Policy Paper 5

Growth, Wealth and Inequality:
Evidence from Young Lives

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Young Lives
An International Study of Childhood Poverty

Acknowledgements

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Key findings

This paper analyses consumption and wealth levels using the Young Lives data. The purpose is to describe the context in which children are growing up, and therefore also to understand some of the opportunities children and young people will have as they grow older. The national pictures show economic growth and absolute poverty reduction after 2000 but a more mixed picture of national income inequality levels rising in Vietnam and India, and falling somewhat in Peru and Ethiopia. Analysis of Young Lives data shows that these GDP increases are associated with wealth and consumption growth in the Young Lives sample. Disaggregating the change in a number of different ways reveals that, although consumption and wealth levels tend to be rising for different groups of children, those with already higher levels of consumption have tended to gain the most. We add to this with exploratory analysis of specific geographic communities, demonstrating how they have changed.

1. In line with many developing countries Young Lives countries have seen considerable economic growth in recent years, especially after 2000. Nationally representative data suggest that over this period poverty has fallen, while income inequality shows a different picture, rising in India and Vietnam, but falling somewhat in Peru (where it was rising before 2000) and Ethiopia.

2. Growth is critical to reducing poverty but the relationship is not straightforward. The form or 'quality' of growth is also important. Countries differ in how their national income levels convert into poverty reduction or child well-being indicators. India has more than three times the GNI per capita as Ethiopia but roughly the same MDG poverty level. More unequal countries do less well at poverty reduction for a given national income level – Vietnam has a similar poverty level to Peru on a third of the GNI per capita.

3. Data from the Young Lives survey show rising wealth levels between 2002 and 2009, measured using an index made up of housing quality, services and consumer durables. Wealth levels are much lower for more disadvantaged groups (measured using levels of maternal education, markers of ethnicity or caste and those in rural areas) but have typically increased the fastest.

4. Analysis using consumption data within country samples for 2006 and 2009 shows similar big differences between groups. In Peru in 2009, children in households with mothers who were educated beyond secondary education had 2.9 times the consumption level of those children in households where the mother had not been to school. Although in percentage terms consumption is rising for more disadvantaged groups, who start at a much lower consumption level, the largest cash gains tend to be by initially more affluent groups. Between 2006 and 2009, the cash gain for the top decile in Andhra Pradesh was 4.4 times that experienced by the poorest decile.

5. Analysis by specific geographic communities ('sites') demonstrates that communities are developing in different ways. No site saw its average wealth index level fall, but there are examples of sites which did not move far on the wealth index, and some saw average consumption fall.

6. Site-level analysis shows that, although average consumption at a sample level is much greater in urban than in rural areas, in Ethiopia and in Andhra Pradesh there are some sites where average consumption levels in some rural sites are higher than in urban ones. Social policies need to deal with conditions in towns as well as in the countryside; area-based policies aiming to reach poor people therefore need to consider a range of community circumstances, not just rurality.

7. Analysis shows that as well as differences between sites, there are big differences within them. In Ethiopia in 2009 the top tenth of households ranked by consumption level reported 2–5.1 times (depending on the site) the consumption of the poorest decile. Overall the ratios between sites have reduced, but the absolute gaps have increased. These differences within sites are greater than the differences between sites. While in general between 2006 and 2009 consumption has increased, the range of consumption levels within communities appears also to have increased.

1. Introduction

Those who readily provide general solutions to specific problems, or those who constantly repeat standard recommendations for achieving the MDGs, frequently fail to understand that the end of human poverty will not result from more wealth or aid, but from more equity and justice (Vandemoortele 2011: 3).

In many developing countries economic growth continues apace. National aspirations around sustained high levels of GDP increase do not seem to have been dented long term by a global economic crisis which looks set to depress growth rates in OECD countries for years to come. This paper uses exploratory analysis to consider how this economic growth is affecting the experiences of Young Lives children in Ethiopia, India (the state of Andhra Pradesh), Peru and Vietnam. We consider the situation of several different groups of children in order to build an understanding of changes within the samples (by decile, maternal education levels; indicators of ethnicity or caste) and location (urban/rural and by geographic area) to present empirical evidence on trends between 2002 and 2009.

The purpose of this paper is partly to look at the context of growth occurring in Young Lives countries and communities. This paper also seeks not only to look at changes between groups but also to begin to look at data derived at a community level, and so to consider the context in which children are growing up. Young Lives is a good data source to understand processes of change, by linking data on child outcomes with earlier circumstances. However, since the source is not nationally representative the Young Lives data are discussed after analysing representative national data. To avoid reliance on a single measure, we look at both consumption change and an indication of wealth levels, as derived from housing conditions, service access and consumer durables. This paper accompanies a series of detailed country reports which analyse the first three rounds of data collected in each country (Woldehanna et al. 2011; Galab et al. 2011; Escobal et al. 2011; Le Thuc et al. 2011), and two policy papers which consider child-level evidence of the impact of poverty and inequalities on children (Pells 2011a; Pells 2011b). Here we draw on the analysis from these reports, and elsewhere, to consider general patterns and trends observed in consumption growth, wealth and indicators of within-country inequality.

The analysis here demonstrates rapid change. At a national level Young Lives countries have experienced significant economic growth and, although it is clear that much ongoing vulnerability occurs, the proportion of populations living in absolute poverty has fallen. Inequality patterns differ between the countries, with Peru showing higher income inequality but with some reductions after 2000. India and Vietnam both saw inequality increase between 1990 and 2008. Only in Ethiopia did inequality appear to fall over this long period; even so, there are considerable concerns over urban inequality (see Woldehanna et al, 2011).

Consumption increases are often highest for those groups who were least poor in 2006, demonstrating growing gaps. Within this broad pattern of GDP increase, therefore, there is a question over the quality of growth and the extent to which increased GDP improves human development – in this case, specifically child well-being. Understanding issues of how economic change affects well-being requires a focus on both absolute consumption level and inequalities between groups or areas. In many countries poverty – in this case inferring basic living standards available to households – is the overwhelming consideration. If children lack the material resources to allow them to survive, this then necessarily must be the key policy focus. It is tempting, therefore, for policy in lower-income countries to focus on fast GDP growth and leave considerations of inequalities to richer countries, or to a later stage of economic development. Here, however, we argue that poverty and inequality are not either/or concerns – both are important in understanding how social forces shape children's development (see also Pells 2011a, which examines how poverty and inequalities are affecting Young Lives children). The evidence of this policy paper suggests that, despite fast national economic change, the measured improvements for children have been slower and, despite typically rising consumption and wealth levels, gaps have often increased. This is a policy concern, given that larger gaps between groups are likely to make it harder to increase overall well-being.

2. About Young Lives and use of the data

Young Lives is an innovative and long-term study of childhood poverty being carried out in Ethiopia, the Indian state of Andhra Pradesh state, Peru and Vietnam. The main goals are to provide good-quality quantitative and qualitative information about the lives of children living in poverty; trace linkages between key policy changes and children's welfare; and promote pro-poor and pro-child policies that work. Young Lives uses a range of data collection methods to trace the lives and fortunes of 12,000 children living in poverty. In each of the study countries, 2,000 children aged between 6 and 18 months in 2002 and 1,000 children aged 7 to 8 years in 2002, and their households and communities, are surveyed every three to four years over a period of 15 years. These surveys are complemented by qualitative sub-studies that focus on a selection of Young Lives child poverty themes, including children's time use, their perceptions of well-being, and their access to educational, health and other key services at transitional periods in their lives.

The purpose of the study is to develop understandings of childhood poverty in different developing country contexts. Data are collected in a series of sentinel site locations, selected to be broadly representative of a range of different circumstances within each country. Household, child and community survey data were collected in 2002, 2006 and 2009, together with qualitative interviews on a subset of children, and a school-based component providing

data on Young Lives children in their school settings. More details about the study, the sample structure and about organisations involved are available on the study website.[1]

There are a couple of qualifications about the study relevant to this analysis:

- Young Lives is a 'pro-poor' study and is not necessarily nationally representative. Given that Young Lives is a pro-poor sample inequality levels are likely to be lower than experienced in the country as a whole, but analysis gives a sense of change within the samples. The sample construction is slightly different in each country; details are available in a series of technical notes (Nguyen 2008; Escobal and Flores 2008; Kumra 2008; Outes-Leon and Sanchez 2008).

- Because there are differences in the sampling in each of the countries, it is not appropriate to compare levels of wealth or consumption directly between the countries (nationally representative data in Section 4 provides a more appropriate data source for this), but rather the focus is on whether the direction of patterns and trends is similar.

- These data comprise a panel of two cohorts of children, and this analysis pools both cohorts. Because the panel study is following a specific group of children as they grow up, it captures both the influence of societal change and also life-course changes within households as families develop.[2]

Two key indicators of material circumstance are used for this analysis: a wealth index and consumption level. Wealth levels are measured using a constructed index scaled between 0 and 1, with a third of this index composed of access to services, consumer durables and housing conditions.[3] Consumption is per capita and calculated by assessing household spending on a range of items, together with food produced and consumed by the household. Figures for 2009 reflect purchasing power based on the 2006 cost of living, so changes observed represent real differences in 'buying power'. Although the wealth and consumption indicators are drawn up using similar principles in each country, they are applied in very different contexts and so the indicators and consumption goods in each country are different.

The wealth index, constructed from a set of items, is available in 2002, 2006 and 2009, and therefore shows absolute change within the index. The consumption measure can capture continuous growth; there is no limit to how far, in principle, it could grow. Care should be taken therefore in interpreting changes because, although the wealth index may demonstrate catch-up over time, with households with lower initial wealth levels gaining most on average, wealthier groups are by definition already the closest to top of the index in 2002. Therefore wealthier groups have less potential to 'improve' their wealth position on this index, but yet may still be experiencing other living standard improvements not captured by the index. The nature of the index therefore increases the chances of measured change appearing pro-poor. Consumption data are not available for 2002, and so the wealth index is used to give a longer time horizon. Wealth and consumption indicators are related concepts, with similar patterns

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1 See www.younglives.org.uk

2 Comparison between the Young Lives cohorts demonstrates this point. Using data from the Andhra Pradesh sample in 2009, the younger cohort reported around 80 per cent of the consumption of the older cohort. (The effect is likely to vary between countries – it is, for example, much smaller in the Peru data.) The probable explanation is that there were more economically active members within the slightly older households (Le Thuc et al. 2011) discuss this effect using Vietnam data).

3 The scale is made up three equally weighted elements, each made up of a subset of items. For example, for Vietnam, housing quality includes a measure of overcrowding, plus wall, roof and floor materials; consumer durables include whether a household owns a radio, refrigerator, bicycle, motorcycle, car, mobile, landline phone, fans and a television; service quality is derived from electricity, piped water, toilet facilities and if the household is able to use gas, electricity, kerosene or paraffin for cooking.

of disadvantage between them. However, the correlation between wealth and consumption is not a very strong one,[4] i.e. not all households with low wealth levels necessarily also have low consumption. The wealth index is more likely to capture a longer-run indicator of material well-being, with consumption more short run, and so more liable to be affected by shocks or adverse events. This also means that short-term increases in consumption levels would take a while to show up as more long-term improvements in material circumstances measured with the wealth index. One other advantage of the wealth index is that it is somewhat more 'outcome' focused, containing indicators of housing quality, service access and what consumer durables households report. Both are used here to maximise the time horizon for study and to avoid reliance on a single measure.

In this paper, after setting a broad context with nationally representative evidence, we make use of Young Lives data to consider change over time within and between particular social groups and areas. The particular benefits of the Young Lives study for this analysis are that we are following the same children and so can consider change over time in the communities where children were initially sampled (although some children have since migrated from these communities). Wealth and consumption data are available – wealth in all rounds, consumption only in the second and third – and are used to look at patterns relating to living standards. Because Young Lives data are collected through sentinel sites, we are also able to do some exploratory analysis of how the communities in which Young Lives children are growing up have changed, using household averages of wealth or consumption level within each area.

3. Setting the scene: linking growth with improved child outcomes

The first Millennium Development Goal is to 'eradicate extreme poverty and hunger' and includes an indicator relating to households below a 'dollar a day'. This poverty indicator[5] on the face of it encourages a focus on absolute material living standards and so a need for inclusive growth without so much concern for inequalities. As one World Bank document (2009) argues:

> By focusing on inequality, the relative definition [of pro-poor growth] could lead to sub-optimal outcomes for both poor and non-poor households. For example, a society attempting to achieve pro-poor growth under the relative definition would favor an outcome characterized by an average income growth of 2 percent where the income of poor households grew by 3 percent over an outcome where average growth was 6 percent, but the incomes of poor households grew by 4 percent.

This argument is appealing in its simple policy implication and its focus on improving consumption levels where these are low. However, it comes with a number of problems. Although the MDG poverty indicator encourages a focus on absolute material standards this is only one of the MDG targets, and transformation in the others requires engaging with equity and power issues, looking not only at the size of GDP but also at distribution (Kabeer 2010;

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4   For example, there are weak positive correlations between wealth index position and consumption level of around 0.40 in the Peru data, 0.34 in Andhra Pradesh, using the 2009 data. Site-level averages in consumption and wealth levels tend to be more closely correlated than at the household level (ranging from 0.60 in Andhra Pradesh , to 0.85 in Peru).

5   reported against the percentage of the population on below $1 a day (using purchasing power parities).

Vandemoortele 2011; Ortiz and Cummins 2011). Additionally, adopting a strategy which focuses only on growth rather than growth *and* distribution implicitly assumes a trade-off between inequality and growth. Work by the World Bank demonstrates that opinion is divided on whether inequality increases or reduces the growth rate, or has no effect (Lopez 2004). The same author notes there is a clearer consensus that high asset inequality impedes the growth rate (*ibid*. 2004). This is worth noting since asset inequality reflects the long-term consequences of income inequality through differential asset accumulation. Third, there is a general pattern that, while growth tends to benefit the poorest households in absolute terms, it benefits those in the most extreme poverty least and the non-poor most (see McKay 2009; analysis in Section 5 comes to the same conclusion). Growth is a necessary part of tackling poverty, but policymakers focused on improving children's outcomes and material living conditions should not ignore disparities. As the Chronic Poverty Research Centre put it with regard to chronically poor households, 'the rate of growth is less important than the form' (Shepherd 2011).

To develop this argument further, indicators of social phenomena are linked with inequalities as well as with absolute consumption level (see Figure 1). Although absolute poverty reduction targets those often most likely to show the worst indicators of stunting, under-nutrition, cognition and many other developmental indicators, moving children over an absolute line, however important, will not eliminate disparities. Although growth itself is a prerequisite to tackling poverty (all the more so in countries where material standards are very low), distribution matters too: 'for a given average income level, a more unequal distribution (so the poor now have less) will tend to be associated with poorer outcomes in non-income dimensions as well' (McKay 2009). There has also been much recent debate around whether or not inequality has separate effects on human development (see Wilkinson and Pickett 2009, who mostly focus on OECD countries, Ortiz and Cummins 2011, who also review developing world data; and the World Bank, which comments on links with conflict in the latest *World Development Report 2011*).

Figure 1. Enrolment, literacy, stunting and underweight by quintile at 8 years old in 2009, Peru
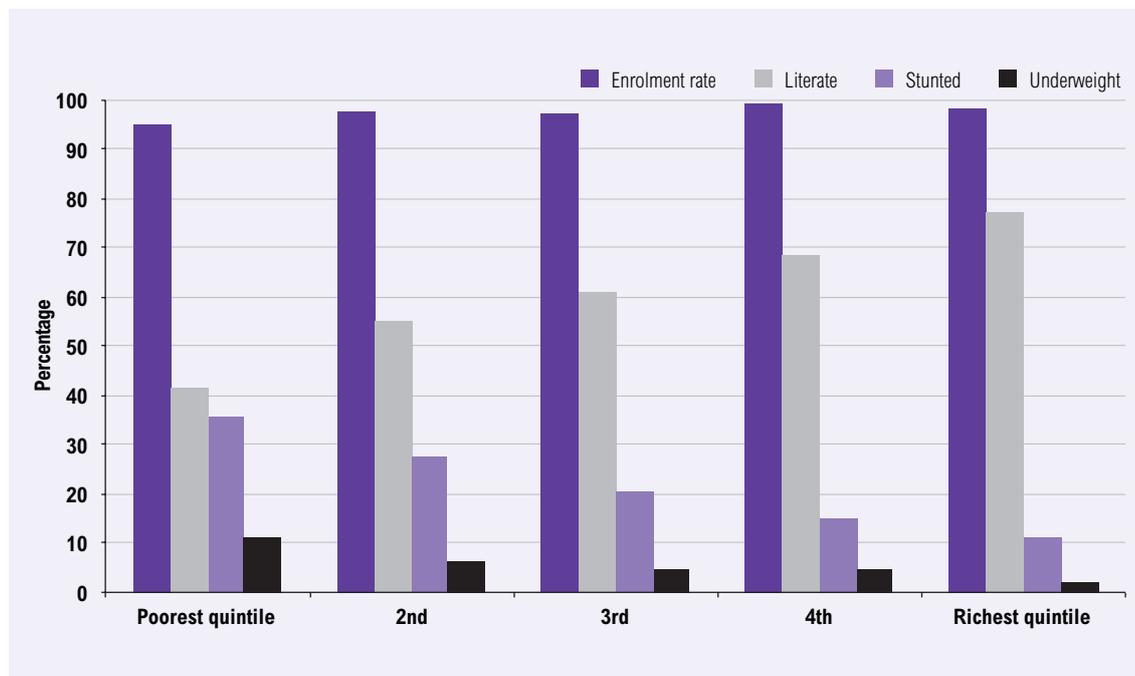
Note: Quintiles reflect fifths of the population derived from ranking households using consumption data. Enrolment reflects enrolment in school. Literacy is defined as the percentage of children able to read and write without difficulties. Stunting is the percentage of children with low height-for-age; underweight is the percentage of children with low weight-for-age (definitions tied to being below two standard deviations of the mean within age- and gender-adjusted reference groups from the World Health Organization).

Over a period of fast economic growth in Young Lives countries since 2000 (see Section 4), to varying degrees wealth and consumption growth have been associated with improvements in other social indicators in the Young Lives data. Early life stunting has been linked with worse cognitive achievement later in life and so may reinforce disadvantage (see Le Thuc 2009; Sanchez 2009). Dercon and Sanchez also find a positive relationship between higher height for age and better self-efficacy, self-esteem and aspirations (forthcoming 2011). However, the rate of economic growth tends to outstrip other improvements by some margin. For example, in Vietnam, a comparison of the Young Lives cohorts when both were aged 8 (in 2002 and 2009) shows stunting rates reduced by eight percentage points to 19.8 per cent over that period (see Le Thuc et al. 2011), while GNI per capita increased by 74.1 per cent (see Figure 2). The same comparison for Andhra Pradesh shows that the stunting rate fell by four percentage points to 29.3 per cent, while Indian GNI per capita increased by 74.3 per cent (*ibid*.). Ensuring that GDP growth is converted to improvements in child well-being is therefore a serious policy challenge and is about the quality of growth, rather than simply its rate.

Growth is likely to improve child well-being most effectively where inequalities between groups are moderate and when effective educational, social protection and other social policies are able to help ensure that all children can share in opportunities created by growth, and thereby also sustain that growth. To deliver gains for children therefore also means that the 'quality' not just the size of growth is important (see Boyden, 2011). In understanding these economic trajectories, the concepts of inclusive and pro-poor growth are used. Inclusive or broad-based growth tends to imply some gain is had by all sectors of society. Pro-poor growth has been defined in two ways, first to suggest that poor people gain in absolute terms (therefore similar to inclusive growth), second that the poorest gain more in relative terms than others in society, so reducing inequalities (see DFID 2004; World Bank 2009). In this paper we use pro-poor growth to imply poorer communities gaining relative to other, richer groups.

Lucas (2005), in a review of evidence on policy choices to encourage pro-poor growth, discusses extending basic education opportunities; improving access to effective primary care and disease prevention; access to land; social protection measures to protect households from crisis; and trade reforms which would support better-quality jobs in sectors dominated by poorer people, particularly agriculture. Analysis by the Chronic Poverty Research Centre (CPRC) focuses on economic measures to reduce chronic poverty (Shepherd 2011). It emphasises job quality as well as quantity, e.g. improving labour standards in agriculture, construction and manufacturing, stressing that, since poorer people's main productive asset is labour, policy and institutional measures which can help in creating more pro-poor trends in the labour market are important. The analysis also implies a need for a focus on young people, including through education and training, to maximise the gain to poorer people from economic change. The CPRC evidence suggests the need for infrastructure improvement in poorer regions but also for measures to tackle discrimination, which is argued to be a break on investment into particular regions. Taxation is seen not as a barrier to growth, but as a way of ensuring, through redistributive measures, that some of the resources created by it can be used to strengthen social integration for the chronically poor such as social protection, effective education and other public services. It should be noted that the number of such social protection schemes has been increasing in lower- and middle-income countries in recent years (see Hanlon et al. 2010).

4. National trends in poverty levels and inequality

This next section explores nationally representative data on economic trends to contextualise Young Lives analysis. Here we consider data on GNI per capita growth; on absolute poverty changes (using MDG definitions) and inequality within countries.

This evidence suggests four key points:

- There are big differences in the GNI per capita between Young Lives countries; Peru has the highest GNI per capita, Ethiopia the lowest. However, there was a broadly consistent pattern of growth after 2000 and before the food, fuel and financial crisis which started in 2008. Even after this period, GNI per capita continued to grow, although the rate was depressed.

- Over the post-1990 period, absolute ('dollar a day') poverty rates have been falling in Young Lives countries. Vietnam has made the most progress, with poverty rates falling from 63.7 per cent in 1993 to 13.1 per cent by 2008, bringing it close to the level in Peru despite having only a third of Peru's GNI per capita. India reports roughly the same percentage of people below this threshold as Ethiopia, despite having a much higher GNI per capita.

- Trends in inequality within Young Lives countries are more complex. The richest fifth accounted for 40–55 per cent of national income depending on the country. There is a consistent pattern of the second richest fifth of households having about a fifth of national income. The remaining 60 per cent of the population have between a quarter (Peru) and two-fifths (Ethiopia) of the national income.

- Recently there have been increases in inequality (measured on the Gini coefficient)[6] in India, Vietnam and Peru. Although Vietnam saw increased inequality, this was below the average rate increase in Asian countries (Vietnam increased by 2.3 points, China by 12.2). Only in Ethiopia was there evidence of falling Gini inequality, with Peru seeing a drop after the millennium.

The rest of this section considers this nationally representative data in further detail, before considering the panel analysis later in the paper.

There has been strong economic growth between 1990 and 2010

Figure 2 shows the GNI per capita in the 1990–2010 period, using figures from the World Bank. The period saw consistent growth in Vietnam. In 1990, Vietnamese GNI per capita was around 1.5 times that of Ethiopia, by 2010 it was nearly three times higher and close to that of India. Peru's GDP per capita is much higher than the other countries, around three times higher than India and Vietnam; nine times higher than Ethiopia.

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6   Scaled between 0 and 100 (also sometimes between 0 and 1). 0 reflects the situation where income is shared equally, 100 the situation where one individual has all of the income. In real-world terms, in 2005 Sweden reported a gini of 23.0, South Africa 67.8 (data is from Ortiz and Cummins 2011)

Figure 2. GNI per capita, 1990-2010
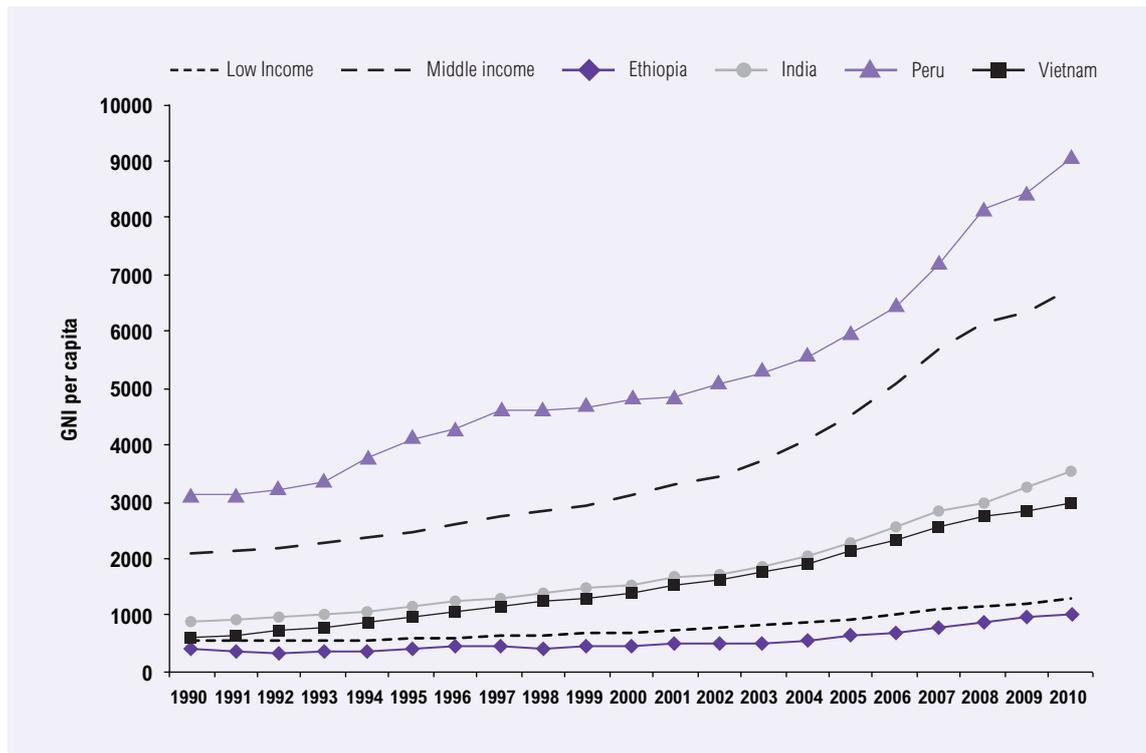
Source: World Bank (http://data.worldbank.org), site checked November 2011. Data are in current international $.

In Young Lives countries absolute poverty levels have generally fallen since 2000

Turning to an indicator of poverty levels, we make use of the UN's database on MDG indicators. Part of the first MDG, to eradicate extreme poverty and hunger, is reported against the percentage of the population on below a dollar a day, calculated using purchasing power parities. As with any of the other indicators described here, there are gaps in the data available, challenges in making it comparable and weaknesses in the indicator itself,[7] but is useful for building up the picture of changes in Young Lives countries.

Figure 3 plots MDG poverty figures in Young Lives countries. Remarkable progress by Vietnam is demonstrated in this chart. Falls in poverty are also evident in both Ethiopia and India. The Peru trend is more complex, with a lower level of poverty on this indicator, but with the rates appearing to rise to 2000, and then to fall subsequently, but not to the 1990 level. The reported rates of poverty in India and Ethiopia were similar in 2005, even though India had around 3.5 times the GNI per capita in that year. By the end of the period Vietnam was approaching the same poverty levels as Peru, despite having only a third of the GNI per capita.

Figure 3 considers progress against this absolute poverty indicator.

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7   $1 a day may help with comparability for global monitoring, but tells us little of how adequate that standard of living is.

Figure 3. Percentage below $1 (in PPP) per day, 1990–2008

Source: UN Statistics; http://unstats.un.org/unsd/mdg/Data.aspx
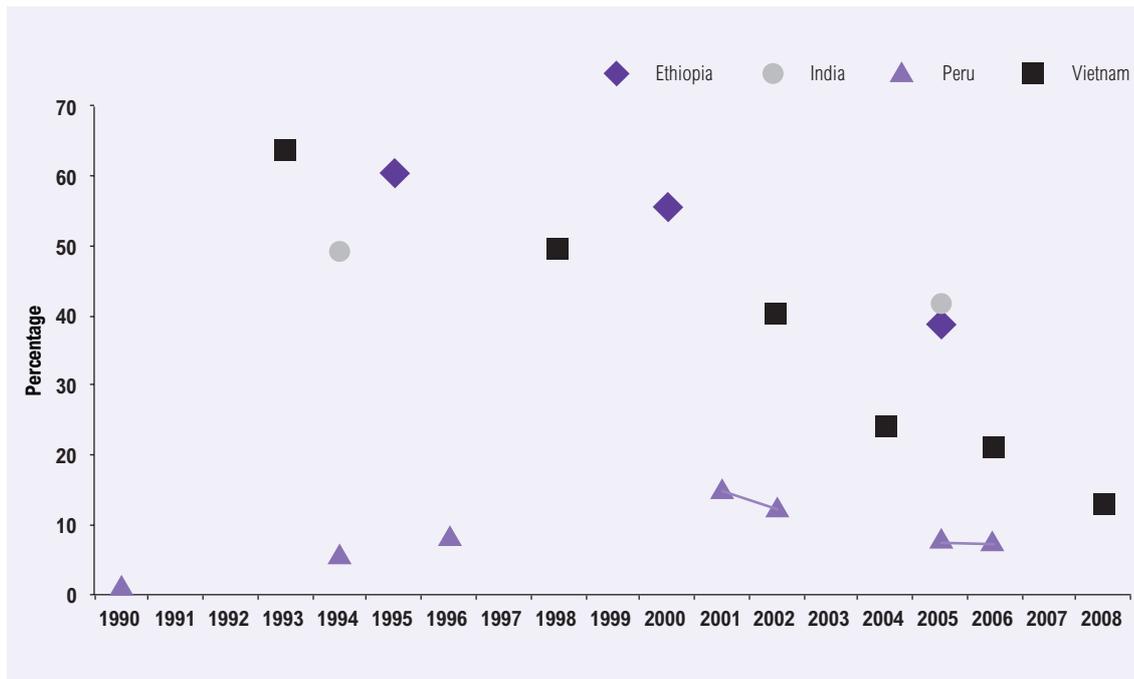
National income inequalities have increased in Vietnam and India, and reduced in Ethiopia and Peru since 2000

One of the factors that link economic change, poverty levels and the impact this may have on children is how income is distributed. There are a number of ways of considering this distributional equity. Here we use data analysed by Ortiz and Cummins (2011) to look at patterns in each of the Young Lives countries and relate these to global patterns, first by quintile distribution and second by Gini measures of inequality.

First, in Figure 4 we look at how the overall income reported in a country is shared between each fifth of the population. Population fifths (quintiles) provide a useful way of understanding the scale of disparities. However, quintiles mask differences *within* each fifth, which is likely to be particularly important at the top,[8] and therefore also hides changes over time if the very richest households are particularly benefiting (Palma 2011). Splitting analysis into deciles (as is done in Sections 5 and 6) helps explore changes at the very top and bottom but risks more bias from the smaller numbers used in the analysis. Data in Figure 4 rely on income, whereas wealth inequality, reflecting stocks built up by income over time, tends to be greater.[9]

Figure 4 provides the evidence. If income were shared equally, each fifth of the population would hold a fifth of income. The variations from this pattern demonstrate how unequal each country is on this indicator. The richest quintile report between twice (Ethiopia) and close to three times (Peru) the income expected if it were equally shared. The fourth, next-richest quintile report around 20 per cent of the overall income in each country. The poorest three quintiles, i.e. the bottom 60 per cent of the distribution, report much less income than they would if income were equally distributed, and this disparity grows the further down the

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8   For example, Birdsall and McLeod (2010) note analysis showing an average gini for South American countries of 52, falling to 36 points if the top 10 per cent were excluded from the calculation.

9   Also worth noting, consumption data tends to be slightly more equally distributed than income data (Palma 2011).

distribution, most acutely in Peru. By the second poorest quintile, households have about half the amount they would if income were equally shared, by the poorest quintile households are reporting between 3.7 per cent (Peru) and 9.3 per cent (Ethiopia) of national income. In national terms, therefore, across all four countries there is a broad story of somewhat equal distribution in the middle, but big disparities at the top and bottom.

Figure 4. Income distribution by quintile, 2005
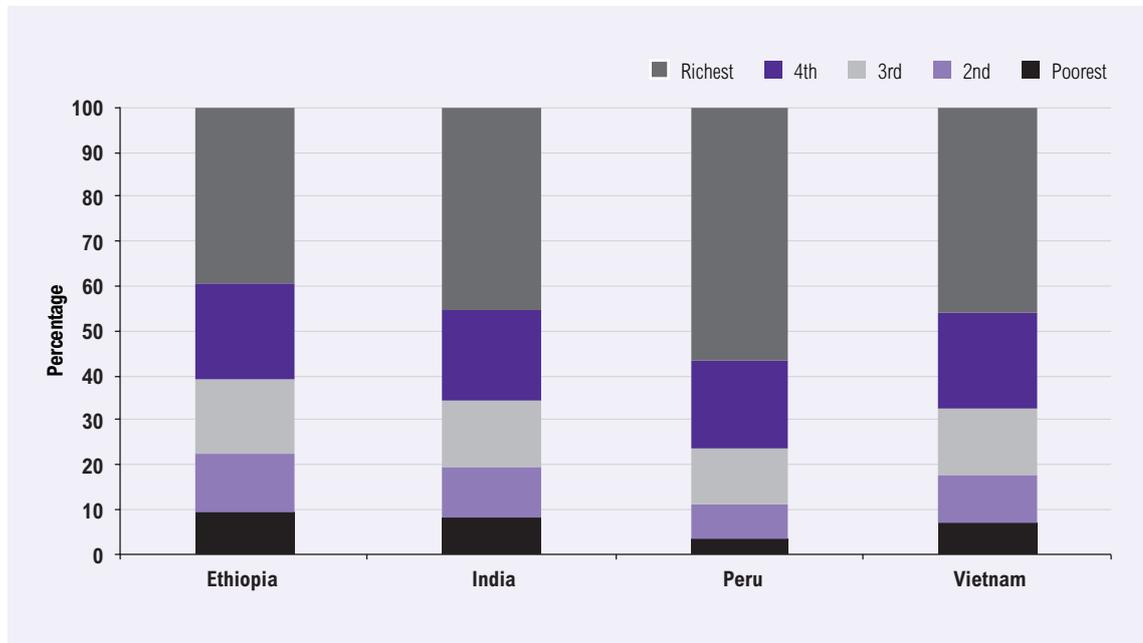
Source: Author's calculations using data from Ortiz and Cummins 2011.

The Gini coefficient provides a commonly used way of considering income inequality (the higher the value, the more unequal). As global context, Ortiz and Cummins provide Ginis on a regional basis (averages, un-weighted by population), suggesting 2008 averages of 40.8 for Asian countries; 35.4 in Eastern Europe and central Asia; 48.3 in Latin America and the Caribbean; 39.3 in the Middle East and North Africa; 44.2 in sub-Saharan Africa; and 30.9 in higher-income countries. They use this evidence to show increasing within-country inequality in most regions between 1990 and 2008, this process being accelerated in Eastern Europe and Central Asia, which experienced the break-up of the Soviet bloc and significant subsequent economic change (gini rose from 26.7 to 35.4). The index fell on average in sub-Saharan Africa from 49.1 to 44.2. They also suggest that inequality rose in Latin America and the Caribbean between 1990 and 2000, but then fell by 2008.

Figure 5 considers the Gini measure of inequality in Young Lives countries. It demonstrates that:

● Peru experienced a higher level of income inequality throughout this period, in line with the regional trend, rising rapidly after 1990 and then falling slightly after 2000.

● In both India and Vietnam, inequality levels broadly rose over the period. In India this rise was at about the same average for the Asian region (unweighted by population[10]); in Vietnam the rise was smaller than the regional average.

10 Important since India's large population means that if regional averages were weighted by population size the regional figure would be dominated by trends from India.

- In Ethiopia inequality fell, which is consistent with a wider story of falling inequality in sub-Saharan African countries. Although this is a large change, some caution is needed and needs to be replicated by other sources of data to improve confidence in the result.[11] There is, however, concern over levels of urban inequality and the potential for this to be a driver of increased inequality with urbanisation (see Woldehanna et al. 2011).

Figure 5. Income inequality in Young Lives countries, 1990–2007/08 (Gini coefficients)
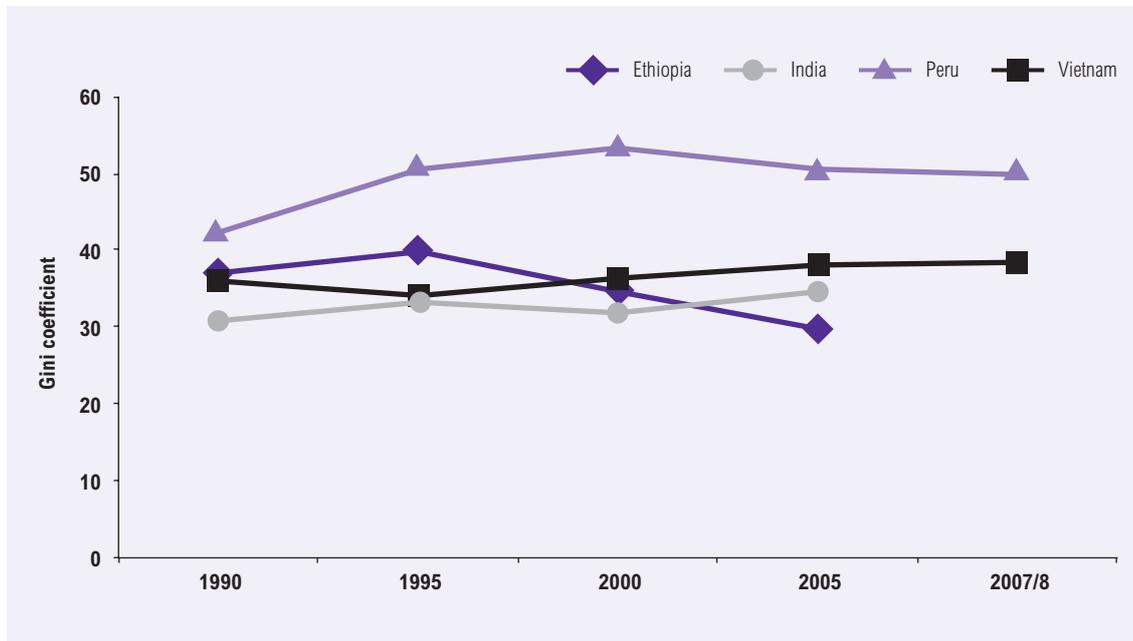
Source: Author's calculations using data from Ortiz and Cummins 2011.

5. Analysis of trends in the experience of different groups of children

Having set the broad context using nationally representative data, this section considers evidence of general change within the Young Lives samples. We first consider general change, and then unpick differences by group using four distinct indicators: top and bottom decile; maternal education levels; ethnicity or caste; and rurality. Pells (2011a) explores also the associations between these groups and child well-being indicators such as school enrolment and nutrition.

With so many different ways of analysing the data there is a risk of failing to see the wood for the trees, and so we try to avoid over-interpreting specific disaggregation but use disaggregation to build up a general sense of change. With a couple of exceptions, this exercise broadly bears out a picture of general improvement in wealth and consumption indicators over the period across most groups, but with marked disparities both between groups and in the extent of change. Both wealth index and consumption indicators are used. These analyses suggest:

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11 Between 2006 and 2009 in the Young Lives sample for Ethiopia, the gini coefficient applied to consumption data fell slightly from 0.353 to 0.336. Separating urban and rural areas shows that this was driven by reductions in inequality in rural areas, not within towns.

- A general picture of inclusive growth on both wealth index and consumption measures (i.e. most groups gained something, but the poorest households tend to have gained less in absolute terms than other groups and so sample inequalities grew, raising concerns over entrenched marginalisation). The pattern is most likely to be pro-poor, i.e. groups which were poorest in 2002 seeing the greatest absolute gain, when measured using the wealth index. The most consistent evidence for pro-poor change on the wealth index is when considering differences between urban and rural areas, where gaps seemed to narrow in all countries but Peru. The construction of the wealth index means it is most likely to show pro-poor growth patterns and with that in mind it is concerning that gaps grew on this index in some cases, including minority ethnic groups in Vietnam, and the poorest wealth decile in Peru.[12] This is a particular concern given minority ethnic communities already show other indicators of marginalisation (Chi 2011; Cueto et al. 2011; Duc et al. 2011; Pells 2001a; Pells 2011b).

- There are fewer examples of pro-poor growth when considering consumption changes between 2006 and 2009, the typical pattern being for inequalities to widen, although pro-poor growth is apparent in some of the data from Peru, and in both Peru and Ethiopia there is some evidence of narrowing gaps between urban and rural areas.

The rest of this section develops these findings. The wealth index is also disaggregated to its constituent elements to consider what underlies index changes.

Overall consumption and wealth levels in the Young Lives sample have increased in recent years

At this point it is worth recalling that over the study period all countries were generally growing strongly, in line with the experiences of many low- and middle-income countries, but that after 2000 Ethiopia and Peru saw falling income inequality levels, while Vietnam and India experienced rising inequality levels. These national trends are associated with a consistently improving wealth index in each country (see Figure 6). Consumption levels also rose between 2006 and 2009 despite the concurrent food, fuel and financial crises,[13] increases ranging between 5.4 per cent for Young Lives households in Ethiopia, 15.6 per cent in Andhra Pradesh, 14.3 per cent in Peru and 49.5 per cent in Vietnam.

To consider this in more detail we use the wealth index to summarise the type of changes observed. Figure 6 presents the wealth index for 2002–9, disaggregated by the constituent components (housing quality, household consumer durables, and services). As described above, since the index construction varies between countries in light of typical national conditions, it is used to look at trends over time, not absolute levels. Using the index suggests the following findings:

- Access to consumer durables tended to increase most quickly, which is logical, it being easier for households to purchase more of these smaller items than to replace the roof or walls, which might affect the housing quality indicator. Peru is an exception where services increased more quickly.

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12 As discussed in Section 2, though households could, in principle, see any level of consumption growth, the wealth index is a constrained measure based on a set of items (housing quality, services, consumer durables). Since richer groups are more likely to have these in Round 1, and since over this period service access in rural, poorer areas rose, this measure is particularly likely to show pro-poor improvements.

13 Data on economic shocks and on price fluctuations over this period are discussed in country reports for the 2009 data (Woldehanna et al. 2011; Galab et al. 2011; Escobal et al. 2011; Le Thuc et al. 2011). Dercon (2008) uses analysis of Young Lives data to explore the probable impacts of stunting, linked with the food price crisis and undernutrition, on children's later development. Vennam et al. (2010) also use Young Lives qualitative data from Andhra Pradesh to describe how young people experienced these events, demonstrating that young people were aware of the pressures affecting their families and communities and were active participants in helping to manage these pressures.

- Service access also increased in each country, most quickly (though remembering the index is not directly comparable between countries) in Peru and Ethiopia. Since poorer communities are likely to be those with least service access, drives to improve overall access to services, especially if these are focused on poorer areas, are likely to be pro-poor.

- Housing quality improved over the period, although typically at a slower rate than the other items. Andhra Pradesh is an exception where housing quality and service access grew at about the same rate.

Figure 6. Change in the components of the wealth index, 2002–9
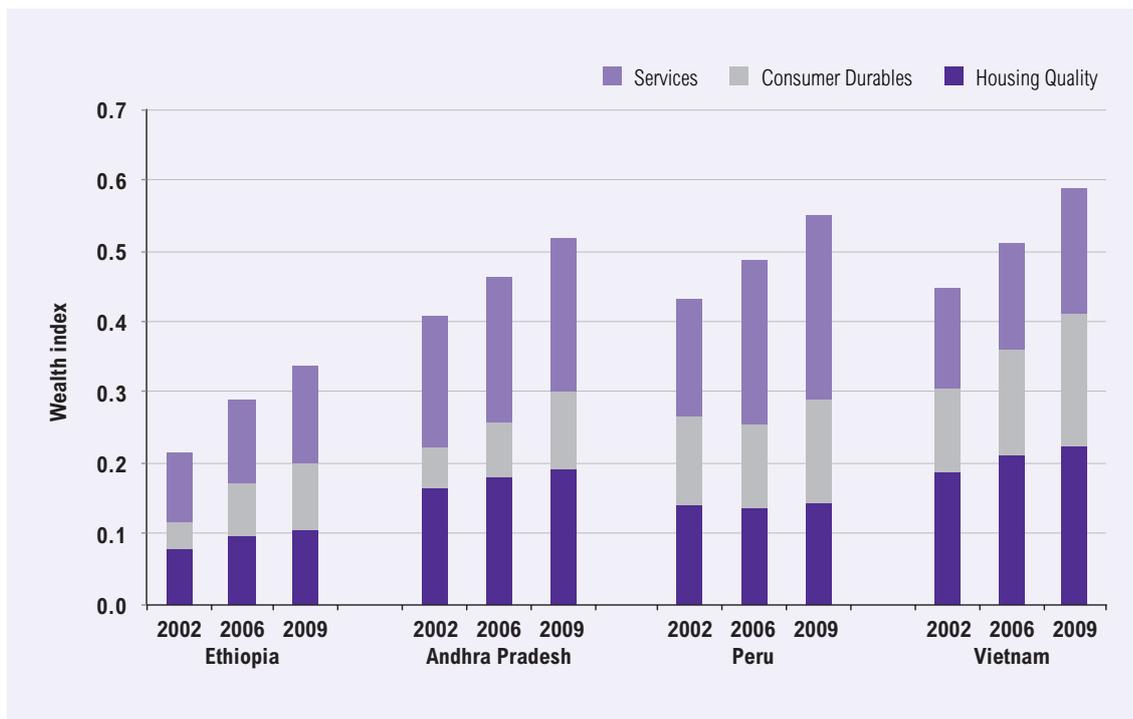
Analysing the sample by deciles shows wide disparities between the top and bottom. Both top and bottom deciles gained between 2006 and 2009 but richer households gained more than poorer ones

To disaggregate the general trend of change over time we next consider growth at the top and bottom of the consumption distribution. This is done using consumption data, ranking households by splitting them into ten equal groups (deciles). Later in the paper we also provide some related analysis at a site level.

There is a considerable variation in consumption levels within the Young Lives sample, with the least-poor decile having around four to five times the consumption level of the poorest decile. Between 2006 and 2009 both the top and bottom deciles saw consumption increase in all countries, but the cash increase was highest for the least-poor tenth.[14] Typically the gap between top and bottom decile grew. Figure 7 demonstrates the general pattern, using data from Andhra Pradesh (fuller data from all countries is in Table 1 below).

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14 The difference was small in Ethiopia, where consumption rates did not increase substantially over the period. The data from Ethiopia also suggest that growth at the top and bottom was higher than in the middle.

Figure 7. Changes in consumption levels and inequality in Andhra Pradesh sample, 2006–9
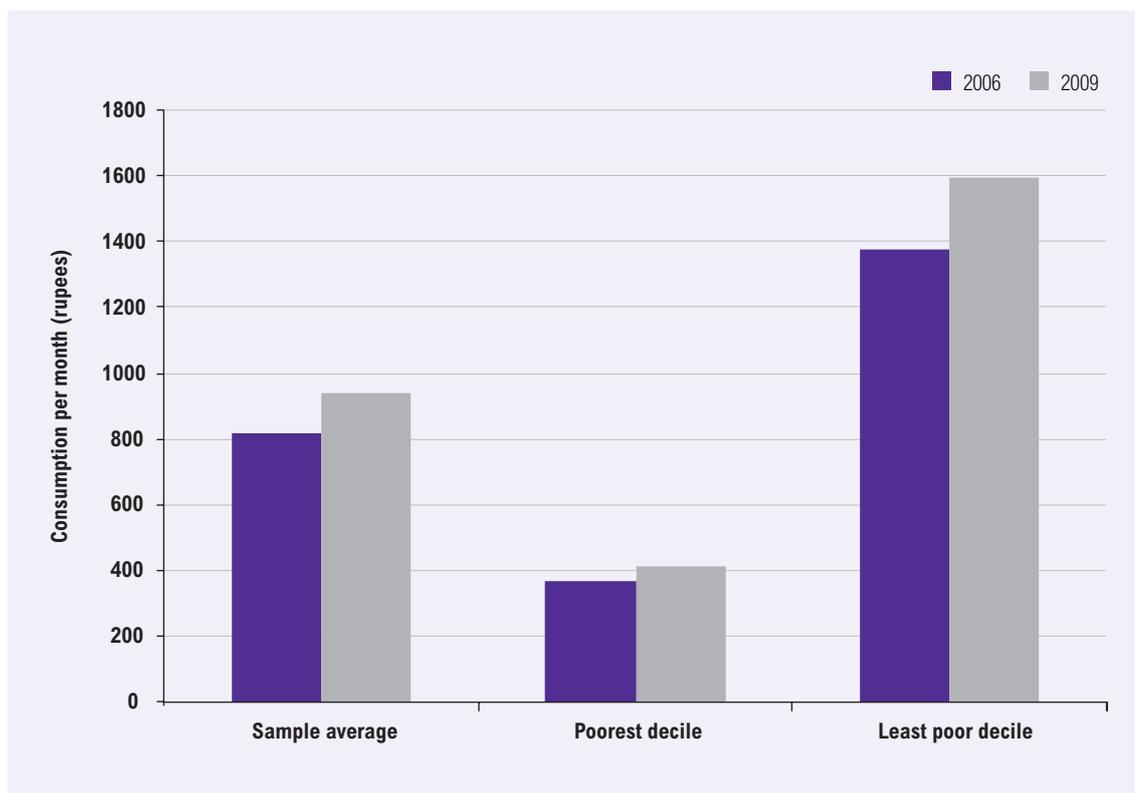
As well as providing fuller data on measured changes, Table 1 presents both absolute change in cash terms and percentage change. Often percentage change is used to demonstrate relative rates of change over time. Using percentages makes it easier to compare the rate of change between groups with different starting positions. However, a relatively small cash rise experienced by a group with a low starting wealth or consumption level will show up as a large percentage rise, and so large percentage rises for poorer groups do not necessarily mean a narrowing of the absolute gap. This methodological point is particularly significant in the data for Peru and Vietnam. In absolute terms the least poor decile saw a larger cash increase (40 *soles* compared with 16 *soles* in the Peru case) but a smaller percentage increase (11.5 per cent compared with 23.2 per cent). Even though poorer Young Lives households in Peru and Vietnam saw a larger percentage increase, the absolute gap did not narrow. To minimise this concern, analysis here tends to use cash change.

Analysis based on the wealth index over the 2002–9 period, using similar principles to those employed in assessing consumption levels, demonstrates a slightly more progressive pattern. In Ethiopia the absolute gain was similar in both top and bottom deciles; in Vietnam and Andhra Pradesh the poorest 10 per cent saw a larger absolute gain; in Peru the top 10 per cent saw a larger increase over the period.

Table 1. Consumption within Young Lives samples, 2006–9

	Poorest decile	Least poor decile	Sample average
Ethiopia (*birr*)			
2006	55	261	145
2009	63	269	150
Change	8	9	4
Change (%)	14.5	3.1	3.4
Andhra Pradesh (*rupee*)			
2006	365	1373	815
2009	415	1591	942
Change	50	218	127
Change (%)	13.7	15.9	15.6
Peru (*sole*)			
2006	69	349	194
2009	85	389	221
Change	16	40	28
Change (%)	23.2	11.5	13.9
Vietnam (*dong*)			
2006	153	678	385
2009	234	988	577
Change	81	311	191
Change (%)	52.9	45.7	49.9

Note: Figures in the Table are rounded.

The rest of this paper explore these trends in greater depth, using several different breakdowns of the data: two by group (parental education level; ethnicity or caste); and two by location (rural/urban and sentinel site).

Analysing consumption and wealth by maternal education demonstrates how closely these are associated, but shows different pictures between country samples of change over time

Higher maternal education levels are closely associated with household wealth and consumption levels, and maternal education may bring benefits for children which are additional to and independent of income (see Pells 2011a). Maternal education levels act as a proxy for other socio-economic or geographic factors because levels of education vary between groups. Since there is a different history of development and of education in each country, there are also varying levels of maternal education, and so the breakdowns used in each country are necessarily different.

There is a consistent picture across countries that children with the most educated mothers tend to have higher consumption and wealth levels than children with less-educated mothers. In terms of change, looking at the wealth index first, the highest absolute gains accrued for households where mothers have either lower or middling levels of education. Looking at consumption, the absolute gain was highest for children in households with the most educated mothers in all cases but Peru, where children with mothers who had no formal education actually saw the greatest absolute increase.

Data from Peru are used to demonstrate the general picture, although with the caveat that the trend here is more progressive than in the other three countries. Figure 8 shows the link between maternal education level and consumption: Young Lives households in Peru with mothers who were educated beyond secondary school reported about 2.9 times the consumption level of households where the mother had no formal schooling. Although the scale of the variation is different between countries, the pattern is consistent – households with more educated mothers report higher wealth and consumption levels. As previously noted, this is not necessarily causative; the causes may partly be due to differences in the livelihoods of more educated households, but may also reflect other determinants of consumption level, such as living in rural areas, or a history of higher consumption in households more likely to send the previous generation (the mothers in this chart) to school for longer.

Figure 8. Consumption by maternal education levels (Peru, 2006 and 2009, in 2006 real-term prices)
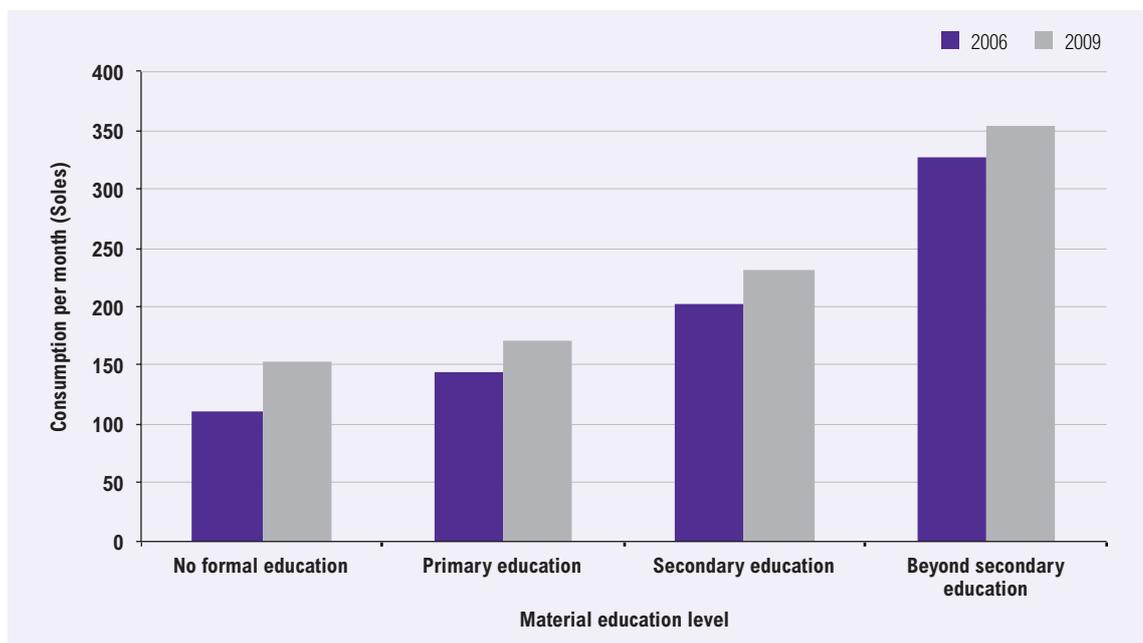
Considering the pattern of change 2002–9 (wealth levels) and 2006–9 (consumption), the data show different patterns in each country:

● In Ethiopia, growth in cash terms was greatest for households with a relatively high level of education (more than Grade 8 schooling); but the second highest level of absolute increase was by households with mothers who had no formal schooling. There was little movement – if anything a reduction – for those with a middle level of education. The picture is different using the wealth index, with the largest absolute gains for those with some but not much education (i.e. lower primary education), but with each group experiencing fairly similar increases in wealth level.

● In Andhra Pradesh, consumption increased most between 2006 and 2009 for those with higher levels of maternal education; however, the wealth index shows a progressive pattern where households with lower maternal education levels gained most in absolute terms.

● In Peru, households with mothers with no formal education saw the greatest absolute rise in consumption levels. Other groups actually gained a rather similar amount of additional consumption over the period irrespective of education level. The reason for this progressive gain needs further investigation, and it could reflect a statistical quirk (a bias in a relatively small group). It is also worth noting that the Juntos Cash Conditional Transfer programme

was being rolled out over this period, and Escobal et al. (2011) demonstrate through Young Lives data that those with lower levels of education are much more likely to benefit.[15] The wealth index shows most growth for those households containing mothers with a middle level of education, with smaller absolute increases for those with a higher level of education (beyond secondary) and for those whose mothers had no formal education. As with Ethiopia, however, the differences between groups are small.

● In Vietnam, consumption gains were the largest for those households with higher levels of maternal education. Looking at the wealth index, improvements were progressive in absolute terms, gains being strongest for households with less-educated mothers.

Here we use these differences to strengthen messages about which groups are experiencing what change. Although the picture here is more complicated than the assessment analysed by decile, again a general pattern emerges of inclusive growth for most though not all groups, although according to the consumption data this tends not to be pro-poor. The wealth index and consumption data show different trends, with the wealth index implying progressive change over time.

Indicators of ethnicity or caste are closely associated with different levels of wealth and consumption. Although most groups saw improvements over the period using consumption data, gaps tended to increase

This section offers similar descriptive analysis using indicators of ethnicity and caste. The rationale for this is that minority or disadvantaged communities tend to experience lower levels of wealth and consumption than other groups in society, and it is important to understand whether these patterns are changing over time. Given social and historical differences, appropriate indicators vary between countries. Differences will reflect both the history of disadvantage (including lower levels of education) and also a spatial aspect, in that disadvantaged groups are often located in more rural areas (see Chi 2011). We use a regional breakdown in Ethiopia as a means of identifying ethnic distinctions; caste and tribal group in Andhra Pradesh; ethnicity in Peru, and minority or majority ethnic groups in Vietnam. The definition in Ethiopia is a regional one, chosen in line with the country report (Woldehanna et al. 2011) because for most of the regions outside the capital ethnic identity and region are closely overlapping; as with the whole sample, these figures are indicative but not representative of changes at the regional level.

This analysis by indicators of ethnicity, tribal or caste group echoes the findings on maternal education, in that there are marked disparities between different regional/ethnic and caste groups in both consumption and wealth levels. Figure 9 demonstrates the general message using data from Vietnam – there are big disparities between average wealth levels for the majority (Kinh) population, and minority (mostly H'Mong) groups. In real terms both populations gained between 2006 and 2009, but the gap between them widened slightly over this period.

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15 About one in five Young Lives households overall, rising to just less than half of households where the mother has no or an incomplete primary school history (see Escobal et al. 2011).

Figure 9. Consumption change in Vietnam by ethnic group, 2006–9
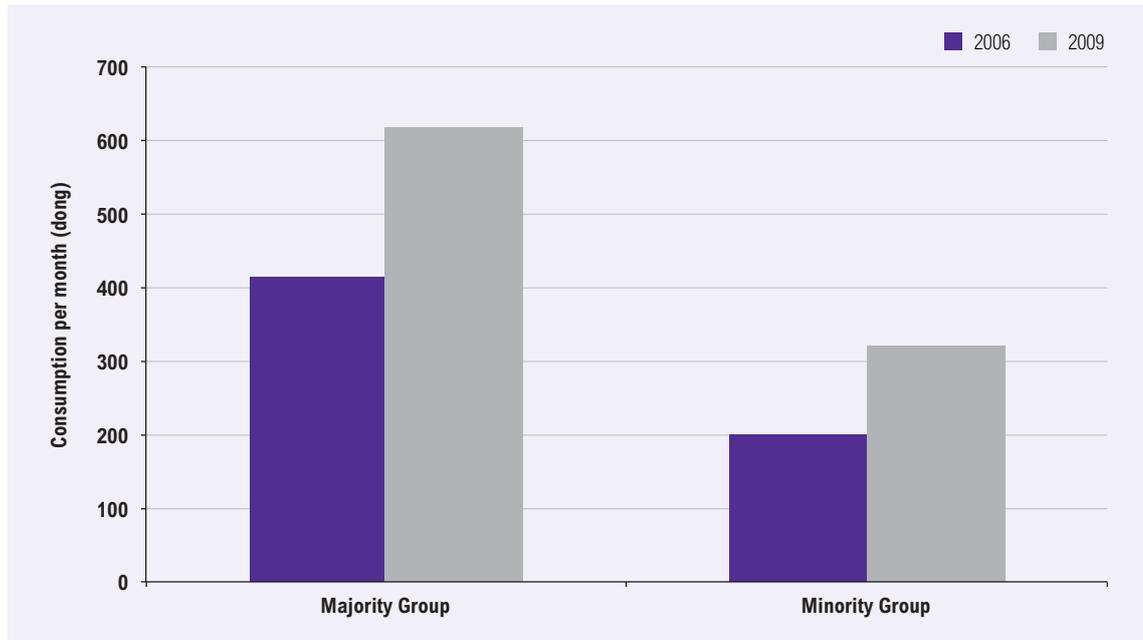
In absolute terms the average wealth position of each group in all countries improved over the 2002–9 period.

- Ethiopia: The regional analysis suggests a mixed picture. The wealth index increased least over this period for households in Addis Ababa, where wealth levels were initially higher. Among households in the other regions there are differing patterns between wealth and consumption levels, households in Oromia region seeing a higher average wealth increase than households elsewhere, but with households in Amhara region seeing the highest consumption increases (Addis households saw these increase, but by lower amounts).

- In Andhra Pradesh there is a complex story whereby, considering the wealth index, children from scheduled tribe, caste and backward-caste groups gained the most, and some initially wealthier groups the least. In terms of consumption, the groups which gained most were those children from initially higher-consuming households, including backward-caste groups and those in Muslim households.[16]

- In Peru changes in the wealth index over time were somewhat similar across groups. However, it is notable that, although each group (in this case white, mestizo and indigenous groups) saw consumption growth between 2006 and 2009, the increase for the much poorer indigenous group was larger than for other groups; this is likely to be related to maternal education in Peru, discussed above. Although consumption increased more for indigenous groups than for others, these households began in 2002 with a lower wealth index position and saw less of an increase over the period than other groups in Peru.

- In Vietnam, minority ethnic households both report a lower level of wealth in 2002 and see a smaller increase between then and 2009 than majority ethnic households. The same picture is true with consumption data (see also Figure 9) – both groups gain, but the gap widened.

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16 This is very unlikely to be representative of the wider picture; children from a Muslim background tend to be in households which appear richer than would be expected, largely because they tend to be from urban sites.

As with maternal education levels, a heterogeneous picture emerges. This reinforces the point that inclusive growth occurred for most groups but that, using consumption data, it was unlikely to be pro-poor, with the exception of Peru, where indigenous communities saw the largest increase in consumption levels. It is also apparent from this evidence that conclusions are sensitive to the measure, with the wealth index tending to be much more pro-poor than the consumption index. The wealth index – and particularly the service component – reflects policy or market-driven improvements in service access. For example, it was noted above that Young Lives households in Oromia region report an increase in the wealth index. Woldehanna et al. (2011) report an increase in access to improved water, sanitation and electricity for households in that region (all elements in the wealth index).

Average wealth and consumption levels in rural areas are much lower than in urban areas. Wealth index changes since 2002 have tended to be pro-poor on this indicator, as were consumption changes in Ethiopia and Peru

Next we consider urban and rural differences. Differences between town and countryside are long established and mirrored here, consumption and wealth levels being lower on average in rural areas. Section 6, however, demonstrates the limitations to these conclusions by using more fine-grained analysis by geographic location. Although much of this analysis is similar to previous sections (presented more fully in Table 2), we also disaggregate the wealth index in Andhra Pradesh to unpick how different components of the index changed over this period.

Table 2 summarises this data on both wealth and consumption levels. The table shows data for all country samples. The focus here is on the trends over time, not comparison of the numbers between countries (the numbers are averages, not an indication of the inequalities within urban or rural areas, which may be considerable). The first two columns of numbers refer to wealth levels, the final two columns to consumption data. The rows detail the position in each year, with a row detailing absolute gain on either measure (between 2002 and 2009 for the wealth index and 2006 and 2009 for consumption, for which data are only available in the latter two years).

Throughout the period and across countries both wealth and consumption levels were higher in urban areas than in rural areas, often considerably so, e.g. in 2009 households in urban areas in Vietnam were reporting double the consumption of those in rural areas. Wealth levels and consumption both increased over the period. The data show that overall averages in both wealth index and consumption increased over the period. The wealth index changes (with the exception of Peru[17]) are pro-poor, with households in rural areas reporting the greatest increases in wealth levels. In two cases, Ethiopia and Peru, consumption growth was pro-poor, with consumption rising most in rural areas. In Andhra Pradesh and Vietnam, although consumption rose in both urban and rural areas, the gaps widened between 2006 and 2009, consistent with national inequality trends over this period, see Section 4.

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17   This is driven by an increase in wealth levels in Peruvian urban areas between 2002 and 2006. Unpicking this further suggests that service access improved particularly fast for Peruvian urban households between 2002 and 2006 and, though services also increased in rural areas at the same time, consumer durable ownership in rural areas appeared to fall, so masking some of the service increase.

Table 2. Wealth and consumption change in Young Lives sample 2002–9

|	Wealth levels		Consumption (in national currency per month)	
	Urban	**Rural**	**Urban**	**Rural**
Ethiopia				
2002	0.389	0.118	-	-
2006	0.438	0.19	188	111
2009	0.474	0.245	192	121
Gain over period	0.085	0.127	4	10
% change over period	21.9	107.6	2.1	9.0
Andhra Pradesh				
2002	0.645	0.33	-	-
2006	0.661	0.395	964	763
2009	0.679	0.516	1123	882
Gain over period	0.034	0.186	159	120
% change over period	5.3	56.4	16.5	15.7
Peru				
2002	0.509	0.263	-	-
2006	0.63	0.296	240	132
2009	0.626	0.344	242	164
Gain over period	0.117	0.081	2	32
% change over period	23.0	30.8	0.8	24.2
Vietnam				
2002	0.704	0.382	-	-
2006	0.703	0.46	674	313
2009	0.788	0.541	949	479
Gain over period	0.084	0.159	276	166
% change over period	11.9	41.6	40.9	53.0

Note: Figures in Table are rounded. Gain or percentage change over period relates to 2002–9 for wealth levels, and 2006–9 for consumption.

Figure 10 uses a disaggregated wealth index for Andhra Pradesh to explore what drove the change in the wealth index over this period. The intention is to show not only the change in wealth index position (noted in Table 2) but also some of what that might mean in practice in terms of living conditions:

● Overall households in both urban and rural areas saw an average improvement between 2002 and 2009. Each element of the wealth index is lower for rural households compared with those dwelling in towns (worse housing conditions, service access and lower ownership of consumer durables), while the increases were greatest in rural areas.

- In urban areas there was no movement in the average for housing quality and services; if anything it fell, but the change was small and unlikely to be significant. Caution is needed in interpreting this result, since other urban conditions not captured in the measure may have improved over the period[18] (see discussion in Section 2). The scale does show increasing access to consumer durables.

- The improvement in the index in rural areas was made up of improvement in each component element (improving housing conditions, service access and increasing ownership of consumer durables), with the largest increase in access to durables.

Figure 10. Disaggregating the Young Lives wealth index data for Andhra Pradesh by urban and rural location, 2002–9
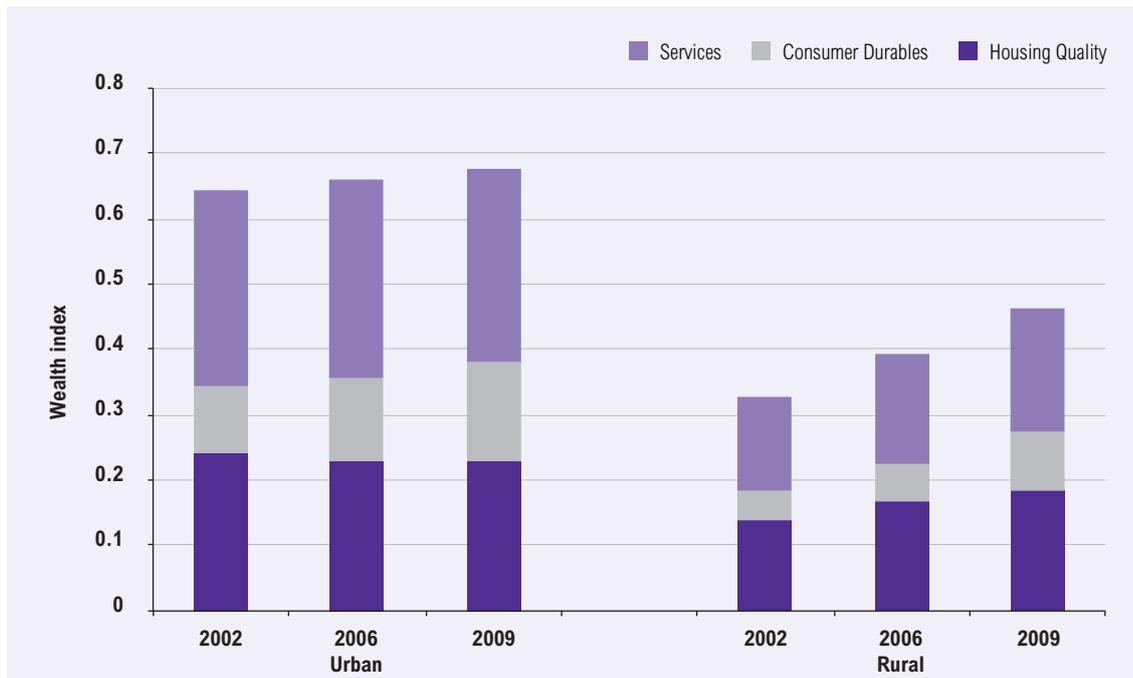
The causes of the patterns in the change of the wealth index are likely to vary between countries, e.g. levels of service access and a policy focus to increase these could have a big impact on the measure. However, as a general characterisation the increases in towns tended to be more driven by consumer durables, whereas in rural areas both consumer durables and service access improvements were important. In urban areas service access tended to be much higher (closer to the top) at the start of the time period than in the countryside, suggesting that less progress was possible. This does not imply that other wealth improvements have not happened, as is suggested by consumption growth, as these may not be captured in the index. In rural areas housing quality tended to rise over this period much more slowly than the other indicators.

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18 It is also worth noting that the top of each wealth index component is worth about 0.33 to the overall score. For services, the urban score is close to the maximum and therefore it could not improve much further.

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6. Wealth and consumption levels in Young Lives sites

The Young Lives data collection method gives an opportunity to consider how specific geographic communities have been changing since 2002, and as such there is an opportunity to go beyond simple urban/rural breakdowns. Site-level analysis may more appropriately capture the experience of local economic or policy changes. Site names here are pseudonyms to protect the anonymity of Young Lives households. Because this analysis allocates households to specific geographic areas, those households which have migrated by Wave 2 of the study are excluded from this analysis.

The survey methodology behind the Young Lives study relies on a series of sentinel sites – locations selected for inclusion within the survey to represent a range of different circumstances within the country. This sample method also gives an opportunity to consider how communities are changing over time. In each country sample, there are 20 sites with around 150 children and young people in each (100 of the younger cohort; 50 in the older cohort). Within sites these children were selected randomly from lists of children of the right age for inclusion,[19] and so to that extent this evidence is representative of the broader community-level experience. Here we make use of descriptive analysis using averages derived from household data, i.e. the average of all Young Lives households in a given site. At this stage the analysis is exploratory; further work is needed to understand the links between community-level changes to child outcomes, and to connect policy interventions with community-level conditions.

Analysis at the site level suggests a couple of broad points relevant to how growth was experienced by communities:

- Each site in all countries saw average improvements in wealth levels between 2002 and 2009. Although no site saw its wealth index average fall, some made little progress. There is also more mixed evidence using the consumption data, which suggest that some sites saw consumption levels fall in real terms between 2006 and 2009. This is consistent with the more clear-cut sub-group analysis shown above, which does imply that some groups gained far less than others.

- Second, although households in urban areas tend on average to be more affluent than rural ones, this is not always the case and the gaps have narrowed. Some urban sites in Ethiopia and in Andhra Pradesh report lower consumption levels in 2009 than some of the rural sites. Within the sites there is even more difference between households. In an urbanising world, policymakers need to be thinking about urban inequality and conditions in towns, not just about differences between urban and rural areas.

- Third, with the exception of Ethiopia, alongside differences between sites there is some evidence of widening differences between top and bottom *within* sites, most prominently for households in Vietnam and with the exception of Ethiopia. Catch-up gains between poorer and richer sites seem to be driven by greater gains for wealthier households within poorer sites.

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19 There are different sampling methods used in each country, for example, in the Andhra Pradesh sample, specific villages were selected within geographic sites, and children selected within these communities, relying on random sampling of children of the right age at the lowest point of community observation. See Young Lives technical notes (Outes-Leon and Sanchez 2008; Kumra 2008; Escobal and Flores 2008; Ngoc 2008).

At a site level, wealth levels increased between 2002 and 2009 in all countries and all sites. Although on average consumption levels increased, in some sites these fell

Here we look at how communities changed between 2002 and 2009, using both wealth and consumption data. Vietnam is used to demonstrate the trend (Figures 11 and 12), each dot on the chart representing a site and therefore the averaged experiences of around 150 households in 2002. The chart demonstrates:

- In all sites, the average wealth level was higher in 2009 than in 2002.

- There are wide variations in wealth level between sites across the period, but the correlation between the wealth-index average at site level in 2002 and 2009 is (unsurprisingly) strongly related, meaning that sites with high average wealth levels in 2006 almost certainly also had high average wealth levels in 2009 (the coefficient is 0.96[20]).

- Despite the close relationship between 2002 and 2009 wealth-index averages, there are outliers. One minority ethnic site in the Northern Highlands, Lang Hoi, had both the lowest wealth-level average of Young Lives sites in both 2002 and 2009 and little moved over the period (it is noticeable that Van Lam, another outlier marked on the chart in a different province, also contains minority groups but made much more progress). In the midst of a generally positive pattern, therefore, there are questions about the slower movement of some communities.

Figure 11. Site-level wealth levels in 2002 and 2009, Vietnam

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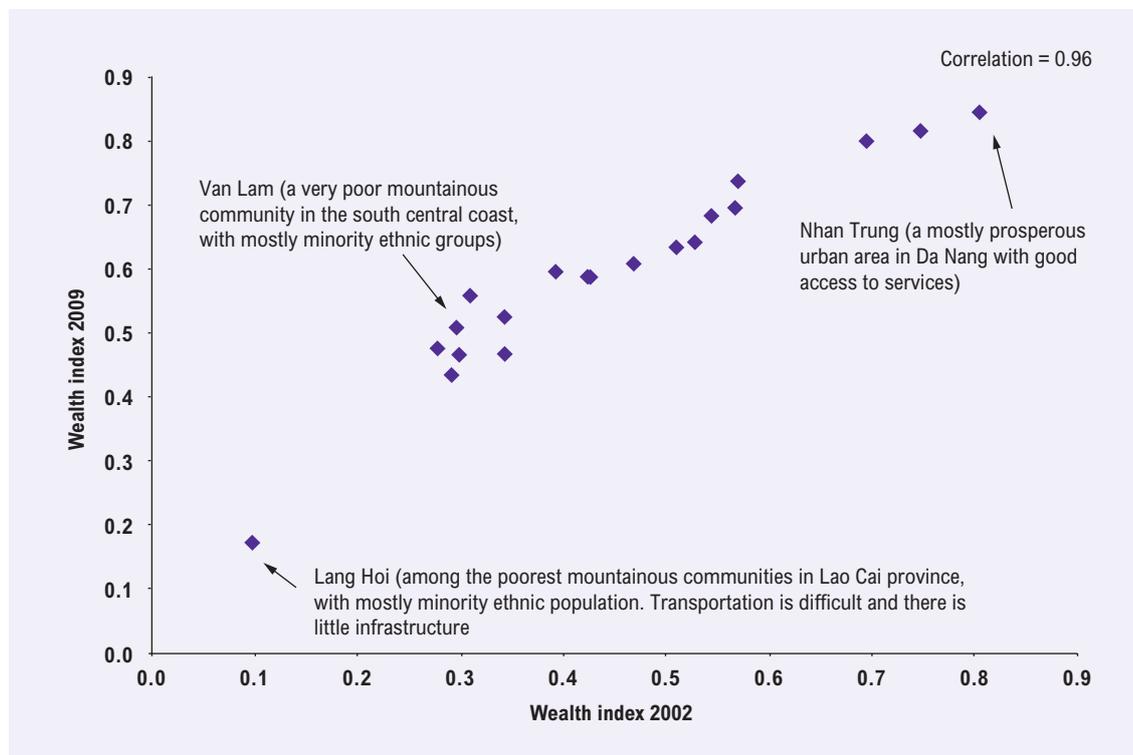
20 The correlation provides a measure of the strength in the association between two variables. A coefficient of 1 suggests two items are perfectly positively related, a coefficient of -1 suggests these are perfectively negatively related, and a coefficient of 0 suggests there is no relationship at all. As a test of association, this does not necessarily imply a causal relationship.

Figure 12 provides analysis for consumption similar to Figure 11 for wealth. Again each site reported a higher average consumption in 2009 than in 2006. In the Ethiopia, Andhra Pradesh and Peru samples the pattern for consumption changes between 2006 and 2009 is somewhat similar to Figure 11, showing that poorer sites tended to gain more or lose less than richer ones. This is not the case in Vietnam where, although the differences are small, if anything gaps between poorer and less poor sites increased between 2006 and 2009.

Figure 12. Site level by consumption level 2006 and 2009, Vietnam (dong per month)
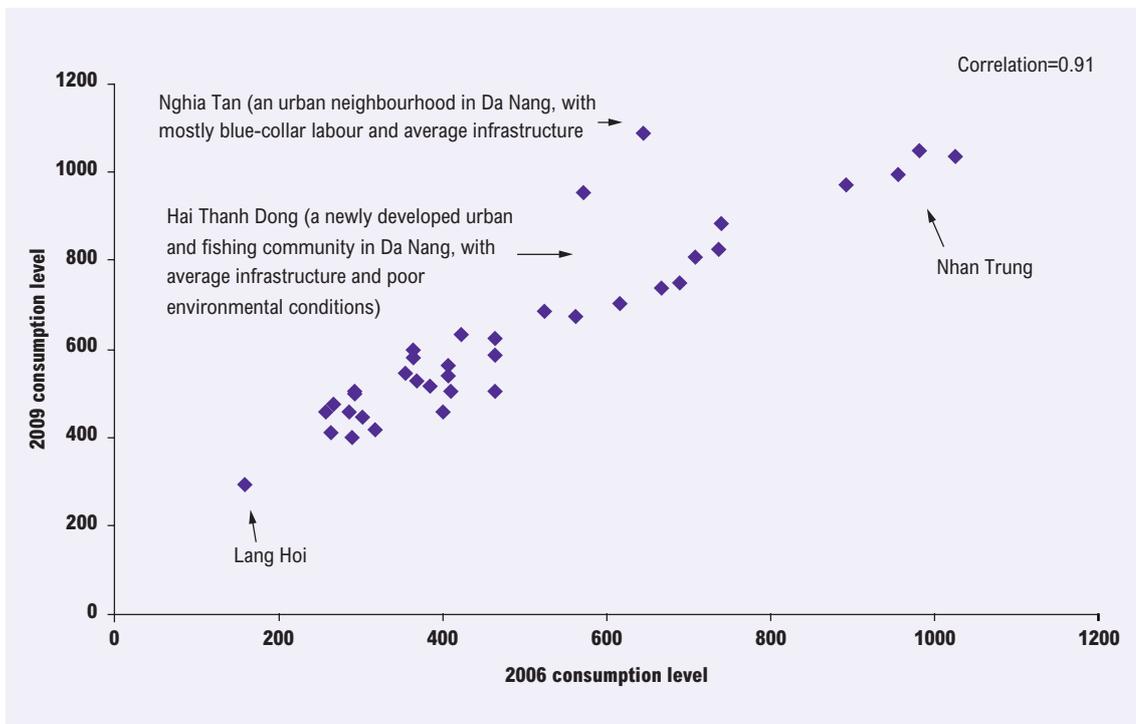

To summarise evidence from the other country samples, in each sample, and for all sites, average wealth index position in 2009 was higher at a site level than in 2002.

There is some evidence on these charts of pro-poor growth, i.e. that the growth for poorer communities was higher than in richer ones, especially for the wealth index. However, we are cautious in interpreting this since it may also reflect the statistical phenomenon of 'regression to the mean' (i.e. where initially low figures at the first point of observation are more likely to rise at the second point of observation; and initially high figures are more likely to fall).

Consumption data from Ethiopia on Figure 13 demonstrate that some sites saw falling consumption. As marked on the chart, a number of communities fall into this group. Further analysis would be possible to examine what caused these falls, but it is apparent that general gains do not mean all communities experience these equally; some got poorer.

Figure 13. Site level by consumption level 2006 and 2009, Ethiopia (birr per month)
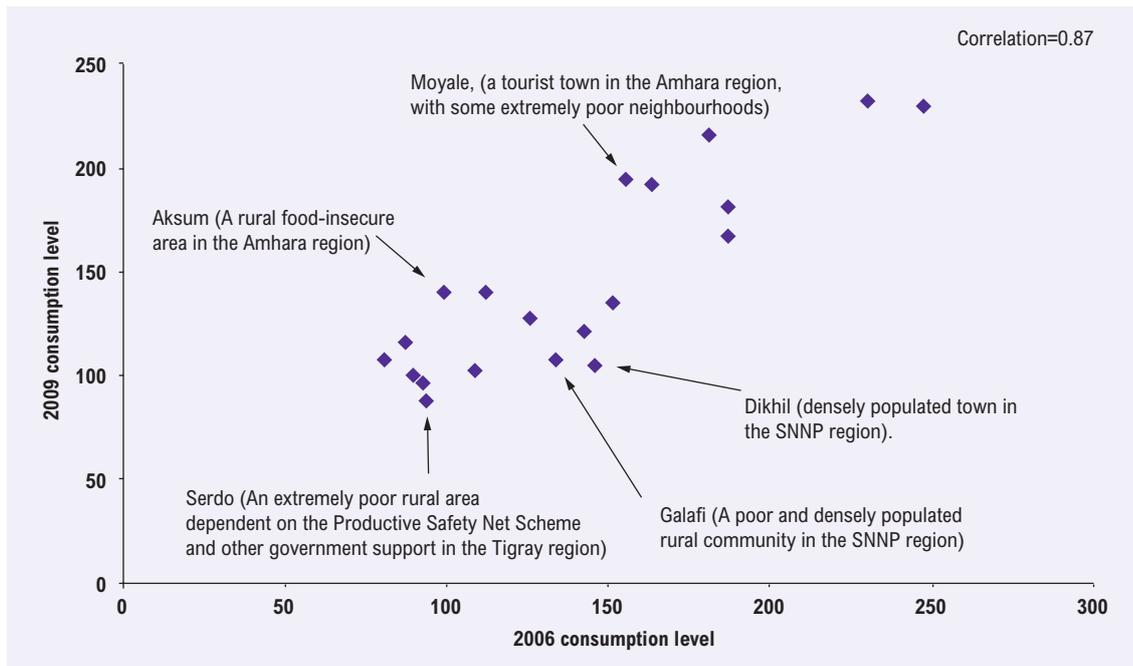
Although urban Young Lives sites tend to have higher consumption levels than rural ones, this is not always the case

Site-level analysis bears out conclusions above that urban communities tend to report higher levels of consumption than rural ones, but using site-level analysis demonstrates also the range of consumption averages, and shows in Ethiopia and Andhra Pradesh (but not in Peru or Vietnam) that some rural communities report higher levels of consumption than rural ones. Figure 14 shows the levels of consumption in urban and rural areas in Andhra Pradesh and demonstrates some rural sites actually have higher average consumption levels than urban ones. Given that communities were selected for inclusion, this should not be used to imply national patterns, but to demonstrate that differences in consumption level are more complex than purely urban and rural.

Figure 14. Consumption levels in 2009 in urban and rural sites (Andhra Pradesh)
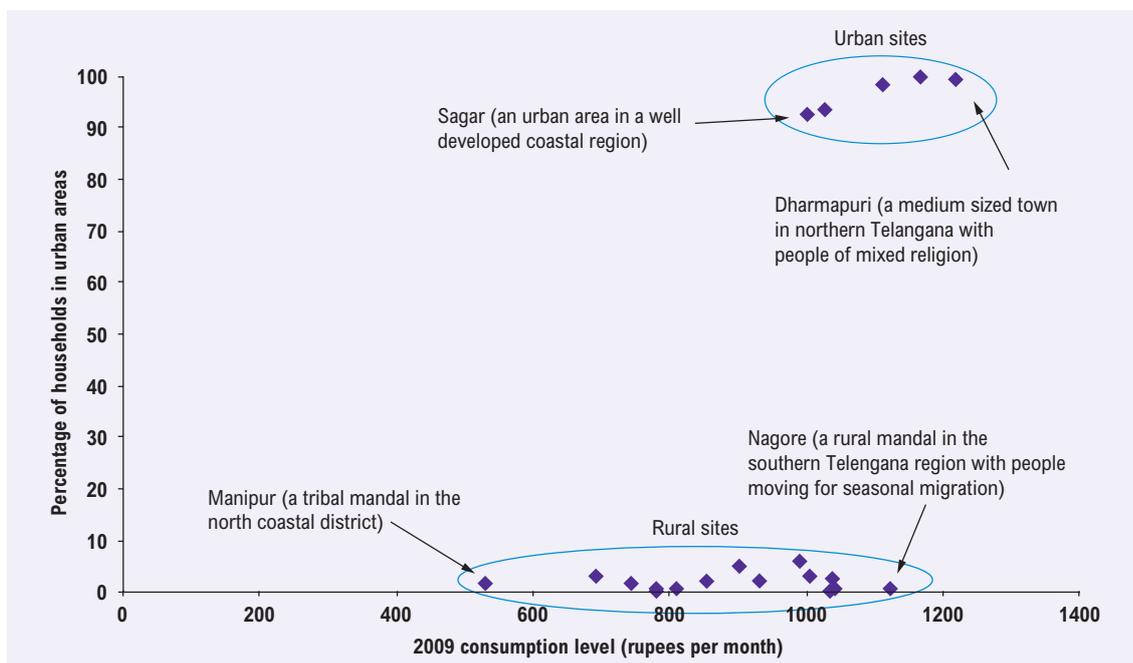
There is evidence of widening gaps within sites

Finally, site-level analysis allows some exploration of changes in inequality within sites. This is considered important because of evidence linking differences in inequality levels to indicators of child well-being. This is rather exploratory analysis and it ought to be noted that some of the numbers are small. To simplify, we only present consumption data.

To develop the analysis we provide three pieces of evidence. First, Table 3 summarises some evidence from all the countries. The first row of numbers presents correlations between the average consumption level within sites in 2006 and the cash change between 2006 and 2009. In Ethiopia, Peru and Andhra Pradesh these show negative correlations between site consumption levels in 2006 and the size of change between 2006 and 2009, although in each case the relationship is not strong. The correlations suggest that lower starting average consumption levels seem to see a larger increase between 2006 and 2009. Vietnam does not follow this pattern (see also Figure 12), although the positive correlation in Vietnam is very low, and so it does not look as though the extent of change in consumption was related to the starting level. The second row of numbers shows the change in the consumption level of the top and bottom deciles. This is drawn up as an indication of how the gap between the top and bottom decile typically changed within sites. It demonstrates that the gap between the top and bottom of the table, though slightly narrowed in Ethiopia, grew in all of the other countries, and quite strongly in Vietnamese sites. The third row is provided as a check to the second, and uses the change in the size of the standard deviation[21] to examine change in the distribution within sites. Its implications are consistent with the changes between top and bottom deciles (if the standard deviation increases in size between 2006 and 2009, this suggests a wider distribution of household consumption within a site).

Figures 15 and 16 use data from Vietnam and from Ethiopia to show changes in the average consumption levels in the poorest and least poor deciles in the sample, at a site level. We avoid drawing specific conclusions about particular sites since the numbers of households involved are small, and so averages are subject to the effect of outliers.[22] What is more important is the general picture in both country samples, elaborating the findings in Table 3; most strongly in Vietnam, where over the period the top tenth within sites tended to see 3.5 times the increase in consumption of the bottom tenth. There is evidence that as a general rule households in the top decile experienced a larger increase between 2006 and 2009 than households at the bottom. As Figure 16 shows, this is not always the case in Ethiopia, although it is notable than in the sites experiencing increasing average consumption that this is often associated with higher gains for those in the least poor decile.

This evidence suggests a pattern of some narrowing *between* sites in Ethiopia, Andhra Pradesh and Peru, as sites with lower consumption levels saw the average grow faster, but evidence of a widening of gaps *within* sites in Andhra Pradesh, Peru and Vietnam. This also suggests – with the exception of Ethiopia – that even if poorer sites seem to be increasing at a faster rate than slightly richer ones, the gains within the sites which are driving this are concentrated in wealthier households.

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21 A statistical measure of variance within a sample, where 95 per cent of cases lie within two standard deviations above or below mean. Therefore a larger standard deviation suggests a more spread sample.

22 For example, given there are around 150 households per site, the top and bottom deciles will include 15 households each and therefore there is a risk of biases from atypical households.

Table 3. Summary inequality changes at a site level

	Ethiopia	Andhra Pradesh	Peru	Vietnam
Correlation between site-average 2006 consumption level and average change 2006–9	-0.3	-0.42	-0.44	0.17
Change in the gap in consumption level between top and bottom deciles (national currency, averaged across sites)	-11.5	158.3	22.9	219.0
Change in standard deviation of consumption (real numbers, averaged across sites)	-5.1	38.8	7.1	97.9

Note: the numbers in the second and third rows are based on national currencies so use different units (change in the gap between top and bottom, and in the size of the standard deviation of distribution of consumption levels within sites).

Figure 15. Change in consumption 2006–2009 for the top and bottom deciles within sites (Vietnam)
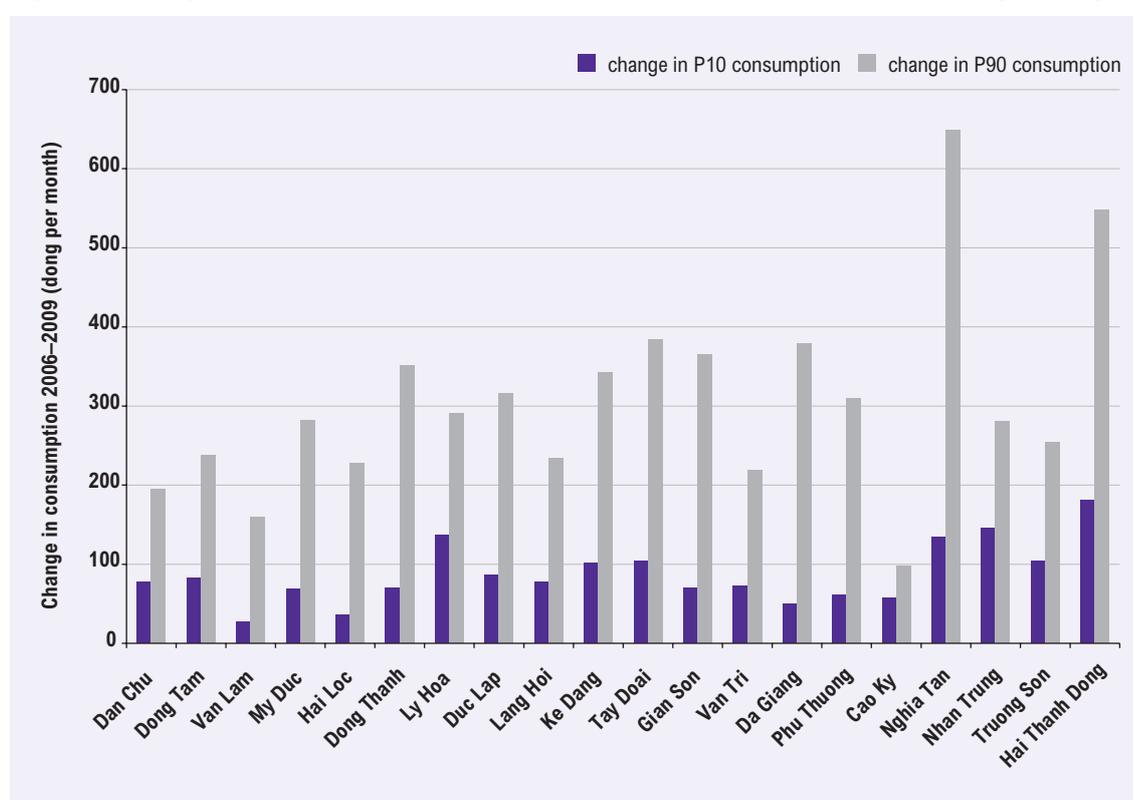
Figure 16. Change in consumption 2006–2009 for the top and bottom deciles within sites (Ethiopia)
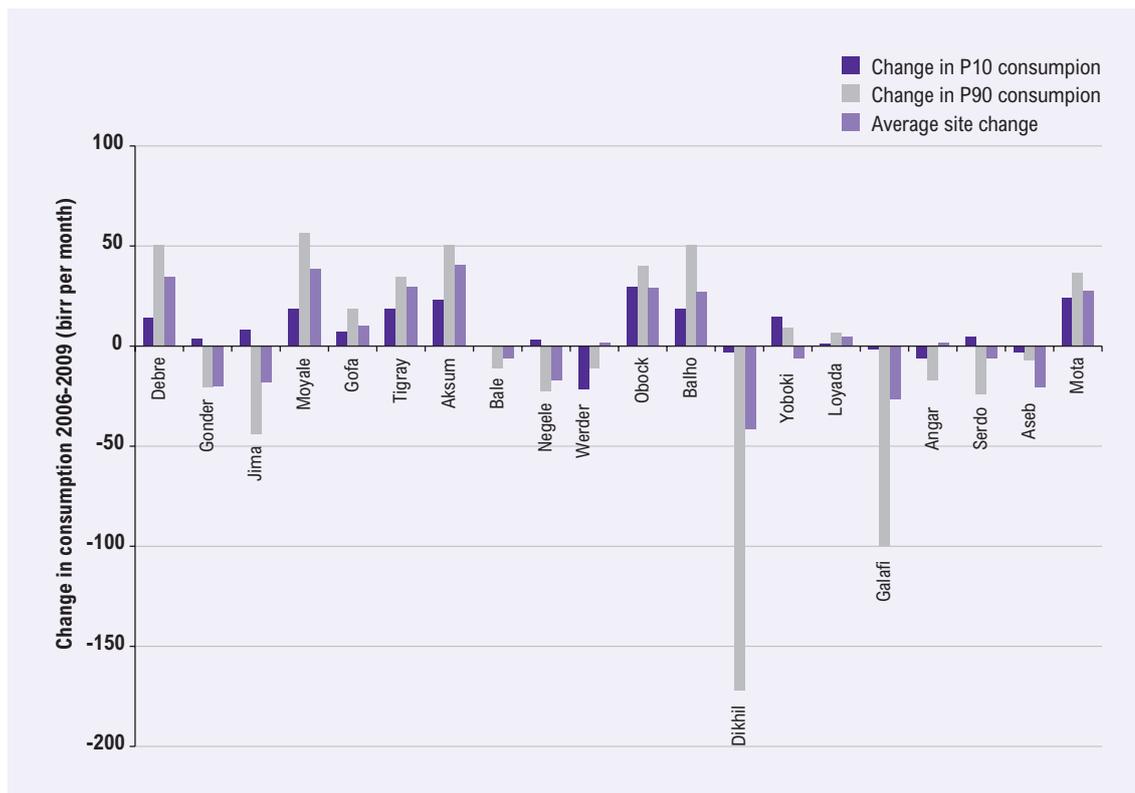
7. Conclusions

This paper has brought together analysis from the first three waves of the Young Lives study, contextualised with figures of the national story in each country. Its purpose is contextualise changes in the communities in which Young Lives children are growing up, relevant for debates around how inclusive growth has been. Future work will aim to build on understandings of community circumstances and change to understand impacts on children.

This short conclusion summarises principal findings from the paper, to draw relevant policy implications. First, the recent context in Young Lives countries is of economic growth, this is a similar pattern to that experienced by many low- and middle-income countries over this period. Separate Young Lives analysis shows improvement in other indicators of human development, service access and living environment, e.g. in school enrolment, access to improved sanitation or water (see Woldehanna et al. 2011; Galab et al. 2011; Escobal et al. 2011; Le Thuc et al. 2011). However, simple comparisons suggest the rate of economic growth is often much higher than the rate of improvement in other indicators. One issue which may undermine the extent to which growth results in fast-improving social indicators is how the proceeds of economic growth are shared. As the world enters a phase where most poor people live in middle-income countries (Sumner 2010), within-country inequalities are becoming a more pressing concern.

Young Lives evidence provides positive evidence both of broadly improving wealth levels, and also of broadly increasing consumption levels. However, there are specific examples of geographic communities where average consumption levels appear to fall between 2006 and 2009, and some examples where wealth levels did not seem to improve very substantially.

Understanding the reasons for these variations in community trajectories will help to inform policy aiming to achieve pro-poor growth and tackle entrenched marginalisation. Analysis shows this is not only an urban/rural story – there are poor urban sites, and also very poor people within urban areas. Strategies likely to prove successful at increasing the extent to which poorer people and poorer communities may share in growth, and therefore the extent to which this may also lead to wide improvements in social indicators, include strengthening services most likely to be of value to poorer households, including primary and preventative health care and basic education including pre-school (see Woodhead et al. 2009); using social protection measures to reduce risks, avoid debt traps and improve incomes for chronically poor households and communities; and investing in mechanisms which can increase the livelihood returns to poorer households.

Although both consumption and wealth levels are increasing, in real terms many gaps between households are also often growing. In Ethiopia we have seen cases of pro-poor change and the broad trend of reducing inequalities, as are also seen in nationally representative data. Within the Young Lives sample some gaps between households seemed to fall, perhaps driven by stronger rural consumption and wealth increases. However, concerns remain over inequality levels, for example, within urban areas. Changes in wealth and consumption levels are not always consistent and there is a narrowing of the gap in wealth levels but widening of the gap in consumption between urban and rural areas, e.g. in Vietnam. Using consumption data there is some evidence in all but Ethiopia of widening disparities between poorer and least poor households within sites between 2006 and 2009.

This analysis is also particularly relevant for discussions around marginalisation for, although there is a general picture of inclusive growth, there are exceptions of sites showing little or no movement and the analysis also shows widening disparities between the top and bottom consumption deciles at a whole sample level, and also typically at a site level. Although on one level we observe quite a progressive trend of sites which start with lower wealth or consumption levels tending to see larger increases across the period, the greater consumption increases were typically experienced by the least poor households within sites. Where we see perhaps the greatest evidence of catch-up between groups relates to urban and rural differences, where there was consistent evidence on the wealth index of closing gaps, and some evidence of larger average consumption increase in rural areas for Ethiopian and Peruvian households. It is also clear that some Young Lives rural sites have higher consumption levels than urban ones, although there are risks in over-interpreting this difference, given the sites were specifically selected for inclusion in 2002. Given that within sites there will also be wide differences, in an urbanising world policymakers ought to be as concerned about poor children in urban environments as about differences between urban and rural areas.

As a final word, with some exceptions growth is feeding through to communities in rising living standards. When well mobilised this is a motor; but large disparities are a hindrance for the MDGs. Our evidence shows that gains exist but are often not pro-poor and therefore gaps tend to be growing between top and bottom. This presents the risk of increasingly entrenched marginalisation. Policy success in delivering pro-poor growth is likely to rest on getting the right mix of economic development, so that consequent consumption growth reaches into rural areas, together with the development of social policies that both help mitigate the sorts of risks which may create poverty traps – loss of livelihoods, assets, drought etc. – and help invest in skills development. Growth is necessary to poverty eradication; ensuring that it is more pro-poor will maximise its potential for achieving the MDG goals.

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