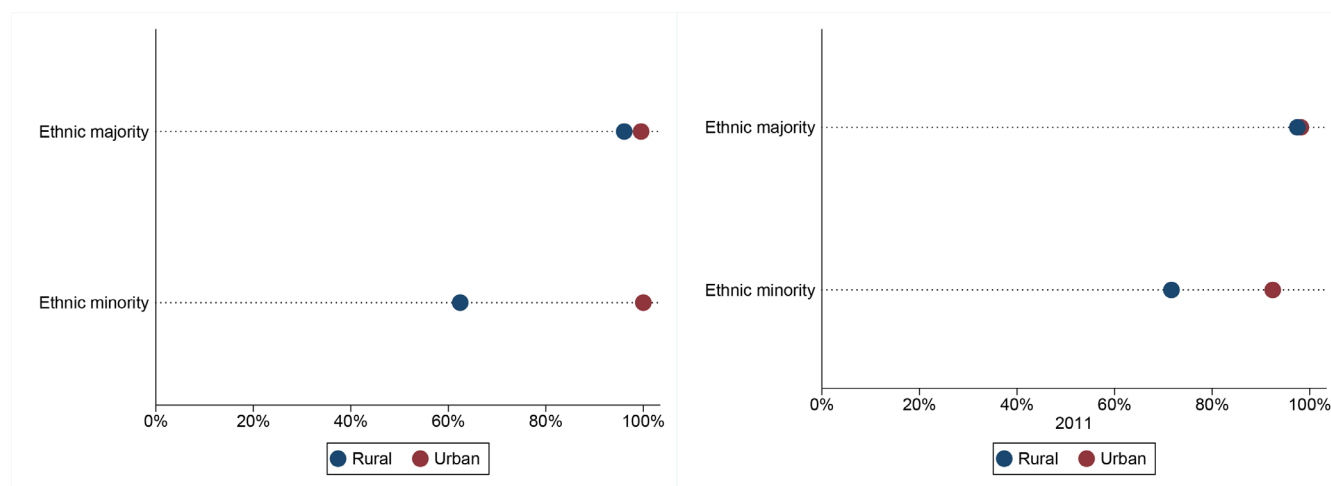


Poverty and disparities in wealth amplify ethnic inequalities in access to maternal health care (Figure 23). Although the ethnic gap in the likelihood of accessing antenatal care was eliminated for those in the top wealth quintile (11 percentage points in 2006, declining to 4 percentage points in 2011), inequality remains large for poorer groups. For instance, among households in the bottom quintile, the disparity between the ethnic majority and minority groups was 34 percentage points in 2006, which declined to 24 percentage points in 2011.

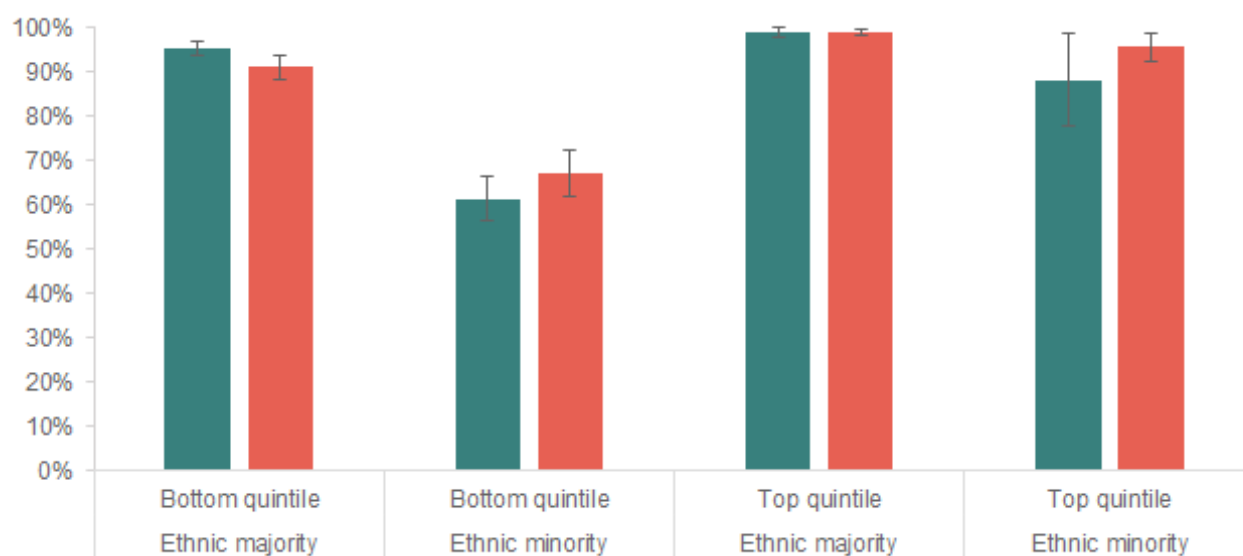
**Figure 21: Likelihood of child receiving measles vaccine, by ethnicity, 2006 and 2011 (%)**



**Figure 22: Antenatal care coverage, by ethnicity and location, 2006 and 2011**



**Figure 23: Likelihood of receiving antenatal care, by ethnicity and wealth quintile, 2006 and 2011 (%)**



# Mind the gap: discussion of Vietnam results

The analysis in the previous section using Vietnam's MICS highlights the persistence of a high level of inequality and the social exclusion of ethnic minorities in Vietnam.

Despite overall improvements, both absolute and relative disparities between ethnic minorities and the majority Kinh (and Hoa) remain high in Vietnam. Further, in some instances – for instance relative poverty, access to clean fuel and child deaths – the level of inequality has increased as the majority group has progressed faster than the minority, particularly in rural areas and less developed regions.

The inequalities ethnic minorities experience are overlapping and mutually enforcing. They often start in early life with poor health and nutrition, and continue and intensify in later life (expert interview – Bob Baulch, 10 August 2015). The existence of persisting gaps between the majority (Kinh and Hoa) and minority groups is echoed in the wider literature, which discusses some of the factors that have impeded the reduction of disparities.

Language is a barrier, as ethnic minorities' inability to speak Vietnamese has been identified as an impediment to economic integration and accessing justice under land laws and other policies. Rural ethnic minority households

with poor Vietnamese language ability have been found to be 1.9 times more likely to be poor than other minority households, and 7.9 times more likely to be poor than Kinh and Hoa living in rural areas (Baulch et al., 2010). Lack of Vietnamese language skills have been found to profoundly impact ethnic minorities – in particular ethnic minority women – in terms of accessing employment (Oxfam and Action Aid, 2008), government services, engaging in markets (World Bank, 2009) and receiving social transfers. Another factor is disparities in landholdings. Ethnic minorities in Vietnam heavily depend on farming, and, while they have larger landholdings than Kinh households, they tend to have less productive (irrigated) cropland. Instead, they often have tracts of forest land or unirrigated cropland that yields just one crop a year (Kabeer, 2010). In comparison, the majority ethnic group are more likely to own irrigated and perennial cropland with higher output.

In addition, geographical location seems to reinforce ethnic inequalities in Vietnam. Ethnic minorities must travel further to get to a school or marketplace, which partly explains why education and health outcomes remain lower

**Table 14: Evolution of gaps, 2006-2011**

Indicator	Absolute gap (percentage points)			Relative gap (ratio)		
	Direction of change	2006	2011	Direction of change	2006	2011
Poverty	↑	32	37	↑	3.2	3.5
Household services						
Water	↔	8	8	↔	1.1	1.1
Sanitation	↓	15	12	↓	1.3	1.2
Clean fuel	↑	0	6	↑	1	1.1
Education	↓	9	2	↓	2.1	1.7
Health						
Child mortality	↔	3	3	↑	1.5	1.8
Vaccine	↔	6	6	↔	1.1	1.1
Antenatal care	↓	11	8	↔	1.1	1.1

### Box 5: Affirmative action and indigenous rights in Nepal

Nepal is characterised by high caste and ethnic inequalities with a marked geographic dimension, with the contiguous Mid-Western and Far-Western Hills and Mountains and the Eastern and Central Terai lagging (UNDP, 2014). Of the four major caste and ethnic groups, Dalits and Muslims have traditionally experienced higher levels of poverty and lower levels of human development. However, there are signs inequality – in both income and other dimensions of wellbeing – may be declining (Paz Arauco et al., 2014; UNDP, 2104). Significant advances have also been realised in political representation and participation.

Following the signing of the Comprehensive Peace Agreement in 2006, Nepal introduced an Interim Constitution to manage the Nepali constitutional transformation process from a monarchy to a federal republic. This introduced measures to improve social justice and institutionalised proportional inclusion of Madhesi, Dalits, Janajatis and women in all organs of the state and established the fundamental right against racial discrimination and untouchability (Paz Arauco et al., 2014; Thapa, 2013).

The principle of proportional representation was first applied for the election of the Constituent Assembly: political parties were required to include in their candidate lists Madhesi (31%), Dalits (13%), oppressed and indigenous tribes (38%) and backward regions (4%). Women had to constitute 50% of each of these groups and at least one third of the overall number of candidates nominated (Paz Arauco et al., 2014; Thapa, 2013). The proportional system has managed to significantly increase the presence of women and Dalits in the parliament, but political representation of ethnic groups is still unequal, especially at the leadership level.

Following the Interim Constitution, a Three-Year Interim Plan outlined measures to operationalise the Constitution. Positive discrimination was put in practice by reserving 45% of seats in the civil service, police and army for marginalised groups. Between 2007/08 and 2011/12, although the 45% target was not achieved, the presence of new staff from special groups increased from 22% to 33% (Panth, 2013).

among ethnic minority groups. As the analysis describes, ethnic disadvantage varies by location, with minorities living in the lowlands faring better than those in the highlands. In particular, ethnic minority groups in the Northern Mountains, the Central Highlands and the South and North Central Coasts remain in extreme poverty (Kabeer, 2010).

The government, recognising the extent of ethnic and regional disparity, has over time introduced several policies intended to benefit these groups. These have targeted certain regions where minority ethnic groups live, but they have often met with challenges that have limited their effectiveness. Concerns have been expressed that these numerous programmes may be overlapping, and their implementation may not be adequately supervised to benefit the most marginalised groups (World Bank, 2009). For instance, with geographically targeted policies, facilities such as schools are often located in the commune centre, where ethnic Kinh in-migrants are more likely to benefit (expert interview - Keetie Roelan, 5 August 2015). Similarly, government policies to provide free irrigation in rural areas have widened the ethnic gap (Baulch et al., 2010). This is because ethnic minorities typically farm in upland fields, where it is difficult to provide irrigation, and their needs have remained unmet; on the other hand, the policy has benefited farmers from the Kinh ethnic majority, who usually farm in lower fields and in the deltas. This suggests policies designed to address regional inequalities – which are indeed significant – are insufficient without tackling other sources of inequality, such as those based on ethnic identity. Various countries have aimed to tackle these issues using affirmative action policies (e.g. Box 5 for Nepal) or through a combination of affirmative action and regional development plans (e.g. Box 6 for China).

Ethnic minorities in Vietnam have also been known to have a lower level of geographical mobility within the country compared with the Kinh. As discussed earlier, government migration programmes have encouraged the Kinh to move to the highlands. While much migration in more recent years has been spontaneous and not directed by the government, poverty in urban areas is heavily concentrated among recent migrants, particularly those without permits to live in the cities, who are excluded from accessing certain benefits and public services (ADB et al., 2004).

Finally, while regional differences reflect ethnic disparities, location does not seem to fully explain the differences in outcomes between ethnic groups. In the analysis above, even after controlling for subnational region, wide ethnic gaps prevailed – in other words, even within the less developed regions, the Kinh and Hoa majority were better off than the minority ethnic groups. Differences in characteristics accounted for just between one-third and a half of the total ethnic gap in per capita expenditure, while more than half of the gap is attributed to differences in returns to characteristics (Baulch et al., 2010). Lower returns for ethnic minority groups than for the Kinh-Hoa may owe to unobserved factors (e.g. differences in quality of education) or unequal treatment, including discrimination. For instance, migrants from ethnic minorities earn half as much as those from the Kinh majority, and are far less likely to have a work contract (Kabeer, 2010). Finally, while people from ethnic minorities are able to escape poverty, this often happens in such a way that they are co-opted into the system and do not retain their cultural identities (McElwee, 2004).

### Box 6: Two-pronged approach to reducing ethnic and regional inequality in China

Around 8.5% of China's population belong to 55 ethnic minority groups concentrated in the Western and border regions (Bhalla and Luo, 2013). In 2009, over 54% of those classified as poor lived in ethnic minority areas (Chaudry, 2013). Ethnic minorities are disproportionately poor: in rural areas, ethnic minorities are 1.5 to 2 times more likely to be poor than their Han (majority) counterpart (Hannum and Wang, 2012). Spatial disadvantages and specific discriminations compound the higher poverty experienced by ethnic minorities. China has pursued a twofold approach to reduce ethnic inequality through (i) regional targeting of assistance and investments, and (ii) affirmative action measures (Zang, 2015).

Regional targeting has been a key feature of China's poverty alleviation strategy: government poverty reduction funds are targeted at defined regions, with counties as the unit for state poverty reduction investments (Wang, 2004). About half of the 592 counties officially designated as key recipients of state financial aid are in minority areas (Zang, 2015). The central government has also arranged special funds such as the Ethnic Minority Development Fund to address specific problems facing minority areas. Additionally, economic benefits have accrued to minority regions through tax exemptions (on agriculture, manufacturing, and commerce) and discounted interest on loans for the construction of trade networks (*ibid.*).

A second strategy has focused on affirmative action programmes to improve opportunities for minority groups in both Han- and minority- regions. These policies include easier access to education, employment and political office exemptions from family planning, and special tax breaks (Zang, 2015). Since the late 1970s, special subsidies were provided to minority students, twelve national ethnic minority educational institutes and one national ethnic minority university were established, and affirmative action policies for matriculation into colleges and universities were introduced (Hannum and Wang, 2012; Chaudry, 2013).

The two strategies have aided economic development and improvements in living conditions in the Western regions. The GDP of minority areas grew by about 10% annually from 1994 to 2003; and per capita net income of rural residents grew 2.3 times (Zang, 2015). In turn, the number of impoverished ethnic minority people declined from 40 million to 7.7 million between 1985 and 2008 (Information Office of the State Council of the People's Republic of China, 2009). In education, by 2009, 686 out of 699 counties in minority regions achieved the national goal of 9-years of compulsory education.

Despite absolute improvements, the relative disadvantage experienced by ethnic minorities has increased in recent last decades, mainly due to faster economic growth in coastal areas. Between 1989 and 2004, coastal incomes tripled while incomes in hinterland provinces only doubled (Goh et al, 2009). Mining and ethnic tourism are the main sources of growth, but have benefitted mainly the Han majority and central government. Ethnic minorities continue to face difficult access to social services, especially employment, pension and health insurance (Hannum and Wang, 2012). The equal opportunity policy has had mixed results; ethnic minorities have lower access to wage employment and earn less when employed (Chaudry, 2013), due to location, discrimination in the labour market, and as affirmative action legislation only applies to the public sector (whose importance has been declining).

The Chinese experience shows that ethnic groups can achieve substantial absolute improvements in human development while also being left behind in relative terms. It suggests that addressing the disadvantages created by entrenched ethnic and regional inequalities requires an approach that combines regional targeting (to create an environment that generates opportunities for all) with targeting of groups and individuals (to ensure their specific characteristics do not prevent them from capturing opportunities). Such a two pronged approach has had important positive effects in China though it has not been sufficient to reduce regional inequality.

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# Conclusion

An important lesson from the MDGs has been that averages and aggregate progress conceal differences within and across countries, which are often significant. The SDG agreement has placed a strong emphasis on advancing the most marginalised groups, or the LNOB principle. The LNOB principle means ensuring every individual achieves the full package of rights and opportunities. This highlights the need to identify and reduce inequalities both across countries and within them.

Yet, while the SDGs and the LNOB principle will be agreed at the global level, their success will depend on effective implementation at the national and subnational level. Countries across Asia, and indeed globally, have been grappling with group-based inequalities and policies in the

region to date and have had varying levels of success. As countries around the world reflect on how to apply this principle, the experiences of other countries with similar group-based inequalities can point out some of the policies possible and the barriers that need to be addressed to effectively reach the most marginalised people.

In Asia, it is encouraging in that some countries have realised important improvements for marginalised groups – in particular with a decline in gender-based inequalities in Bangladesh – but deep inequalities persist. In Vietnam, ethnic minorities in less developed regions continue to be disadvantaged and have seen few improvements. Going forward, such inequalities need to be highlighted and tackled as central to the global development agenda.

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## Appendix 1: Methodological note

The quantitative approach is based on logit regressions. Outcomes are presented in categories, often binary (yes/no). A base model regresses the outcome of interest (e.g. access to electricity) on groups. In Bangladesh, the covariates used are place of residence, subnational region, religion, gender of household head, age category of household head and expenditure quintile. In addition, disability status was included in the 2010 analysis. In Vietnam, the groups used were ethnicity, place of residence, subnational region, religion and wealth quintile.

When the outcomes are at an individual rather than a household level, as in the case of years of education, a fifth group, gender, is added and the regressions and a control for the age of the individual is also included. An interaction model, with an interaction of two of the groups, is added to the regression. The results discussions are based on these models.

The results are reported in terms of predicted probabilities (marginal effects) for the different group categories and selected group intersections. These probabilities are computed as Average Adjusted Predictions and as Adjusted Predictions at Representative values

(as opposed to Adjusted Predictions at the Means).

This is because the means of categories rarely have a straightforward interpretation (e.g. an ‘average person’ 49% female or 30% urban). For example, to estimate the average adjusted prediction of gender, the person is for a moment treated as though they were female, regardless of the person’s actual gender, leaving all other variable values at their actual values. The probability of, say, having being literate is calculated for the person and then averaged across all individuals.

The same is repeated for all the categories and groups and the difference between a base category and each of the others is presented for comparison (e.g., in the case of ethnicity, the base category is the ethnic majority, thus the results are presented as the difference in probability between belonging to the majority and the minority ethnic groups).

Since these averages can still obscure differences across cases, and the actual effect of ethnicity also varies with other characteristics of a person such as where they live, or their gender, adjusted predictions at representative values are estimated for selected groups and intersections of interest.

## Appendix 2: List of indicators

The indicators were selected to reflect a wide variety of outcomes and cover the indicators covered in the MDGs and likely to feature in the SDGs to the extent possible. Data availability in the household surveys (HIES and MICS) guided indicator selection. The tables below explain the indicators used in the analysis in the paper.

### Bangladesh

Indicator	Measurement
Monetary poverty	Share of people in households where the per capita expenditure is less than the national upper poverty line for the location they reside in.
Access to clean water	Households where the main source of drinking water was piped water or a tubewell.
Access to sanitation	Households that have a sanitary latrine or a pacca (concrete) water seal or pit latrine.
Access to electricity	Households that have an electricity connection.
Mobile phone ownership	Households that report owning a mobile phone.
Literacy	Individuals that can read a letter.
Measles vaccine	Children under 5 years of age that have received the measles vaccine.
Skilled birth attendant	Women of reproductive age (15 to 44 years), irrespective of the year in which they gave birth, that gave birth in the presence of a doctor, nurse or trained mid-wife.

### Vietnam

Indicator	Measurement
Monetary poverty	Share of households in the bottom wealth quintile.
Access to clean water	Households with connection to piped water into the dwelling, compound or yard, to neighbour, or using a public tap or standpipe, protected well, protected spring, rainwater collection, or bottled water.
Access to sanitation	Households using the following sanitation types: flush to pipe sewer system, septic tank, or pit, or unknown place; ventilated, improved pit latrine, pit latrine with slab; or composting toilet.
Access to electricity	Households that report having access to electricity.
Access to clean fuel	Households using electricity, liquefied petroleum gas, natural gas, biogas, or kerosene for cooking.
Education poverty	Individuals between 20 and 25 years old with less than 2 (extreme) or 4 (moderate) completed years of education.
Child death	Women of reproductive age that responded that they have had a child that was born alive but died later.
Measles vaccine	Children under 5 years of age that received the measles vaccine.
Antenatal care	Women of reproductive age that gave birth in the past two years that received antenatal care from a doctor, nurse, midwife or elementary nurse/midwife.

## Appendix 3: Upper poverty line in Bangladesh, 2005 and 2010 (local currency: taka)

Region	Sector	2005	2010
Barisal	Rural	926	1485
	Municipal	951	1963
Chittagong	Rural	951	1687
	Municipal	963	1825
	SMA	1171	1876
Dhaka	Rural	842	1497
	Municipal	890	1793
	SMA	1018	2038
Khulna	Rural	743	1435
	Municipal	825	1680
	SMA	938	1639
Rajshahi	Rural	766	1487
	Municipal	857	1585
	SMA	857	1556
Sylhet	Rural	822	1311
	Municipal	1020	1558

Source: World Bank (2013)



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