



Chronic Poverty
Research Centre

Background Paper for the Chronic
Poverty Report 2008-09

Agricultural growth, poverty dynamics and markets

Andrew Shepherd

Martin Prowse

What is Chronic Poverty?

The distinguishing feature of chronic poverty is extended duration in absolute poverty.

Therefore, chronically poor people always, or usually, live below a poverty line, which is normally defined in terms of a money indicator (e.g. consumption, income, etc.), but could also be defined in terms of wider or subjective aspects of deprivation.

This is different from the transitorily poor, who move in and out of poverty, or only occasionally fall below the poverty line.



Table of Contents

Summary.....	4
1. Introduction	6
2. Poverty exits and agricultural growth	8
3. Correlates of exiting poverty	13
4. Entries into poverty: risk and vulnerability.....	18
4.1 Entries into poverty: security and access to land.....	19
5. Markets.....	21
5.1 Labour markets.....	21
5.2 Commodity markets.....	22
5.3 Finance markets	23
5.4 Market access and operation – infrastructure and extension	24
5.5 Lagging regions	25
6. Towards a policy narrative.....	26
Bibliography.....	29
Appendix 1.....	35
Appendix 2.....	37

Figures

Figure 1: Vietnam Growth by Sector.....	13
Figure 2: Uganda Growth by Sector	14
Figure 3: India Growth by Sector	15
Figure 4: Nicaragua Growth by Sector	15
Figure 5: Ethiopia Growth by Sector.....	16



Tables

Table 1: Headcount Poverty Figures and Poverty Trends	8
Table 2: Poverty Entries and Exits: Vietnam	9
Table 3: Poverty Entries and Exits: Uganda	10
Table 4: Poverty Entries and Exits: Rural India.....	11
Table 5: Poverty Entries and Exits: Nicaragua.....	11
Table 6: Poverty Entries and Exits: Ethiopia	12
Table 7: Growth, agricultural growth and E2E ratios.....	16
Table 8: World Development Indicator Headcount Poverty Rates	35
Table 9: Households' Perception of Poverty Status in 1994 and 2004	36



Summary

Agricultural growth is a particularly important pathway for addressing the needs of the chronically poor who, as a group, are particularly reliant on agriculture. In summarising key findings on agricultural growth and poverty reduction from country studies commissioned by the Chronic Poverty Research Centre (CPRC), this paper suggests that agricultural growth has been a surprisingly important component of poverty exits, and also finds evidence that agricultural growth helps prevent entries into poverty. In Vietnam especially, and also in Uganda and Ethiopia, agricultural growth has contributed substantially to reduced poverty levels, both directly and indirectly. In India, agricultural growth in itself was not sufficient to increase poverty exits without contingent factors, such as improved access to land and enhanced village-level infrastructure. Similarly, in Nicaragua high agricultural growth rates only appear to have led to poverty exits when associated with changes in occupation and improved access to land.

Whilst the role of agricultural growth in promoting exits is to be expected, the strength of the findings are surprising, in view of the prevailing consensus that poverty is reduced through diversification and migration out of agriculture. It illustrates the benefits of disaggregating the 'poor', and analysing poverty as a dynamic phenomenon.

The country studies that informed this paper also show that agricultural productivity growth is not the only, or even the most critical, factor in exiting poverty in rural areas – further factors include relative prices (especially of food crops), asset inequality, effective public expenditure, and, importantly, the stability of agricultural growth. This finding is noteworthy because, historically, so much emphasis has been placed on productivity growth by itself. The paper describes how the determinants of participation in agricultural growth are likely to be highly context-specific, with correlates (such as higher educational level, access to roads, and location) varying widely. When agricultural growth is low, entries into poverty may outweigh exits. Entries are precipitated by shocks and stresses, some of which impact most severely on the chronically poor who have very limited capacity. For many of the chronically poor, land is a very important aspect of security, and land tenure reforms aimed solely at increasing the flexibility of land markets would act against their interests.

Markets are the critical institution enabling participation in growth. Whilst the chronically poor have low-level engagement with markets, the country studies show that good market access does indeed prevent entries and promote exits. The key factors here are sufficient infrastructure and information, with labour markets needing to offer regular employment, and workers requiring sufficient health and nutrition. *Multiple* high-growth export sectors, agricultural diversification and urban proximity maximises the poverty-reducing effects of commodity markets, and probably also labour markets. Financial markets are key for the chronically poor, for both small-scale producers, but especially for medium-scale agricultural employers. However,



for the chronically poor themselves, credit appears to be a secondary priority compared to savings and insurance schemes. It is suggested that the chronically poor will benefit especially from improved credit to medium-sized farms and firms which will provide stable employment in the agricultural economy. Poverty reduction through market access, especially in lagging regions, can be improved through education, infrastructure, and (demand-driven) extension as a strategy for improved information provision and delivery.

Sustained agricultural growth requires stable and committed public expenditure, not just in agriculture but also in supportive sectors (infrastructure, health, education). The politics of this is difficult. Governments have grown sceptical of public investment in agriculture. Donors' preference for upstream forms of aid, such as budget support and multi-sector assistance, may contribute less to agricultural growth than more conventional, and less favoured project-based lending. A key message is that starting pro-poor agricultural growth is not the major problem in most low income countries – the problem is to stop it from cutting out. To prevent 'stop-go' growth patterns that have a minimal medium to long term effect on poverty reduction, stable and committed investment is required in infrastructure, education, demand-led extension, and wider information provision mechanisms. Measures to counter the variability of rates of agricultural growth are also critical. This will involve investment in irrigation and other infrastructure; but also mechanisms to stabilise prices at national and international levels, again something governments and the international community is reluctant to engage in. Overall, a much more sympathetic *public* policy environment has to be created for agriculture.

Acknowledgements

The research for this Background Paper was made possible by funding from the United States Agency for International Development (USAID) (via BASIS Collaborative Research Support Program at the University of Wisconsin-Madison).

Authors

Andrew Shepherd is Director of the Chronic Poverty Research Centre and Director of Programmes, Rural Policy and Governance Group at the Overseas Development Institute, London

Email: a.shepherd@odi.org.uk

Martin Prowse is a research officer at the Overseas Development Institute, London.

Email: m.prowse@odi.org.uk



1. Introduction

While economic growth may not always lead to a reduction in poverty, many studies continue to find that agricultural growth leads to a large and significant decrease in poverty (Kakwani, 1993; Ravallion and Datt, 1996; Thorbecke and Jung, 1996; Soloaga, 2006). For example, Ravallion and Chen (2004) found that China's dramatic reduction of poverty – from 260 million in 1978 to 97 million in 1999 – was based more on rural rather than urban growth, with agriculture's contribution exceeding that of manufacturing or tertiary sectors. However, just like growth in general, agricultural growth may not necessarily lead to poverty reduction – Pakistan (Dorosh and Malik, 2006) or areas of Gujarat, India, in the 1990s (Krishna *et al*, 2005) are two examples. Within an agricultural growth scenario, entries to poverty may still outweigh those exiting. The challenge is to make agricultural growth as inclusive as possible through addressing both poverty and equity goals (Bhide and Mehta, 2006).

Instead of revisiting the contrasting empirically-based arguments of agricultural 'pessimists' (Ellis, 1998; Ashley and Maxwell, 2001; Bryceson and Jamal, 1997; Bryceson, 2000; Rigg, 2006) with those of the more theoretically-driven agricultural 'optimists' (Byerlee *et al*, 2005; Kydd *et al*, 2004, Dorward *et al*, 2004), this paper summarises key findings on agricultural growth and poverty entries and exits from country studies commissioned by the Chronic Poverty Research Centre (CPRC) in anticipation of the 2008 Second Chronic Poverty Report (CPR2). These country studies on economic growth and chronic poverty, with particular reference to agriculture, have been supported by USAID through BASIS (University of Wisconsin) and the Austrian Development Agency (through the Vienna Institute of Development Co-operation). This paper is an early attempt at synthesising a set of papers analysing *panel data* in Ethiopia (Dercon), India (Bhide and Mehta), Nicaragua (Wiggins), Uganda (Ssewanyana), and Vietnam (Nguyen Than); and a comparative study by Paul Mosley and colleagues (Ethiopia, Uganda, Zimbabwe). Policy notes analysing policy responses in Vietnam, Ethiopia and India, where the data papers included little by way of policy analysis, were also prepared by Lidia Cabral. In addition to analysing how agricultural growth contributes to reducing chronic poverty, the country papers have attempted to focus on three markets whose performance is critical to finding routes out of poverty: labour, commodity and finance.¹

In poverty discourse there is often a lack of clarity about terminology and concepts. Here we focus mainly on chronic poverty. The distinguishing feature of chronic poverty is extended duration in absolute poverty. Therefore, chronically poor people always or usually live below a poverty line, which is normally defined in terms of a monetary indicator (e.g. consumption, income), but could also be defined in terms of wider or subjective aspects of deprivation. The experience of the chronically poor differs from the transitorily poor, who move in and out of poverty or only occasionally

¹ A parallel study on urban growth is also looking at housing markets.



fall below the poverty line. The study of poverty dynamics – tracking individuals, households or other groupings over time – through panel data analysis and/or life histories aims to highlight the processes of the economic, social and political interactions that lurk behind headline poverty figures. It is these processes that policy must engage with to make a difference.

The paper is in three sections. The first section examines the linkages between agricultural growth and poverty exits, correlates of exiting and entering poverty, and risk and vulnerability/security, with a focus on land. The second section discusses the country-based findings on labour, commodity and finance markets. The third section weaves a policy narrative. Where appropriate, data from the country studies has been supplemented by wider references and recent relevant research.



2. Poverty exits and agricultural growth

The impact of growth on income poverty is principally transmitted via prices (higher producer prices, lower food prices, higher wages), and varies from one place and period to another depending on wider factors. Price changes linked with market liberalisation and devaluation can improve the rural terms of trade (Dercon *et al*, 2006), but will only benefit the poor if prices of food and essential items are kept affordable (Gaiha, 1989,1995;).

We begin by outlining the headcount poverty figures and poverty trends for the five countries where panel data was analysed. Table 1 shows impressive reductions in the headcount poverty figure in Vietnam (39%) and Uganda (22%) through the 1990s. India and Ethiopia also achieved considerable improvements between 1994 and 2000, with the headcount poverty rate decreasing by 10% and 12%, respectively. Nicaragua showed a slower aggregate rate of headcount poverty reduction (4.5%) between 1993 and 2001, but rural areas registered a double digit reduction (11.8%), compared to the much more sluggish urban rate of 3.2%.

Table 1: Headcount Poverty Figures and Poverty Trends²

		Headcount poverty			Poverty Trends	
Uganda	1992/93	1999/00			1992/93 – 1999/00	
Headcount poverty	55.7	33.8			- 21.9%	
Nicaragua	1993	1998	2001	1993 – 2001		
Headcount poverty	50.3	47.9	45.8	- 4.5%		
Urban	31.9	30.5	28.7	- 3.2%		
Rural	76.1	68.5	64.3	- 11.8%		
Vietnam	1993	1998	2002	2004	1993 – 2004	
Headcount poverty	58.1	37.4	28.9	19.5	- 38.6%	
India	1993-94	1999-00			1993/94 – 1999/00	
Headcount poverty	36.1	26.1			- 10%	
Ethiopia	1994	1995	1997	1999	2004	1994 - 2004
Headcount poverty	48	55	33	36	36	- 12%

Poverty headcount figures at national-level poverty line. For example, in Ethiopia a cost-of-basic-needs line is calculated at 50 birr per capita in 1994 prices (see Dercon *et al* 2006).

Sources: Uganda - Sseyewana *et al* (2006) calculations based on UNHS I and IHS. Nicaragua - Wiggins (2006) calculations based on Nicaragua LSMS 1993, 1998, 2001. Vietnam - Thang *et al* (2006) based on VHLSS 1993, 1998, 2002, 2004. India - Bhide and Mehta (2006) based on various national-level data sources. Ethiopia - Dercon *et al* (2006) calculations from ERHS.

² For Uganda and Vietnam, these poverty trend figures cover a longer time period than those available from the World Development Indicators (WDI). The figures for Ethiopia, showing a 12% decline in the headcount poverty figure between 1994 and 2004, contrast strongly with WDI data that show a poverty rate of 44.2% in 2000. The WDI figures, and a summary of the evidence that Dercon *et al* (2006) cite to support their argument, is explained in Appendix 1.



In contrast to poverty trends using headcount poverty figures, panel data allows us to examine who exited and entered poverty, and discover correlates of such trajectories. The analysis of panel data that informs this paper suggests that agriculture has been a surprisingly important ingredient in poverty exits in some contexts at least.³ Whilst theory would lead one to expect this result since barriers to entry are low in both small-scale farming and agricultural labour, the finding is surprising given the emphasis in recent years on diversification and migration as routes out of poverty.⁴

Agriculture represents a dynamic way out of poverty in Vietnam where the impressive reduction in headcount poverty of 38 percent between 1993 and 2004 was accompanied by an equally impressive reduction in chronic poverty from 29 percent in 1993-98 to 14 percent in 2002-04 (see Table 2). With several fast growing sub-sectors including coffee, livestock, poultry, and aquaculture, strong engagement with exports, and relatively high fertiliser and insecticide use, agriculture was found to be *twice as important* for exiting poverty as non-farm occupations (Thang *et al*, 2006).

Table 2: Poverty Entries and Exits: Vietnam

Vietnam - Poverty Entries and Exits 1993 - 1998 / 2002 – 2004				
1993 - 1998		2002 – 2004		
	All households	All households	Rural	Urban
Never poor	39.1	68.6	62.2	91.9
Exited Poverty	27.4	12.1	14.4	3.9
Entered into poverty	4.8	4.9	5.8	1.7
Chronically poor	28.7	14.4	17.7	2.4
Total percentage	100	100	100	100
Number of households		4,008	3,146	862

Poverty threshold: National-level poverty line

Source: Thang *et al* (2006) based on VHLSS 1993, 1998, 2002, 2004

In Uganda, the decrease in the headcount poverty figure between 1992/93 and 1999/00 was based on 31 percent of households exiting poverty compared to only 13 percent entering (see Table 3).⁵ These exits were in a large part based on higher agricultural compared to non-agricultural income growth during the 1990s: agriculture's contribution to total household income increasing, on average, from fifteen percent in 1992 to over fifty percent in 2000 (Ssewanyana, 2006). Again, the

³ Moreover, the contribution of agriculture may well be under-stated. Agricultural variables tend to be marginalised within consumption expenditure surveys on which conventional studies of the determinants of poverty are based, while the importance of education and demographics for poverty reduction are emphasised (Walker *et al*, 2006).

⁴ On diversification see Ellis, 2001; Start, 2001; Haggblade *et al*, 2002. On migration and poverty reduction see DfID, 2004. For an argument that links both see Sen, 2003.

⁵ There is a small discrepancy between the headcount poverty figure based on the Uganda UNHS I and HIS, and the entry and exit figures based just on households in the panel (see Ssewanyana, 2006).



growth of multiple agricultural exports (coffee, fish, cut flowers, and maize) and the increased diversification of export earnings, led to substantial poverty exits in the 1990s, predominantly through higher producer prices (see Deininger and Okidi, 2003; Okidi *et al*, 2005).⁶ Interestingly, agricultural wage employment provided an even greater chance of escaping poverty in Uganda than farm production, thus highlighting the importance of labour market performance for the chronically poor. The role of agriculture in Uganda should not, though, be exaggerated – all types of household were diversifying their livelihood strategies in the 1990s, although chronically poor households to a lesser extent than others (Ssewanyana, 2006).

Table 3: Poverty Entries and Exits: Uganda

Uganda - Poverty Entries and Exits 1992 – 2000			
	All households	Rural	Urban
Never poor	37.1	35.5	60.3
Exited Poverty	31.3	31.8	25.1
Entered into poverty	13.1	13.5	7.7
Chronically poor	18.4	19.2	6.9
Total percentage	100	100	100
Number of households	1309	1117	192

Poverty threshold: National-level poverty line
 Source: Sseyewana *et al* (2006)

Diversification *outside* of agriculture may well be limited for the chronically poor. In most low-income country contexts the chronically poor overwhelmingly rely on agriculture – either agricultural labouring, small-scale production or, more usually, a combination. This remains the case where agricultural growth has had a high elasticity of poverty reduction – for example Vietnam and Uganda – suggesting that there are serious constraints in getting out of agriculture for many farmers and farm workers. A lack of complementarity between non-farm and farm activities often appears to preclude diversification by the poor out of farm-based activities (Suleiman *et al*, 2006).

In the Indian analysis of panel data, which covers 1970-1998, the transiently poor have not been broken down into exits and entries (see Table 4). However, even with a breakdown into Chronic, Transiently and Never categories it appears that poverty has been stickier than in Uganda and Vietnam.⁷ The number of chronically poor households remained similar (around one quarter) between 1970-81 and 1981-98. Moreover, there was a slight decrease in the number of households that were never poor within 1981-98 compared to 1970-81. Such data suggests a lack of sustained poverty exits and a low level of mobility for many households. However, the decade-long gap between waves in the panel survey gives us no indication if chronically poor

⁶ Although these lower poverty levels have not been sustained in recent years.

⁷ Although the different time periods over which data is available mean that the datasets are not comparable.



households exited poverty for a short period of time (see Table 6 below on Ethiopia for increased resolution of poverty dynamics). The stickiness of poverty in India is supported by Bhide and Mehta's (2006) finding that an increase in agricultural output by itself was *not* associated with poverty exits.⁸ Instead, poverty exits through agriculture depended on a series of corollary factors: changes in assets such as improving access to land, livestock, enhanced village level infrastructure, including irrigation; and access to dynamic more markets from being located close to urban areas.

Table 4: Poverty Entries and Exits: Rural India

Rural India - Poverty Entries and Exits 1970 – 1998			
	1970 - 81	1981 - 98	1970 – 98
Never poor	38.5	37.1	35.7
Transiently poor	36.2	38.6	40.5
Chronically poor	25.3	24.3	24.1
Total percentage	100	100	100
Number of households	3139	3996	2315

Poverty threshold: National-level poverty line
 Source: Bhide and Mehta (2006)

Of the five countries, Nicaragua showed the least impressive overall reduction in headcount poverty (4.5%) through the 1990s, although rural poverty decreased to a much greater extent than urban poverty (see Table 1). The trend between 1993 and 2001 hides a slight slowdown in poverty between 1998 and 2001, as illustrated by the low exit-to-entry (E2E) ratio of 1.4 during this time period (see Table 7). Due, in part, to the short time period for the panel, Nicaragua displays the highest chronic poverty figure of the five countries at twenty seven percent.

In a similar fashion to the India findings, the panel data shows that contingent factors were essential for poverty exits, and were principally associated with changes in occupation and access to land. Wiggins (2006) argues that the highly skewed distribution of land ownership means that own-farm strategies offer little to the chronically poor in Nicaragua: farming provided an exit route only when associated with sufficiently large asset holdings or with skilled wage labouring. In the Nicaraguan case, non- or off-farm employment or self-employment appears to provide more hope than farm-based strategies, especially where skilled labour is involved (Davis and Stampini, 2002).

Table 5: Poverty Entries and Exits: Nicaragua

Nicaragua - Poverty Entries and Exits 1998 – 2001			
	All households	Rural	Urban
Never poor	52	30	70

⁸ However, this indicator was measured at district rather than household level.



Exited Poverty	13	17	10
Entered into poverty	9	11	7
Chronically poor	27	43	14
Total percentage	100	100	100
Number of households	2800	1273	1527

Poverty threshold: National-level poverty line
 Source: Davis and Stampini (2002)

Turning to Ethiopia, Dercon *et al's* (2006) paper shows that in the decade up to 2004 the headcount poverty figure in the fifteen communities included in the study fell by twelve percent (see Appendix 1 for a discussion), and that the gradual improvement of road infrastructure and, to a lesser degree, extension programmes, contributed to poverty exits. The Ethiopian study is particularly illuminating because of the analysis of poverty dynamics over five waves (see Table 8). In offering a greater resolution of poverty dynamics, Dercon *et al* (2006) show that only seven percent of households remained poor in all five waves. The analysis shows that over seventy percent of the chronically poor moved over the poverty line at least once during the decade, but were unable to sustain such improvements. Acknowledging that some of this dynamism is due to the high proportion of food in the consumption basket and the short time recall used in the survey, two wider inferences can be made from such a finding: firstly, it appears that many of the chronically poor experience some upturns in fortune but may be unable to capitalise on positive changes; and secondly, that within the category of the chronically poor, there is a residual group who – due perhaps to disability or discrimination – are unable to exit poverty at all.

Table 6: Poverty Entries and Exits: Ethiopia

Ethiopia - Poverty Entries and Exits 2002 – 2004			
1994 - 2004		Poverty episodes 1994 - 2004 based on five rounds	
	All households	Frequency of poverty	All households
Never poor	35	Never poor	18
Exited Poverty	27	Poor once	22
Entered into poverty	13	Poor in 2/5 rounds	23
Chronically poor	24	Poor in 3/5 rounds	16
Total percentage	100	Poor in 4/5 rounds	14
		Chronically poor	7

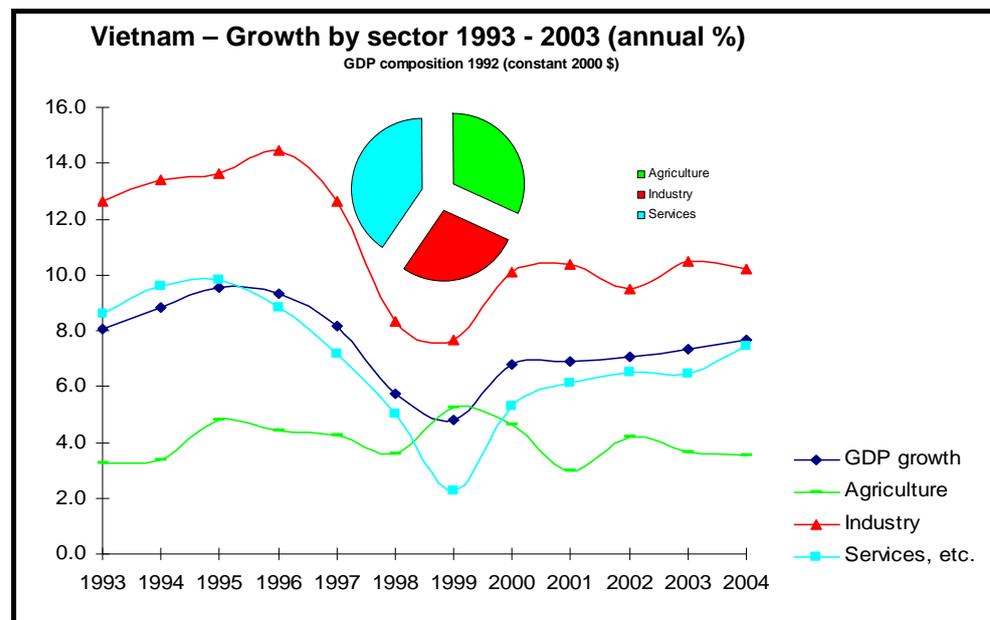
Poverty threshold: Cost-of-basic-needs line is calculated at 50 birr per capita in 1994 prices
 Source: Dercon *et al* (2006)



3. Correlates of exiting poverty

These country studies show that poverty exits are linked to a variety of correlates in different contexts – acquisition of assets (especially land and livestock), equipment, irrigation, use of modern varieties and fertiliser, access to roads, extension, health services, electricity, clean water, higher educational level, smaller family size, location (e.g. in higher/more reliable rainfall region; high population density areas; or closer to urban areas), remittances, involvement in fast growing (export) sectors, and participation in non-agricultural wage labor and non-agricultural businesses. This suggests that the determinants of participation in agricultural growth are likely to be highly context-specific.⁹ There is a growing chorus that whilst growth remains important it is the *quality* of the growth that is critical, and the following decomposition of growth offers some tentative support for such an argument.

Figure 1: Vietnam Growth by Sector



Eyeballing the decomposition of growth graphs for 1993-2004 shows how *stable* four percent agricultural growth in Vietnam appears to have underpinned faster industrial and service sector expansion, and, as we have seen, contributed to substantial poverty reduction. The Ugandan decomposition is relatively similar, but despite a slightly higher rate of agricultural growth (4.3%) there was greater variation, and with declining rates of growth in industrial and service sectors in recent years, poverty rates have increased again. The potential variability of rain-fed agriculture is clearly apparent in the Indian case, leading to volatile agricultural growth rates (see standard

⁹ Of course household surveys typically report only on certain measurable factors; there may be others to do with aspirations and attitudes, social networks and relationships, which are not reported, and so do not feature yet in this analysis.



deviation figure) and a mean of 2.3 percent growth contributing to slower poverty reduction than Vietnam and Uganda. The Nicaraguan decomposition is also interesting, for it shows the highest average rate of agricultural growth (4.7%) but with less of an effect on poverty levels than the preceding countries. The graph shows high volatility, not only in agriculture, but also in industry, possibly indicating lagging from primary to secondary industries, and the impact of coffee price fluctuations. The Ethiopian decomposition shows even greater volatility in agriculture, with severe shocks clearly visible in 1998 and 2003.

Figure 2: Uganda Growth by Sector

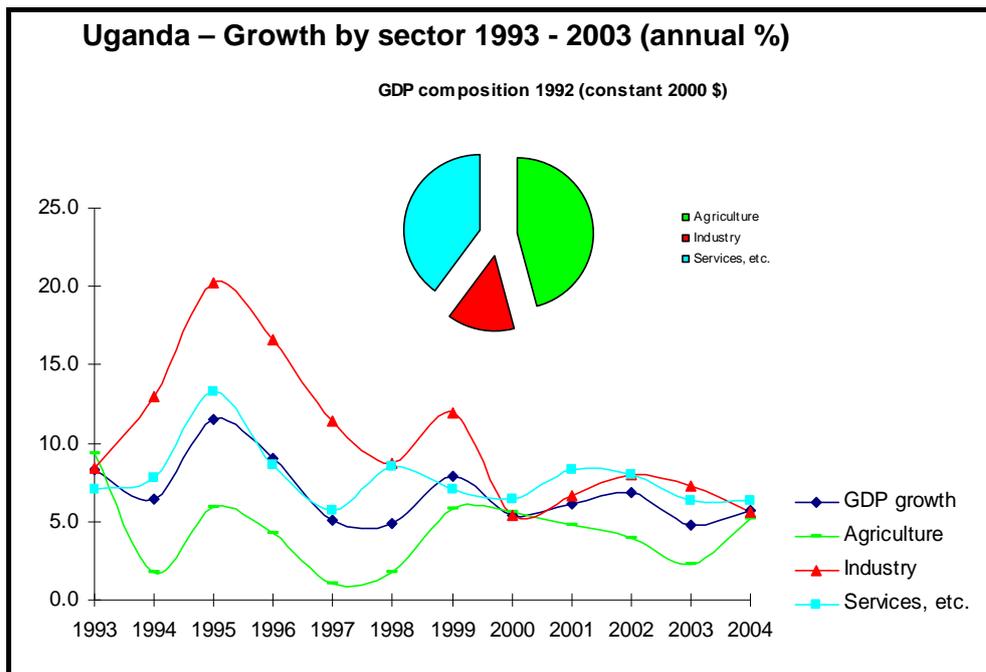




Figure 3: India Growth by Sector

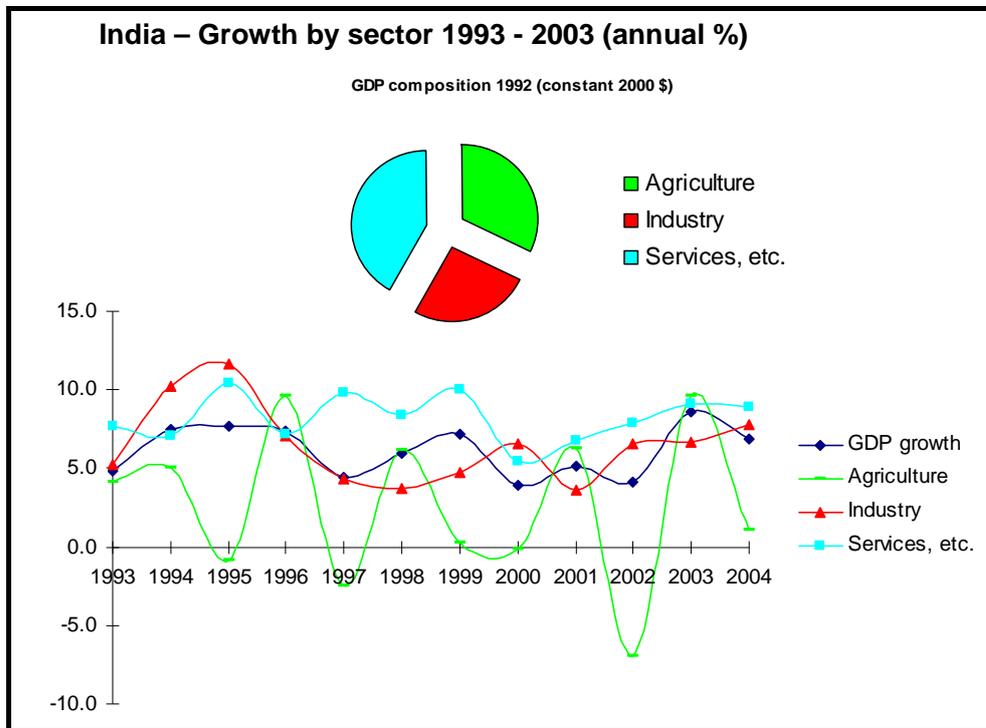


Figure 4: Nicaragua Growth by Sector

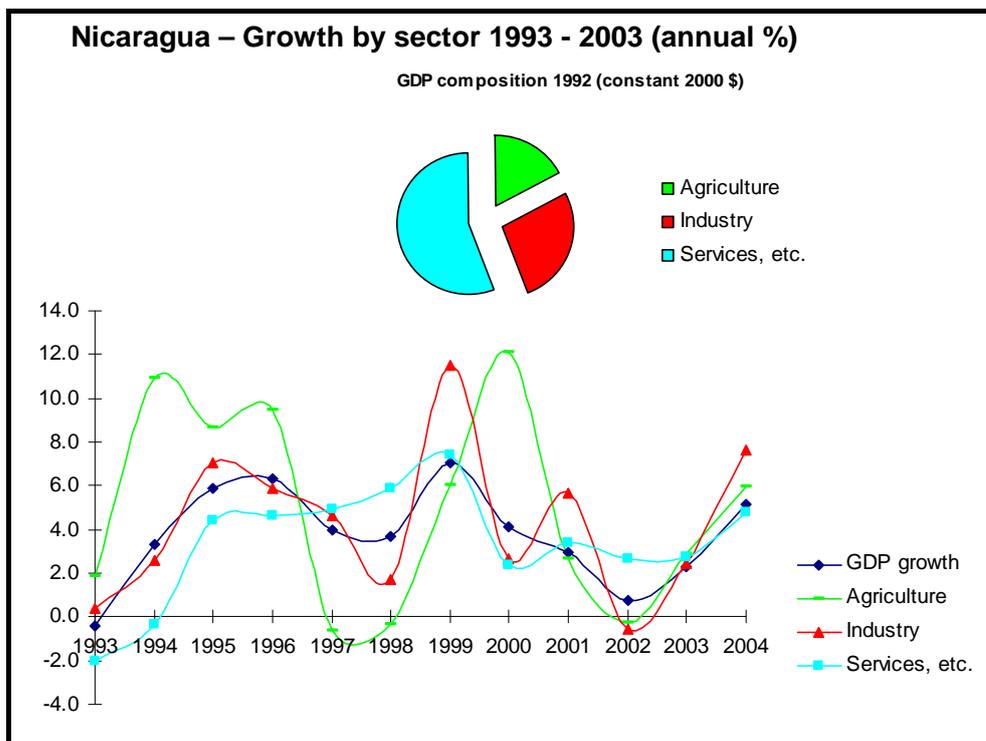




Figure 5: Ethiopia Growth by Sector

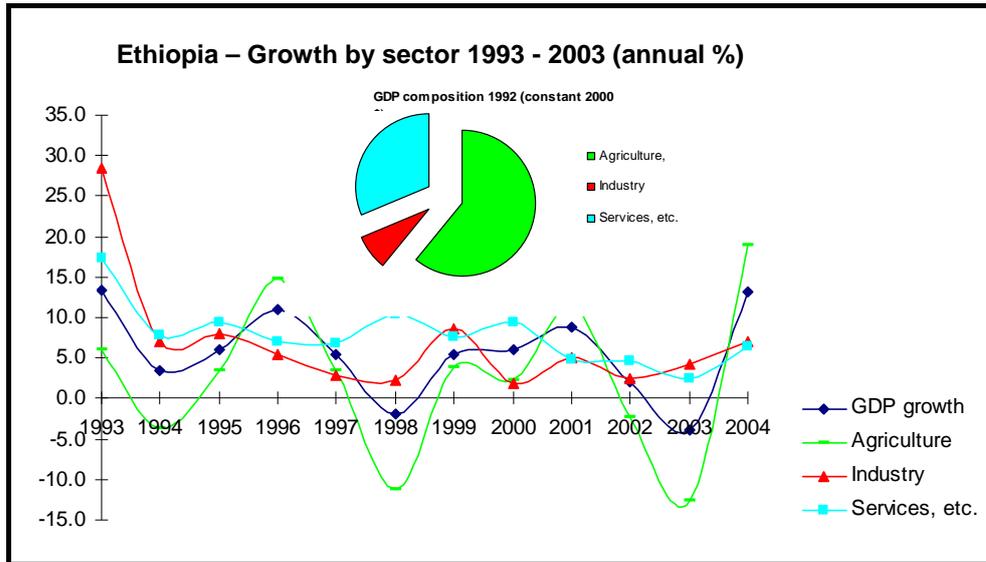


Table 7: Growth, agricultural growth and E2E ratios

	Mean	Median	Std Dev	E2E Ratio			
				1993 – 1998	2002 - 2004		
Vietnam	1993 - 2004			Total	Total	Rural	Urban
GDP growth	7.5	7.5	1.4	5.7	2.5	2.5	2.3
Agricultural growth	4	3.9	0.7				
Uganda	1993 - 2004			Total	Rural	Urban	
GDP growth	6.8	6.3	2	2.4	2.4	3.3	
Agricultural growth	4.3	4.5	2.3				
India				n/a			
GDP growth	6.1	6.4	1.6				
Agricultural growth	2.7	2.6	5				
Nicaragua	1993 – 2004			Total	Rural	Urban	
GDP growth	3.8	3.8	2.2	1.4	1.5	1.4	
Agricultural growth	4.9	4.4	4.6				
Ethiopia	1993 – 2004			Total	1994 - 2004		
GDP growth	5.7	5.7	5.4	2.1			
Agricultural growth	2.9	3.4	9.5				

Source: World Development Indicators

Source: Country papers



Table 7 shows descriptive statistics for GDP growth, agricultural growth and the E2E ratio. It shows that, in addition to the importance of substantial agricultural growth rates, the countries – Vietnam and Uganda – with *the most stable rates of agricultural growth (using the standard deviation figure) achieved the highest number of exits compared to entries*. Such an interpretation should, however, be tempered – Ethiopia, for example, had a very volatile period of agricultural growth (with a standard deviation of 9.5) but still, according to Dercon *et al* (2006) had a E2R ratio only slightly less than Uganda's.

Whilst the country studies show the surprisingly important role of agricultural growth in reducing chronic poverty, there are few indications of 'transformative' growth where the shares of sectors change, including a reduced share for agriculture, and where there is net inter-sectoral occupational mobility. Vietnam was the only example, where industrial and service sector expansion was underpinned by a high rate of agricultural growth. In contrast, the Ethiopia study (Dercon *et al*, 2006) found that despite moderate agricultural growth and substantial poverty reduction, there was little sign of inter-sectoral change, or even intra-agricultural dynamism, to suggest a shift into higher return activities.

What is not clear yet from the country studies is how far above the poverty line agriculturally-derived exits take people, and therefore whether these exits are likely to be temporary or permanent. Can agricultural growth allow many households to save sufficiently to cross a threshold into high-return activities? Carter and Barrett (2006) argue that in the context of imperfect financial markets, poor households' sole approach to accumulation would be a savings strategy that limits consumption in the short and medium term – a strategy that chronically poor households are unlikely to pursue, with short-term consumption needs therefore contributing to long-term poverty traps. However, if households are able to stay above the poverty line for over two years, recent evidence suggests that, in some contexts, the likelihood of re-entering poverty is substantially reduced (Glauben *et al*, 2006).

Sustaining poverty exits may well be linked to the diversification of livelihood strategies. Insights from trajectories of accumulation highlight how once out of poverty, households develop more diversified asset and activity portfolios: substantial human capital formation has strong synergies with social and physical capitals in Central America (Attanasio and Szekely, 1999); livelihood diversification into non-farm income sources is strongly correlated with (but should not necessarily be seen as the cause of) accumulation in India and Uganda (Krishna, 2004; Ellis and Freeman, 2004), as is 'straddling' urban employment and rural production in Ghana and Uganda (see Whitehead, 2006; and Krishna *et al*, 2006; respectively).



4. Entries into poverty: risk and vulnerability

Poverty is dynamic: in many situations large numbers of households cross the poverty line, both exiting and entering. Where growth, and agricultural growth in particular, is low and volatile, entries may be almost as great as exits – as demonstrated in Nicaragua from 1998 to 2001 (Wiggins, 2006). Shocks are universal, although their incidence, duration and severity vary. Stresses are certainly universal, though their particular form is context specific. Recent retrospective studies of poverty dynamics highlight how descents into poverty are frequently precipitated by three (linked) factors: health and health-related costs; indebtedness; and expenses related to social obligations or household ‘stresses’ (Krishna, 2004; Krishna *et al*, 2006). Further studies in the South Asian context, again highlight the importance of health status in poverty entry (Sen, 2004; Begum and Sen, 2004; Hulme, 2003).

In the panel data studies, the contribution of shocks and stresses to poverty entry varied: in Ethiopia, Dercon *et al* (2006) found that, after rainfall variation, death and illness in the household were the most important shocks; in Uganda, increasing household size was an important factor in entry, as was age of household head; whilst in India, Bhide and Mehta (2006) found that increasing household size and growing proportion of children were associated with severe poverty.

What differentiates exiters from others is how they deal with shocks and stresses (their resilience), as well as the intensity and duration of the shock. This argument is consistent with a growing body of evidence on building household capacity and capability to cope with shocks, as opposed to focussing on the shocks themselves (Moser, 2006; Carter and Barrett, 2006; Barrett *et al* 2006; Prowse, 2003). The importance of strategic assets is clear in the Uganda and Nicaragua studies, where rural households entering poverty had very low levels of livestock ownership vis-à-vis households staying non-poor (Ssewanyana, 2006; Wiggins, 2006).

Chronically poor households tend to have very limited capacity – a long duration of poverty depletes physical assets, saps human capital, and can drain social networks and relationships. Social exclusion can lead to severe consequences. Santos and Barrett (2006) show, in their study of Southern Ethiopia, how ‘social invisibility’ excludes the chronically poor from informal horizontal transfers as they are already enmeshed in a poverty trap. Bird and Shepherd (2003) made the same argument with respect to the poorest in rural Zimbabwe.

What appears to matter most is the sequencing of shocks and stresses (Suleiman *et al*, 2006), with a combination potentially leading to persistent or permanent welfare effects (Dercon, 2006, Hoddinott *et al*, 2006). Whilst unpredictable shocks are important, easily predictable ‘stresses’ (such as a low producer/consumer ratio, marriage expenditures) are also key precipitating factors in creating poverty and maintaining it. As such stresses can be predicted, development policy and social



protection measures may be able to mitigate these risks relatively easily vis-à-vis shocks such as natural hazards or exchange rate devaluations (Moser, 2006; Farrington, Slater *et al*, 2006).

4.1 Entries into poverty: security and access to land

Within a situation of duress, land is typically a very important aspect of security. Access to natural resources still provides basic livelihood security for many – not least because agriculture is an occupation to return to when the going gets rough. The loss of access to land is frequently correlated with entry into poverty, or chronic poverty.

Where access to land is predominantly mediated through communal tenure systems land markets are typically thin. There is a hue and cry from growth advocates for more flexible land markets. In a number of countries access to more land (i.e. through market, inheritance, reform) is a clear correlate of exit, and vice versa. However, land also provides security for poor people in an insecure world. If we take the message of the first Chronic Poverty Report seriously – to prioritise ‘security’ over ‘opportunity’ – we would argue against land tenure reforms if the aim of the reform was simply to increase the flexibility of this market.¹⁰ Evidence from the panel data supports this. For example, Wiggins (2006) highlights how in Nicaragua land markets are characterised by a high number of transactions, but function imperfectly by not allocating land to the most productive farmers – small-scale producers. Wiggins suggests four potential reasons for this market failure: firstly, that small-holders do not demand more land because of risk aversion; secondly, that the land market is interlocked with wider markets and social relations through a high degree of patron-client lending; thirdly, a lack of liquidity; and fourthly, that buyers of land may not be using it for productive purposes but for leisure, tax relief, speculation or money-laundering. Clearly, there are structural and social factors inhibiting the operation of the land market – factors which increasing flexibility through opening up markets would not necessarily resolve.

Of course, arguing for increasing the security of the chronically poor’s land rights does not hold in all contexts. For example, Devereux has argued that in Ethiopia access to land is too secure (all sales, mortgaging or exchange of land is illegal), and what is needed is less land security to foster growth. Dercon’s data (2006), on the other hand, suggests that many farmers in Ethiopia are still insecure about the

¹⁰ Such a ‘land security’ argument conflicts with the position of many agricultural pessimists, such as Rigg (2006), who argue that there is a need to overcome the belief in a ‘yeoman farmer fallacy’ and to accept – following Begum and Sen’s (2003) work on rickshaw pullers in Dhaka – that small-holder agriculture is, in many cases, an ‘unsustainable livelihood’.



majority of the land they cultivate, reducing investment in perennial crops like coffee and chat, contributing to inefficiency and poverty. A key question in many settings is the tension between formalised land tenure systems at the national or regional level, and emergent 'vernacular' land markets at the local level (see Chimhowu and Woodhouse, 2006). However, an argument for augmenting the 'security' of the chronically poor's access to land does not necessarily provide support for redistributive land reform (see Box 1).

Box 1: Land Reform in Southern Africa

Chimhowu (2006) analyses the process of land reform in South Africa, Zimbabwe and Namibia and examines how this politically-charged issue is conceptualised, if it has contributed to poverty reduction, and the extent to which political rhetoric around the subject has been matched by action.

Starting with the widely-cited role of land reform in stimulating growth in South Korea, Taiwan and China, Chimhowu highlights how land tenure reform is widely credited with increasing security, investment and productivity, and poverty reduction. Chimhowu contrasts this 'agricultural determinism school', which sees land as a vital asset for households to escape poverty, with a 'possibilism' perspective which sees land reform as playing a permissive, but not sufficient, role in poverty reduction.

In his three country study, Chimhowu makes four main arguments. Firstly, that despite the strong political rhetoric around land reform, the governments in question have not in recent years allocated sufficient resources for increasing the poor's access to land, or to support those given land. (The early resettlements in Zimbabwe were, by contrast, well supported with complementary measures.) Secondly, that the quality of land and lack of support services has trapped many beneficiaries of land reform in poverty. Thirdly, that in all three countries recent land reform has been captured by political and bureaucratic elite groups. Fourthly, that land reform processes do not engage sufficiently with reforming communal forms of land tenure, despite the increasing importance of bottom-up 'vernacular' land markets. Arguments for and against redistributive or tenure-based land reform should be based on context specificities – not theoretical assumptions, such as small-farm efficiency, which may be time and space dependent.



5. Markets

In some cases the chronically poor are not very engaged in markets. In Nicaragua, for example, the chronically poor bought little of their food requirements, and only engaged in formal housing and financial markets to a limited extent (Wiggins, 2006). Extreme cases may see a withdrawal into a subsistence and exchange economy. However, in most cases the chronically poor engage substantially as casual labourers, small-scale (deficit) producers, and purchasers of food and other items. Sometimes they are also borrowers, but more often in informal, rather than formal, financial markets.

Good market access can be very important for preventing entries to poverty, as much as for facilitating exits – a clear example being the operation of staple food-crop markets, as recently illustrated in Niger and Malawi (on the former see USAID, 2005; ODD, 2005; Clay, 2005; on the latter see Devereux, 2002; Stevens *et al*, 2005). On the other hand, insufficient market access keeps people poor. Both sets of dynamics are, of course, related to infrastructure, access to information, and proximity to urban areas. Overall, the surveys used for this work have provided us with limited information on people's involvement with markets. Further work on poverty dynamics and such markets would no doubt prove beneficial.¹¹

5.1 Labour markets

Regular agricultural wage employment can certainly provide exit routes from poverty.¹² In Ethiopia and especially Uganda labour market expansion substantially contributed to poverty reduction – in contrast to Zimbabwe where a sharp labour market contraction plunged many into poverty (Suleiman *et al*, 2006; Mosley *et al*, 2006). The ability to labour more is an important correlate of exit. Whether or not agricultural wage labourers can exit poverty may depend on: the regularity of work; how well provided a location is in terms of infrastructure, which exercises a substantial influence on wage rates (Bhalla *et al*, 2004); and their (the labourer's) health, education and nutrition status (including their access to cheap food) (Suleiman *et al*, 2006); and also on their ability (or scope) to bargain for wages (Mosley, 2004).

Small-scale farming often generates little wage employment, and whilst most of the panel data studies did not speak to this issue, it can be hypothesised that the

¹¹ See Appendix 1 for the terms of reference given to background paper authors.

¹² Within the rural development literature there is a fair degree of confusion in how the categories of off-farm and non-farm income sources are defined (see Ellis, 1998). In this paper agricultural wage employment refers to regular or 'permanent' employment, in contrast to temporary off-farm labour contracts paid for in cash or in kind.



presence of at least medium-sized, labour-employing farms in the agricultural structure is likely to be important for widespread poverty exits based on agricultural labour. Credit availability is particularly critical for medium-scale enterprises (Wiggins, 2006), as is sufficient infrastructure (main roads and electricity) and, for generating employment, labour-intensive crops, such as horticulture, herbs and spices, and modern varieties of food-crops (Mosley *et al*, 2006).

Globalisation offers both small-holder and medium-scale farms numerous opportunities and threats (Pingali, 2006; Von Braun, 2006). Opportunities – such as new (niche) markets (such as biofuels) and productivity improvements – may be facilitated through contract farming arrangements and agribusiness development, potentially pulling-in adjacent ‘outgrowers’. On the other hand, increased competition from agricultural imports, phyto-sanitary requirements and trade barriers in the North, and exacting requirements from retailers, may limit any benefits of increased global economic integration (Pingali, 2006; Roumasset, 2006). The impact of globalisation on generating farm-based employment will not be evenly distributed across farm sizes or countries, and it is to be expected that employment generated on medium-sized farms will tend not to be in remote rural areas or chronically deprived countries (Pingali, 2006).

5.2 Commodity markets

There are several examples of how fast growth and price improvements have facilitated poverty exits. Engagement in fast growth sub-sectors, export sectors and use of fertiliser helped explain 1990s poverty exits in Vietnam. Returns to enterprises were also equalised over the economy – suggesting that markets were working efficiently. Favourable world coffee prices and liberalisation explained higher agricultural incomes in Uganda in the 1990s. However, even within one country, a crop could be significant for poverty exits in one region and not in another: rice in Vietnam was significant for ethnic minorities, but not for Kinh-Hoa.

In addition to fast growth and higher prices, diversification within agriculture also helps, and extension advice can be a spur to linking producers with new markets. The importance of being near a sizeable urban centre – a consistent finding of the Indian surveys (Bhide and Mehta, 2006) suggests that being able to sell products into relatively dynamic markets makes a big difference; but the poverty reducing effect may also be more to do with wage labouring and beneficial migration opportunities. Proximity and access to urban centres can, on the other hand, bring costs as well as benefits - cheaper and higher quality goods can undermine agricultural or non-agricultural activities (Berg and Kumbi, 2006).



5.3 Finance markets

Poor households generally have very low levels of access to institutional finance of any sort, including micro-finance. The banking system is physically inaccessible for most. This access continues to decline in some countries (e.g. Nicaragua), or has patchy and inconsistent coverage (e.g. Malawi). Demand for credit is often unmet. Mosley *et al* (2006) argue that the failure of Green Revolution technology transfer in the early 1990s in Zimbabwe and South Africa was intimately related to the contraction of small-holder credit and extension at this time. In the context of failures in formal credit, small-holders turn to expensive informal channels for liquidity, thus damaging profitability, net margins and savings. In Uganda, Ssewayana (2006) found that family and friends are the major source of credit, with only four percent of households receiving a bank loan. Even where the financial sector is better developed, only a minority of small-holders receive credit – in Nicaragua only ten percent of households access credit, mainly through NGO micro-credit schemes.

Where working capital is needed to finance agricultural inputs (e.g. fertiliser), and is not adequately internally generated, small-holder-based agricultural growth will be severely constrained, unless such inputs are provided against crop output or subsidised.¹³ However, the indications are that very poor people appreciate opportunities to save and be insured more than access to credit, which is often perceived to 'kill'. In Nicaragua, while credit given to the top income decile was associated with a rise in income, credit reaching the poor often worsens their income (Wiggins, 2006). The poor use their loans for consumption and end up more indebted (see also Ssewayana, 2006). What is needed is a more competitive market for consumption loans and insurance services; with opportunities to save through farmers' organisations, savings groups and insurance premia (Binswanger, 2006).

Where financial services are really critical is to facilitate enterprises that generate employment – possibly on medium-sized farms and firms. This is likely to be a vital lubricant for a dynamic labour market. In most countries reviewed here, the agricultural labour market is not particularly dynamic, with wages stagnant or increasing only slowly; an expansion of credit to medium-sized enterprises in all sectors *specifically* for employment of labour (if that is possible) would help increase employment opportunities.

¹³ This suggests that in countries with poorly developed financial sectors (such as Malawi) the desire to provide fertiliser outside market channels may have a strong logic.



5.4 Market access and operation – infrastructure and extension

What has been hard to establish is the distinction between correlates and causes – not only in terms of the strength of an association, but in terms of which factors are essential and which are contingent. Whilst further work is needed in this area, it is clear that education, access to infrastructure, and agricultural extension emerge from several of the country studies as being strongly associated with market engagement and access. It is not only the level, but the stability and growth rate of expenditures on agriculture and important related sectors that appear to have a particularly positive impact on agricultural yields and poverty (Mosley *et al*, 2006). This has significant policy implications, which are unravelled below.

Education levels required to support agricultural poverty exits vary within countries: in Vietnam the Kinh-Hoa mainstream need higher secondary; for minorities lower secondary may be enough (Thang *et al*, 2006). In Uganda, proximity to secondary educational services also mattered – with households entering poverty residing almost double the distance from secondary education facilities (Ssewanyana, 2006).

Infrastructure needs to be adjusted to the needs of poor people (or to those regions where poor people tend to be concentrated). Electricity connections may be critical in some areas – in the Vietnam example, for the Kinh-Hoa poor; road access may be more vital for others. In Ethiopia, good roads were found to have strong growth effects above and beyond their influence on prices, although it was hard to disentangle these from wider liberalisation and market opportunity measures (Dercon *et al*, 2006).

Extension is also key in some contexts. This is controversial, as public (especially international) support for agricultural extension has reduced substantially since the 1980s. In Uganda, access to extension services is very highly correlated with use of fertiliser and thence higher yields per acre (Ssewanyana, 2006). But extension needs to be responsive to demand, and adjusted to the needs of the poorest farmers, to mountain contexts and other remote area conditions, if it is to help. The relative success of extension services in Ethiopia and Uganda was related to the down-reach of services to women (Suleiman *et al*, 2006). However, there are also indications that even quite old-fashioned extension plays a role in poverty exits: in Mt Elgon, Uganda, a panel survey showed access to extension in this area significantly correlated with productivity increases and poverty exits (Mosley, 2004). This area was not one of those taken up by Uganda's Programme for the Modernisation of Agriculture, and operated more or less on a top-down 'training and visit' approach. In India, access to extension was part of the 'village infrastructure' indicator, which was powerfully associated with exits from poverty.



Being correlated with exits from poverty does not of course imply a causal influence. The importance of extension as an actual or potential factor in poverty exits reflects the role played by information, access to which is still severely constrained in many rural areas despite radio, print media, TV and mobile connections. So, in places where, and for people for whom other sources of information are scarce, it is plausible that extension plays an important role in pathways out of poverty. In other words it is one way in which the state can compensate for a market failure. But the role of extension should be seen in the context of the development of innovative wider information delivery systems, whether provided by the private sector, NGOs or public-private partnerships, to stimulate improvements in the operation and performance of markets. The whole topic of information for poverty reduction is greatly under-researched.

5.5 Lagging regions

As countries reduce the incidence of poverty, it becomes increasingly concentrated in poor regions. This applies even more so to chronic poverty. All the studies which have a national scope note this – in Vietnam especially the North Central Coast, in Uganda in the North, in Nicaragua in the Northern mountains and the North Eastern lowlands.

It can be argued that agricultural growth is particularly important in lagging (remote, underdeveloped, marginal) regions, which tend to retain their natural resource based specialisation longer than other regions. Sometimes these regions are low potential – but not always. They do tend to have less good infrastructure, lower levels of education, extension systems which may not well tuned to potentials, and higher investment risk levels.

There are well worn debates about the merits of investment in lagging regions. Given growing and justified concerns about inequality, the balance in these debates may be shifting towards not only providing public services and protection as entitlements – as argued by Thang *et al* (2006) in relation to reducing the inequity between the Kinh-Hoa and ethnic minorities in Vietnam – but also infrastructure investments, which can help realise feasible improvements in the local economy, many of which may be agricultural, unless the resource base is very marginal.



6. Towards a policy narrative

Agricultural growth remains an important transmission channel for poverty reduction. To some extent agricultural growth will happen through market stimuli. However, public policy, public investment and services are important determinants of a pro-poor and labour-intensive agriculture, and need commitment and stable funding – public expenditure and aid – for infrastructure, education (both of which are not just agricultural), and agricultural research and extension.

This is not a new message. Somehow we have to get the sceptics to listen! Perhaps showing that poverty exits are typically linked with these public actions, which also help to prevent entries, will help. Given the high incidence of agricultural occupations among the chronically poor, and the difficulties many of them face in diversifying out of agriculture, there is a strong case for at least some focus on generating patterns of agricultural growth which bring them opportunities. This is particularly true in lagging regions. Some will, of course, migrate out of these regions and the agricultural sector (often not the poorest, though, as it takes resources to migrate); and some can be assisted into non-agricultural occupations through 'BRAC-type' operations (Matin and Hulme, 2004) – although there are substantial institutional constraints on this process in most contexts. The proportion of the chronically poor who can find such exit routes, will realistically, depend on the rate, nature and location of economic growth. Even where there is a high rate of overall growth, however, as in Gujarat over recent years, most of the chronically poor in lagging regions still hardly benefit (Krishna *et al*, 2005).

The need for stable public expenditure and aid is a key point. With all the uncertainty about the role of the state given that agriculture is a private activity, it is too easy for governments to reallocate public expenditure elsewhere. However, as Mosley *et al* (2006) argue, it is the consistency and reliability of expenditure to agriculture and key associated sectors such as education and infrastructure, following from Asian comparators, that is critical for stable growth and poverty reduction. Of course, excessively rapid growth in public services or infrastructure can be financially destabilising and must be avoided (the clearest example being Zimbabwe in the 1990s). Increasing and stabilising aid flows to agriculture and associated sectors is a necessary corollary in many cases. Not only reversing declining aid flows to agriculture, but also reversing a trend from sectoral to multi-sectoral programmes in some countries, which has exacerbated the marginalisation of agricultural expenditures (World Bank, 2006).

Perhaps the most critical issue is that starting the process of small-holder-driven positive change is not the problem: the real problem is to stop it cutting out (Mosley *et al*, 2006a). To achieve this, consistent and substantial state and non-state support without price distortions is needed. In small-holder-dominated agrarian economies it is still a state-induced process. Political incentives are crucial. Ethiopia and Uganda's relative success in reducing poverty could be related to both governments originally



having a predominantly rural constituency (Mosley *et al*, 2006). Often wide spatial distribution, lack of voice, and covariant risk diminish the ability of rural populations to organise themselves collectively to pressurise for change (Binswanger, 2006).

The argument here would be for expenditure on infrastructure, education and extension (or information services more broadly), rather than subsidised agricultural inputs. The latter are almost certainly unsustainable, although can be argued for as a form of social protection (see Levy, 2005). The relative success stories in Africa in terms of agricultural growth and poverty reduction (Uganda, Ethiopia) did not subsidise fertiliser (Mosley, 2006a).

Infrastructure investments need to be tuned to the requirements of the particular context if they are going to produce pro-poor agricultural growth. What sort of infrastructure is a priority, and the combinations and sequences, require regional planning, with a particular role for spatial planning (von Braun, 2006; Benson *et al*, 2005). More innovatively, this study also suggests that urbanisation is very important to the efficient functioning of markets. Urbanisation helps agricultural growth. Not only does it provide a dynamic market for outputs, but it also acts as a site for intermediaries, buyers and investors, providing needed services (communications, hotels etc) which enable firms to operate. Public urbanisation policy – decisions on communications infrastructure, allocations to metro-cities compared to regional towns – will have a substantial impact on the patterns of agricultural growth, and the accessibility of markets.

The shift to multi-sector and general budget support, often underpinned with numerous conditions imposed largely by the IFIs, is recognised to have reduced the stability of aid compared to downstream forms of aid. Where it is difficult to develop sector programmes in agriculture and natural resources, and given the low political priority sometimes accorded to agriculture, such that budget support is unlikely to have much impact in the sector, agricultural development may sometimes be better aided through long-term projects focused on infrastructure and extension/information services. Given the acute need to put agricultural growth onto a long-term footing, long-term projects may be less subject to political and other conditionalities than upstream forms of aid. This may be particularly true in lagging regions and difficult policy environments.

Well-functioning markets are critical, but there is not enough knowledge of the ways these operate with reference to poverty dynamics to weave a comprehensive story. The clearest implications lie in the financial markets, where savings and insurance markets are significantly underdeveloped (Thang *et al*, 2006; Suleiman *et al*, 2006), and more fundamental/urgent than credit for many poor people. A reasonable hypothesis is that credit is important especially for medium-sized farms and firms who will employ additional labour, and thus create a thicker labour market, which will be of great benefit to the chronically poor.



Labour markets are increasingly critical to socio-economic mobility at the lower end of the income distribution. Policies to increase employment and wage levels in agriculture and the efficiency of labour markets are notable for their absence, whether among governments or aid agencies (other than simply encouraging growth). It may even be hard to imagine what they would look like. Ensuring the provision of credit for employment to medium-sized firms and farms is one approach; favouring labour-intensive crops and enterprises in whatever way is possible (e.g. tax policy, price supports, technology transfer); irrigation, effectively increasing the land under cultivation; improving rural infrastructure; adding processing and marketing functions close to the farm. Chronic poverty reduction and multiplier effects from labour market participation also depends on the quality, quantity and regularity of labour supplied – public expenditures on health and education, adequate nutrition, well-functioning food markets, as well as sufficient levels of trust and social capital, are vital (Suleiman *et al*, 2006). Preventing the *collapse* of labour markets is also critical, if difficult – public works and employment guarantees, minimum income schemes are examples of policies which may work (Moseley *et al*, 2006).

Strong agricultural growth probably necessitates developing several dynamic sub-sectors at any given time. One or two major commodities are not enough, given the volatility of the world market. This would apply at a regional (i.e. within country) as well as national level. One of the reasons Uganda's growth has been less pro-poor than Vietnam's is that it was very dependent on one export commodity. The extent to which speciality markets, with particular standards (fair trade, organic, ethical trade etc) can make a difference to agricultural labourers, and small-scale producers is well documented (Barrientos and Dolan, 2003).

Information should be available and free of cost to the poor to correct for market failures – through public or NGO channels, or via farmers' organisations and co-operatives, and sustained over long periods of time. This means reversing trends to privatising extension systems, unless access for the poor is sufficiently incorporated in the design. Commitment to information provision could be as strong as to basic education. The critique of top-down universal extension has been powerful, and information systems need to be demand-responsive, and targeted. The success of extension in Ethiopia and Uganda was based on positive gender discrimination and through gaining leverage through using extension clubs (Suleiman *et al*, 2006). Increasingly, more commercial farmers get their information from commercial sources, so public extension can be targeted at smaller farmers, with a strong bias to farm systems, and diversification within and off the farm. The case for modern varieties is non-controversial. What needs specification in each context is what the key complementary investments are – equipment, assets, level of education, infrastructure priorities, and the key hazards against which to insure.



Bibliography

Ashley, C. and S. Maxwell (2001). "Rethinking Rural Development." Development Policy Review **19**(4): 395-425.

Attanasio, O. and Szekely, M. (1999) 'An Asset-Based Approach to the Analysis of Poverty in Latin America' Working paper R-376 Inter-American Development Bank. Washington DC.

Barrientos, S., C. Dolan, *et al.* (2003). "A Gendered Value Chain Approach to Codes of Conduct in African Horticulture." World Development **31**(9): 1511-1526.

Barrett, C. (2006) 'Welfare Dynamics in Rural Kenya and Madagascar' Journal of Development Studies, Vol. 42, No. 2, 248–277.

Barrett, C., Carter, M. and Little, P. (2006) 'Understanding and Reducing Persistent Poverty in Africa: Introduction to a Special Issue' Journal of Development Studies, Vol. 42, No. 2, 167–177, February 2006.

Begum and Sen (2004) 'Unsustainable Livelihoods, Health Shocks and Urban Chronic Poverty: Rickshaw Pullers as a Case Study' CPRC Working Paper 46 Chronic Poverty Research Centre, University of Manchester/ODI.

Benson, T., J. Chamberlin, *et al.* (2005). Why the Poor in Rural Malawi Are Where They Are: An Analysis of the Spatial Determinants of the Local Prevalence of Poverty. Food Consumption and Nutrition Division, Discussion Paper 198. Washington DC.

Berg, M. and Kumbi, B. (2006) "Poverty and the Rural Non-Farm Economy in Oromia, Ethiopia" International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.

Bhide, S. and Mehta, A.K. (2006) "Agricultural Growth and the Chronic Poor" Background paper for Second Chronic Poverty Report, Chronic Poverty Research Centre, University of Manchester, Manchester : UK.

Bhalla, S., Karan, A.K. and Shobha, T. (2004) "Rural Casual Labourers, Wages and Poverty: 1983 to 1999-2000", CPRC-IIPA Working Paper 14, New Delhi, India.

Bird, K. and Shepherd, A. (2003) "Livelihoods and chronic poverty in semi-arid Zimbabwe", World Development, Volume 31 No 1, March.

Binswanger, H. (2006) "Empowering Rural People for Their Own Development" Keynote address - International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.

Bryceson, D. (2000). Rural Africa at the Crossroads: Livelihood Practices and



Policies. Natural Resources Perspectives 52. Overseas Development Institute. London.

Bryceson, D. F. and V. Jamal (1997). Farewell to farms : de-agrarianisation and employment in Africa. Aldershot (Britain), Ashgate Publishing.

Byerlee et al (2005) 'Agriculture, Rural Development, and Pro-Poor Growth' Paper presented at World Bank Workshop on Operationalizing Pro-Poor Growth, World Bank, DFID, BMZ, AFC with IFPRI and GCED (2005) February 2005.

Carter, M. and Barrett,C. (2006) 'The Economics of Poverty Traps and Persistent Poverty: An Asset-Based Approach' Journal of Development Studies, Vol. 42, No. 2, 178–199, February 2006.

Chimhowu, A. (2006) 'Tinkering on the Fringes? Redistributive Land Reforms and Chronic Poverty in Southern Africa' CPRC Working Paper 58, Chronic Poverty Research Centre, University of Manchester/ODI.

Chimhowu,A. and P. Woodhouse (2006) 'Customary vs Private Property Rights? Dynamics and Trajectories of Vernacular Land Markets in Sub-Saharan Africa' Journal of Agrarian Change, Volume 6, pp. 346.

Clay,E. (2005) 'The Niger food crisis: How has this happened? What should be done to prevent a recurrence?' Overseas Development Institute, ODI Opinions, September 2005, www.odi.org.uk/publications/opinions

Davis, Benjamin & Marco Stampini. (2002), 'Pathways towards prosperity in rural Nicaragua; or why households drop in and out of poverty, and some policy suggestions on how to keep them out', Unpublished Paper, Nov 2002

Deininger, K. and J.A. Okidi (2003), "Growth and poverty reduction in Uganda, 1999-2000: Panel evidence", Development Policy Review, 21(4):481-509.

Dercon,S., J.Hoddinott and Woldehanna,T. (2006) "Growth and Poverty in Rural Ethiopia: Evidence from 15 Communities 1994-2004" Background paper for Second Chronic Poverty Report, Chronic Poverty Research Centre, University of Manchester, Manchester : UK.

Devereux, S. (2002). State of disaster. Causes, consequences and policy lessons from Malawi, ActionAid Malawi : 37.

DFID (2005), "Productivity growth for poverty reduction: an approach to agriculture" DfID, July 2005.

Dorosh,P. and Malik,S. (2006) 'Transitions Out of Poverty: Drivers of Real Income

Growth for the Poor in Rural Pakistan'. International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.



Dorward, A. R., J. G. Kydd, et al. (2004) 'A Policy Agenda for Pro-Poor Agricultural Growth' World Development 32(1): 73-89.

Ellis, F. (2000). Rural livelihoods and diversity in developing countries. Oxford ; New York, NY, Oxford University Press.

Ellis, F. (1998). "Household Strategies and Rural Livelihood Diversification." Journal of Development Studies 35(1): 1-38.

Ellis, F. and Freeman A. (2004) 'Rural Livelihoods and Poverty Reduction Strategies in Four African Countries' The Journal of Development Studies, Vol.40, No.4, April 2004, pp.1 – 30.

Farrington, J., R. Slater, R. Holmes, and P. Harvey (2006) 'Social Protection, rural livelihoods and economic growth: the case of cash transfers' Draft prepared for the meeting ILO / DFID Seminar: 'Challenging the development paradigm: Rethinking the role of social security in state building' September 4-5, 2006

Gaiha, R.. 1989. Are The Chronically Poor Also The Poorest In Rural India? Development And Change, 20/2, 295-322.

Gaiha, R. (1995) 'Does agricultural growth matter in poverty alleviation?' Development and Change 26: 285-304

Green, M. and D. Hulme (2005). "From correlates and characteristics to causes: thinking about poverty from a chronic poverty perspective." World Development 33(6): 867-880.

Glauben,T., Herzfeld,T. and Wang Xiaobing (2006) "The persistence of poverty in rural China: Applying an ordered probit and a hazard approach." International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.

Haggblade, S., P. Hazell and T. Reardon (2002). "Strategies for Stimulating Poverty Alleviating Growth in the Rural Non-Farm Economy in Developing Countries." EPTD Discussion paper 92. International Food Policy Research Institute & The World Bank.

Hoddinott,J. (2006) 'Shocks and their Consequences Across and Within Households in Rural Zimbabwe' Journal of Development Studies, Vol. 42, No. 2, 301–321, February 2006.

Hulme,D. (2003) 'Thinking 'Small' and the Understanding of Poverty: Maymana And Mofizul's Story' Chronic Poverty Research Centre, Working Paper No 22

Kakwani, N (1993). "Statistical Inference in the Measurement of Poverty". Review of Economics and Statistics. 632-39.



Krishna,A. (2004) 'Escaping Poverty and Becoming Poor: Who Gains, Who Loses, and Why?' World Development, Vol. 32, No. 1, pp. 121–136.

Krishna, A., Kapila, M., Porwal, M., & Singh, V. (2005). Why growth is not enough: Household poverty dynamics in northeast Gujarat, India. Journal of Development Studies, 41(7), 1163–1192.

Krishna,A. et al (2006) 'Escaping Poverty and Becoming Poor in 36 Villages of Central and Western Uganda' Journal of Development Studies, Vol. 42, No. 2, 346–370, February 2006.

Krishna, A. (2004). Escaping poverty and becoming poor: Who gains, who loses, and why? World Development, 32(1), 121–136.

Kuiper,M. and Ruben,R. (2006) "Poverty targeting, resource degradation and heterogeneous endowments – a micro-simulation analysis of a less favored Ethiopian village" International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.

Kuiper et al (2006) "Rural Livelihoods: Interplay Between Farm Activities, Non-farm Activities and the Resource Base". International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.

Kydd, J. G., A. R. Dorward, et al. (2004) 'Agricultural Development and Pro Poor Economic Growth in Sub Saharan Africa: Potential and Policy' Oxford Development Studies 32(1): 37-57.

Levy, S., Ed. (2005). Starter Packs: A Strategy to Fight Hunger in Developing Countries? Wallingford, Oxfordshire, CABI publishing.

Matin, I. and Hulme, D., (2003), 'Attacking chronic poverty: the IGVGD in Bangladesh', World Development, 31/3.

Moser,C. (2006) 'Assets, livelihoods and social policy' in Moser,C. (ed.) 'Assets, Livelihoods and Social Policy' World Bank and Palgrave (forthcoming)

Mosley, P. (2004) 'Severe poverty and growth: a macro-micro analysis', Chronic Poverty Research Centre Working Paper 51, Chronic Poverty Research Centre, University of Manchester, Manchester, UK.

Mosley, P., A.Suleiman and B. Chiripanhura (2006) 'Escape routes from the rural poverty trap: evidence from three African countries' Background paper for Second Chronic Poverty Report, Chronic Poverty Research Centre, University of Manchester, Manchester : UK.

Mosley, P. and A. Suleiman (2006a) 'Agricultural policies against severe and chronic poverty - Cross-section analysis and country case studies for sub-Saharan Africa'



Background paper for Second Chronic Poverty Report, Chronic Poverty Research Centre, University of Manchester, Manchester : UK.

ODD (2005) 'Interim Report: Niger – Analysis Of Cereal Markets In 2004–2005' Emergency Needs Assessment Branch (ODD), August 2005.

Okidi, A. J., S. Ssewanyana, L. Bategeka and F. Muhumuza (2005) 'Operationalizing Pro-poor growth: The Uganda case study'

Pingali, P. (2006) "Agricultural Growth and Economic Development: a view through the globalization lens" Keynote address - International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.

Prowse, Martin (2003) 'Towards a clearer understanding of 'vulnerability' in relation to chronic poverty', CPRC Working Paper No.24, Manchester, Chronic Poverty Research Centre.

Ravallion Martin and Shaohua Chen, (2004) "China's (Uneven) Progress against Poverty" World Bank, Washington DC.

Ravallion, Martin and Gaurav Datt, (1995) "Growth and Poverty in Rural India" World Bank Policy Research Working Paper No. 1405, Washington DC.

Ravallion, Martin, and Gaurav Datt (1996). "How Important to India's poor is the Sectoral Composition of Economic Growth," The World Bank Economic Review 10(1):1-25

Reardon, T., J. Taylor, K. Stamoulis, P. Lanjouw and A. Balisacan (2000). "Effect of Non-Farm Employment on Rural Income Inequality in Developing Countries. An Investment Perspective." Journal of Agricultural Economics 51(2): 266-288.

Rigg, J. (2006), 'Land, Farming, Livelihoods, and Poverty: Rethinking the Links in the Rural South' World Development Vol. 34, No. 1, pp. 180–202, 2006.

Roumasset, J. (2006), "The Economics of Agricultural Development: What Have We Learned?" International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.

Santos, P. and Barrett, C. (2006) "Informal insurance in the presence of poverty traps: Evidence from southern Ethiopia" International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.

Sen, B. (2003), 'Drivers of escape and descent: changing household fortunes in rural Bangladesh', World Development, vol. 31(March 2003), 513-535.

Soloaga, I. (2006) Agricultural Growth and Poverty Reduction: The Case of Mexico. International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.



Ssewanyana, S.N. and Bategeka, L. (2006) 'Chronic poverty and economic growth in Uganda: The role of markets' Background paper for Second Chronic Poverty Report, Chronic Poverty Research Centre, University of Manchester, Manchester : UK.

Start, D. (2001). "The Rise and Fall of the Rural Non-farm Economy: Poverty Impacts and Policy Options." Development Policy Review 19(4): 491-505.

Stevens, C., S. Devereux, et al. (2002). The Malawi famine of 2002: More questions than answers, Institute of Development Studies Bulletin (IDS): 7.

Suleiman, A. and Mosley, P. (2006) 'The poverty-reducing effect of increased food crop productivity in Ethiopia: A multi-market Analysis' Paper prepared for presentation at a conference on "*Reducing Poverty and Inequality: How can Africa be Included?*", Center for the Study of African Economies, Oxford University, Oxford, March 20-21, 2006.

Thang, N and L.D. Trung, V.H. Dat and N.T. Phuong (2006) 'Poverty, Poverty Reduction And Poverty Dynamics In Vietnam' Background paper for Second Chronic Poverty Report, Chronic Poverty Research Centre, University of Manchester, Manchester : UK.

Thorbecke, Erik and Hong-Sang Jung (1996). "A Multiplier Decomposition Method to Analyze Poverty Alleviation" Journal of Development Economics, 48: 279-300

USAID (2005) 'Niger: An Evidence Base For Understanding The Current Crisis' Fews-Net, Washington, July 28, 2005, www.fews.net

Von Braun, J. (2006) 'Emerging Risks and Opportunities in Food and Agriculture in Development: Implications for Policy and Research' DFID – ODI Seminar, Overseas Development Institute, London, September 18, 2006.

Walker, T., Boughton, D., Tschirley, D., Pitoro, R. and Tomo, A. (2006) "Using Rural Household Income Survey Data to Inform Poverty Analysis: An Example from Mozambique" International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006.

Whitehead (2006) 'Persistent poverty in North East Ghana' Journal of Development Studies, Vol. 42, No. 2, 278–300.

Wiggins, S. (2006) 'Case study: Nicaragua' Background paper for Second Chronic Poverty Report, Chronic Poverty Research Centre, University of Manchester, Manchester : UK.

World Bank (2006) 'Malawi Country Assistance Evaluation - Report No. 36862' Country Evaluation and Regional Relations Independent Evaluation, July 26, 2006. World Bank, Washington DC.



Appendix 1

Table 8: World Development Indicator Headcount Poverty Rates

Poverty trends - percentage of population below national poverty line			
Uganda	2000	2003	Change 2000-2003
National poverty headcount rate	33.8	37.7	3.9
Rural poverty headcount rate	37.4	41.7	4.3
Urban poverty headcount rate	9.6	12.2	2.6
Nicaragua	1993	1998	Change 1993-1998
National poverty headcount rate	50.3	47.9	-2.4
Rural poverty headcount rate	76.1	68.5	-7.6
Urban poverty headcount rate	31.9	30.5	-1.4
Vietnam	1998	2002	Change 1998-2002
National poverty headcount rate	37.4	28.9	-8.5
Rural poverty headcount rate	45.5	35.6	-9.9
Urban poverty headcount rate	9.2	6.6	-2.6
India	1994	2000	Change 1994-2000
National poverty headcount rate	36.0	28.6	-7.4
Rural poverty headcount rate	37.3	30.2	-7.1
Urban poverty headcount rate	32.4	24.7	-7.7
Ethiopia	1996	2000	Change 1996-2000
National poverty headcount rate	45.5	44.2	-1.3
Rural poverty headcount rate	47.0	45.0	-2.0
Urban poverty headcount rate	33.3	37.0	3.7

Source: World Development Indicators
National Poverty Thresholds Used

Dercon *et al* (2006) note that their figures for showing a 12% decline in the headcount poverty figure between 1994 and 2004, contrast strongly with WDI data, and cite the national participatory research on poverty as an example of research that supports their findings. Moreover, the authors expand on the qualitative component of the Ethiopian Rural Household Survey from both 1995 and 2004. The comparison is as follows:



Table 9: Households' Perception of Poverty Status in 1994 and 2004

	In 2004:		In 1995:
	Just thinking about your own household circumstances, would you describe your household as	Ten years ago, would you describe your household as	How wealthy do you consider yourself
Very rich	0.4	6.2	0.5
Rich	5.9	23.2	5.4
Comfortable	30.4	29.7	19.9
Can manage to get by	29.2	14.9	25.4
Never have quite enough	13.0	8.9	7.9
Poor	19.9	16.6	33.4
Destitute	1.1	0.5	7.6

Taken from: Dercon *et al*, 2006

When comparing how respondents described their living conditions in the two years, the authors found that the proportion of households stating that they were *destitute*, *poor* or *never having enough* declined from 49% in 1995 to 35% in 2004 – a very similar reduction to the quantitative consumption poverty figures.



Appendix 2

Key questions for panel data background papers on agriculture and chronic poverty

General

1. To what extent can chronic poverty be explained by:
 - Low agricultural returns to assets (specify crops, levels of returns and assets)
 - Low assets (examine the full range, with a special focus on access to financial markets; the latter may vary by access to housing or tenure rights)
 - High risk in agriculture and for agriculture-dependent households – mention of shocks and stresses (e.g. anticipated financial burden like marriage expenses)
 - Low productivity and wage casual agricultural labour
 - What happens when productivity increases?
 - Are there indications from the survey material (or other sources) on performance of labour markets?
 - Location in remote, low potential or stagnant regions – where agriculture is not vibrant but is the dominant occupation. Compare similar agricultural producers in non-remote, growing regions, and look at rate of escape.
2. To what extent is the slide into poverty associated with/explained by:
 - Having to fall back on agriculture, after an enterprise/job failure
 - Reduced returns to agriculture over time
 - Loss of agricultural assets (eg land, livestock, implements, seeds)
 - Absence of alternative opportunities
3. What are the identifiable escape routes? What role does agriculture or agricultural growth play in these?
4. Which assets (physical including land and livestock, financial, human - education, health, household labour, and structure – e.g. ratio of dependents to breadwinners) enable escape from low return agriculture? Either within agriculture or by changing or adding occupation(s)?
5. Are there any indications of impact *within* the household of increasing/decreasing returns from agriculture? (e.g. on women/men's participation in labour markets and wage levels; child or adult malnutrition; incidence of ill-health etc)
6. What are the indirect benefits of the any identifiable development strategies for the less able or non-working chronic poor (elderly, disabled, children)



7. Is there evidence that increased security (of property rights, because of peace after violence/war, mutual assistance, a new social protection policy, health insurance etc) leads to greater productive investment among chronically poor people?
8. Is there evidence of greater institutional inclusion of the chronically poor when institutions are decentralised? (e.g. Uganda and India during the 1990s.) Does greater inclusion produce any poverty status effects?

Financial markets

9. Are there indications of access to financial markets (and if so which?) being a major facilitator of exit?
10. Is there evidence of interlocked markets (eg finance linked to outputs) providing security and opportunities to increase incomes through investment? Or having any other effects?
11. Is there evidence that insurance significantly reduces vulnerability?
12. What financial markets do chronically poor people access?

Labour markets

13. Do chronically poor people work as casual labourers to a greater degree than those managing to escape poverty? And compared to those descending into it?
14. Does agricultural growth create greater volumes or higher rewards for employment?
15. To what extent is it the right to bargain for wages (and the implementation of that right) which most successfully raises the income of chronically poor labourers and farm-households?
16. What characterises wage bargaining? Does education level make a difference? Does membership of a group or network?
17. Is migration a key to exiting poverty? Or is it a survival strategy? (Or both, but for different people?) Is there evidence that migration is associated with other changes which enable participation in economic growth?

Information and technology



18. Does access to agricultural extension make a difference in aiding escape?
19. Significance of technology e.g. green revolution (improved seeds, fertiliser); irrigation, in explaining poverty dynamics?
 - Accessibility of these technologies to different groups among the poor.
 - Compare with availability of 'low external input' approaches if possible
20. Is there evidence that extension systems are capable of reaching the chronically poor? Are group-based systems any better than individual farmer-focused systems? Does education level make a difference to the extent of benefit from extension?

Urban proximity

20. Does proximity to an urban centre make a difference to returns to agricultural enterprises of the chronically poor? (i.e, even if they do not escape poverty). Does it enable escape?
 - What are the characteristics of urban centres which do enable escape (the degree of influence on escape may vary from one to another depending on the type of city – its social and economic structure, politics, governance etc)?
21. What is it about proximity to urban centres which has an impact?
 - Labouring opportunities
 - Market outlet for farm goods and services
 - Flows of information
 - Remittances
 - Involvement in better organised or more competitive trading systems/value chains

Commodity markets

22. Evidence that integration into new or niche markets (e.g. biological, fair trade, other) is useful to the poorest/chronic poor?
23. Evidence that demand for new products can be met by chronically poor households? What are the necessary mediating factors (e.g. firms, NGOs, interlocked markets)?



24. Is there any evidence that chronically poor households are better able to participate in supplying commodities to markets where there are substantial firms involved in the value chain?