

## IS POVERTY REALLY FALLING IN RURAL ETHIOPIA?

*Paper to be presented at the conference  
'Staying Poor: Chronic Poverty and Development Policy'  
at the University of Manchester, 7 to 9 April 2003*

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### **ABSTRACT**

It is generally believed that poverty in rural Ethiopia has fallen significantly since the early 1990s, thanks to improved governance and economic liberalisation policies. This paper presents several arguments that challenge this view. The first questions the methodological foundations of the panel survey data from which these positive trends are derived: we argue that the original sampling frame was so small and unrepresentative that there is no basis for extrapolating national poverty rates and trends from the six case study villages. The second argument questions the conceptual approach preferred by these studies: poverty estimates based on levels of current consumption are heavily determined in Ethiopia by seasonality, annual rainfall and food aid receipts. The third strand considers alternative sources of data on changes in well-being in Ethiopia: recent qualitative studies report that the poor perceive themselves as poorer and more vulnerable than 'official' poverty headcount figures suggest.

Finally, we report findings from our own survey in the chronically poor and historically famine-prone region formerly known as Wollo. Firstly, a significant proportion of households in the study area are destitute – destitution being defined as inability to meet basic needs, lack of key productive assets, and dependence on transfers. Secondly, the numbers of destitute people, and of people vulnerable to becoming destitute, have increased over the past ten years. Thirdly, the crisis of livelihoods underlying this trend is affecting entire communities – the dominant pattern is an aggregate downward shift, rather than stratification – and the decline of wealthier households is exacerbating the vulnerability of the poorest. These findings cast serious doubts on generalisations about poverty trends in Ethiopia. At the very least, national-level data need to be disaggregated: improving national trends may conceal pockets of entrenched poverty and a deepening livelihoods crisis in parts of rural Ethiopia.

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## INTRODUCTION

By most indicators, poverty and ill-being in Ethiopia are appalling. Yet several recent surveys suggest that Ethiopians are better off than they have ever been. The general consensus is that Ethiopia remains one of the world's poorest countries, but that economic growth trends are positive and living standards are finally starting to catch up – at least with the rest of Africa.<sup>1</sup> This conclusion is at odds with several qualitative studies which suggest the reverse – that rural Ethiopians perceive themselves to be poorer and more vulnerable than in the past – and with other surveys that find steadily declining holdings of key productive assets, such as land and livestock, by rural households.

This paper interrogates the methodological and conceptual bases of the surveys that have generated empirical evidence of falling poverty headcounts in rural Ethiopia. The paper also reviews trends in non-income or consumption-based indicators of poverty in Ethiopia, and summarises contradictory evidence from alternative sources. Finally, we present findings from a survey implemented in South Wollo, North Wollo and Wag Hamra zones of Amhara Region during 2001-2002, which supports the dissonant view that rural poverty and vulnerability are rising, not falling, at least in this chronically poor region of Ethiopia's northeastern highlands.

## TRENDS IN INCOME POVERTY IN ETHIOPIA IN THE 1990s

For several years, the World Bank and IMF have been arguing that poverty has been falling dramatically in Ethiopia, and that this “good news” (Dercon 2000) is primarily due to economic reforms introduced by the Derg government in the late 1980s and the post-Derg government in the early 1990s, with World Bank and International Monetary Fund support (World Bank 1999; IMF 1999).<sup>2</sup> This argument supports two convictions, closely associated with ‘Washington consensus’ thinking on growth and poverty reduction in developing countries: that economic liberalisation measures – specifically the macroeconomic and sectoral policy reforms that were initiated by the structural adjustment programmes of the 1980s – are prerequisites to reverse economic stagnation in poor countries,<sup>3</sup> and that economic growth is unambiguously beneficial for poverty reduction (Ravallion and Chen 1997; Dollar and Kraay 2000). In summary: growth is good for the poor, liberalisation is good for growth, therefore liberalisation is good for the poor. But what is the empirical evidence for this argument in the context of rural Ethiopia?

### *Findings from the CSAE/AAU panel survey*

In a series of papers based on analysis of panel data from six rural Ethiopian communities between 1989 and 1995, Stefan Dercon and his colleagues have argued (most recently in Dercon 2002; previously *inter alia* in Dercon 2000a; Dercon 2000b; Dercon and Krishnan 1998; Dercon and Krishnan 2000) that rural poverty in Ethiopia has fallen dramatically since the late 1980s, a success story which is attributed explicitly to the collapse of communism (both globally and in Ethiopia) and to the adoption of economic liberalisation policies (in

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<sup>1</sup> The sub-title of a recent paper by the economist Stefan Dercon encapsulates this positive view: ‘Changes in Poverty and Social Indicators in Ethiopia in the 1990s: (At last) some good news from Ethiopia’ (Dercon 2000).

<sup>2</sup> Ethiopia's agricultural sector reforms are described in Jayne *et al.* 2002; Kherallah *et al.* 2002; and World Bank 2002b. Since 1992, the markets for foodgrains, fertiliser, coffee and other export crops have all been liberalised, to varying degrees. Looking specifically at fertiliser marketing, Jayne *et al.* (2002:1976) categorises Ethiopia's reform process as “*de jure* reform, *de facto* control” by the government.

<sup>3</sup> This argument was first elaborated in the 1981 ‘Berg report’ (World Bank 1981). Despite many challenges and the emergence of a ‘post-Washington consensus’ in recent years, the basic tenets of Washington consensus thinking remain entrenched in international development discourse and policy (see Kydd and Dorward 2001), even in the ‘nationally owned’ PRSP process in which Ethiopia and many other countries are engaged.

Ethiopia).<sup>4</sup> Dercon's project is twofold: to demonstrate reductions in income poverty in rural Ethiopia, and then to attribute this to economic reforms.

In 1989, an IFPRI research team interviewed 445 households from seven rural communities that were purposively selected because they had suffered during the 1984/85 famine (Webb and von Braun 1994). In 1994 a team from CSAE and Addis Ababa University re-interviewed 362 of these households, from 6 of the 7 communities.<sup>5</sup> Consumption was used as the basis for measuring living standards, and poverty measures were derived from a "cost of basic needs" poverty line. Key findings on poverty levels for the 1989 and 1994 survey rounds are summarised in [Table 1](#).

**Table 1. Poverty in six Ethiopian villages, 1989-94**

Indicator	1989	1994	% change
Head count poverty ( $P_0$ )	61%	51%	-16%
Poverty gap ( $P_1$ )	29%	22%	-26%
Squared poverty gap ( $P_2$ )	17%	12%	-31%

Dercon 2002:33 [n=358 households]

Despite the 'health warnings' that Dercon himself attaches to his findings (Dercon 2002:2-3), larger generalisations have inevitably been drawn from this work. Firstly, the figures presented in [Table 1](#) are routinely taken as representing significant poverty reduction across Ethiopia as a whole. Secondly, this evidence is interpreted as vindicating the rejection of state central planning and adoption of economic liberalisation policies by the government of Ethiopia in the early 1990s. These conclusions were reinforced by follow-up surveys conducted in 1994-1997.

### **Evidence from other household surveys**

In the 1994 re-survey by CSAE/AAU, the sample frame was expanded to 15 communities, and 1,403 households from these communities were interviewed three times in 1994/95, and again in 1997.<sup>6</sup> Based on analysis of these surveys, Bigsten *et al.* (2003) calculated a statistically significant fall in poverty in Ethiopia from 41% to 36% between 1994 and 1997, most of which is accounted for by a decline in rural poverty [[Table 2](#)]. Bigsten *et al.* favour an explanation based on expanded production of *chat*, a non-traditional export crop, by rural households. They fail to comment on the fact that most of this apparent improvement occurred in a single year, from 1994 to 1995, when rural poverty fell from 41.9% to 37.6% – a 10% fall which implies that approximately 2 million rural Ethiopians living in poverty in 1994 crossed the poverty line in the next year.<sup>7</sup> Given that there is little evidence of either technological change in agriculture or substantial investment in off-farm livelihoods in this specific year, it might seem logical to attribute much of this dramatic improvement to fluctuations in the weather, and/or the effect of conducting different rounds of the survey in different seasons.

<sup>4</sup> Consider the opening paragraph of the [Abstract](#) to Dercon's recent paper on economic reform in Ethiopia, written for the World Bank: "In the late 1980s, the Ethiopian economy was very fragile ... the demise of the communist paymasters after the fall of the Berlin Wall meant that the situation was unsustainable. Food markets were liberalised from 1988. The civil war ended with the fall of the Communist government in 1991. Subsequently, further market liberalisation and a large currency devaluation took place" (Dercon 2002: ix).

<sup>5</sup> IFPRI is the International Food Policy Research Institute, in Washington DC. CSAE is the Centre for the Study of African Economies, at the University of Oxford. Hereafter this panel data set is referred to as the CSAE/AAU panel.

<sup>6</sup> This panel is commonly known as the Ethiopia Rural Household Survey (ERHS) data set.

<sup>7</sup> Assuming a population of 60 million in 1994, growing by 2.2% p.a., there were 25 million poor rural Ethiopians in 1994 and 23 million in 1995.

**Table 2. Poverty in Ethiopia, mid-1990s**

Indicator	1994	1995	1997
<b>National poverty (P<sub>o</sub>)</b> [n=2,733]	<b>41.2%</b>	<b>37.8%</b>	<b>35.5%</b>
<b>Urban poverty (P<sub>o</sub>)</b> [n=1,330]	<b>37.5%</b>	<b>38.7%</b>	<b>35.5%</b>
<b>Rural poverty (P<sub>o</sub>)</b> [n=1,403]	<b>41.9%</b>	<b>37.6%</b>	<b>35.5%</b>
<i>Cereal growing areas</i>	36.9%	28.7%	33.5%
<i>Enset-growing areas</i>	53.7%	58.4%	40.1%

Source: Bigsten *et al.* 2003:89-92

This speculation appears to be confirmed by disaggregated data from the panel surveys. Within the rural sample, it is striking that headcount poverty in the cereal-growing areas first fell from 1994 to 1995, but then increased toward 1994 levels by 1997. Conversely, poverty in *enset* areas ('false banana', common in southern Ethiopia) first increased, then fell by 1/3 (from 58% to 40%) between 1995 and 1997. To the extent that these data represent accurate summaries of regional realities, it would appear that the substantial reduction recorded in national poverty in the mid-1990s was driven primarily by climatic variability of unpredictable and divergent magnitudes across years and between regions within the country.

The largest regular survey in Ethiopia is the Household Income, Consumption and Expenditure (HICE) survey, which interviewed 12,000 households in 1995/96 and 17,000 in 1999/2000. The HICE registered a modest but *not* statistically significant fall in poverty over the four years, from 45.5% to 44.2% nationally and from 47.0% to 45.0% in rural areas (FDRE 2002:7).

Table 3 summarises the empirical evidence on poverty trends in Ethiopia since 1989 from the various sources discussed above. The large-scale surveys register national and rural poverty headcounts in the range 48% down to 36%, over the period 1994 to 1999. The range recorded by Dercon's smaller panel surveys is much wider, from 61% in 1989 down to 29% in 1997.

**Table 3. Headcount poverty in Ethiopia from household surveys, 1989-1999**

Source	Sample size	1989	1994	1995/1996	1997	1999/2000
<b>National:</b>						
(1) Bigsten 2003	[n=2,733]		41%	38%	36%	
(2) FDRE 2002	[n=12,000] [n=17,000]			46%		44%
<b>Rural:</b>						
(3) Dercon & Krishnan 1998	[n=351]	61%	50% (a) 33% (b)	45%		
(4) Dercon 2000a	[n=1,403]		39%		29%	
(1) Bigsten 2003	[n=1,403]		42%	38%	36%	
(5) MEDAC 1999	[n=7,010]			48%		
(2) FDRE 2002	n/a			47%		45%

Sources: (1) Bigsten *et al.* 2003: full sample size of 3,000 households nationally, 1,500 in rural areas.  
(2) FDRE 2002: Household Income, Consumption and Expenditure (HICE) surveys; sample size of 12,000 in 1995/96 and 17,000 in 1999/2000.  
(3) Dercon & Krishnan 1998: panel survey of 351 households in 6 communities for 1989 and 1994.  
(4) Dercon 2000a: sample size of 1,403 households.  
(5) MEDAC 1999: Welfare Monitoring Survey data, sample size = 7,010 households.

Note: 1994(a) is for the panel households pre-harvest; 1994(b) is for the same sample at harvest time.

Based on analysis of national accounts data, consumption surveys and food price trends, the World Bank (1999:24) concluded: "The evidence is quite compelling that the poor in Ethiopia have improved their well-being over the course of the nineties, especially in rural areas". On the other hand, the World Bank notes that most of this apparent poverty reduction occurred in the early part of the decade: following significant progress on poverty reduction in the early 1990s, "poverty has not changed significantly between 1995 and 2000" (World Bank 2002:1).

### ***Methodological concerns***

We have a number of concerns about the ERHS and (especially) the CSAE/AAU surveys, both methodological and interpretative. Despite the extravagant claims often drawn from its findings, the CSAE/AAU panel survey was far from representative of rural Ethiopia as a whole. Limitations include the sample size (covering a tiny fraction of Ethiopia's large and diverse population), the sampling frame (famine-affected communities were purposively selected, and all were located in government-controlled areas), and substantial sample attrition (one entire community was not re-surveyed, and many more households were not traced). The panel survey comprised 361 households from just six communities. As Dercon (2002:2) concedes: "This data set is small and is not a representative sample of rural Ethiopia"<sup>8</sup>. So the first set of questions or qualifications that need to be introduced to the interpretation of these findings is how generalisable they are, both within the sample itself and at the national (rural) level. In this context, Bevan (2000:1) criticises "a tendency for 'over-generalisation' to 'Ethiopia' of conditions which applied in a particular place at a particular time".

One specific source of bias is that the villages were purposively selected "because they had suffered in one way or another from the 1984-85 famine" (Dercon 2002:2) – the interviews in 1989 focused on household recovery from this famine. Another bias is that these communities all fell within the area controlled by the Derg in 1989; because of the civil war ongoing at that time, northern Ethiopia – where some of the severest poverty is found – was excluded.

There were significant changes in the sample between 1989 and 1994, at both the village and household levels. Of the seven villages that were surveyed in 1989, only six were revisited in 1994. One village was excluded "because of violent conflict in the area" (Dercon and Krishnan 1998:3). A further 6% of households interviewed in 1989 could not be traced in 1994 (Dercon and Krishnan 1998:35), resulting in a total shrinkage of the sample from 445 to 361 households, an attrition rate of 18.9%. One can only speculate how the overall reductions in poverty reported from the six re-surveyed villages would have been affected had all seven original sites been revisited in 1994. In a small, non-random sample like this one, an attrition rate of almost one household in five is too high to ignore, especially since we know that more than half the missing households were living in conditions of "violent conflict" in 1994. We might also hypothesise that many of the untraceable households had migrated (or died) due to an inability to maintain a viable livelihood in the area. The net result, though, is that all the data on which sweeping generalisations about poverty reduction in Ethiopia in the early 1990s are based derive from a sample of 361 households in six purposively selected communities, representing an 81% re-survey from a post-famine study five years earlier.

The quality and comparability of the data collected in 1994 are compromised by the fact that "due to extremely difficult survey conditions, data on both food and non-food consumption were collected in only four villages" (Dercon and Krishnan 1998:3), or 211 households. For the remaining 150 households, data were collected for food consumption only. Thus a complete set of consumption data for both 1989 and 1994 is available for only 211 households from four villages, or 47.4% of the original sample. If only these 211 households are considered, the conclusion on poverty trends is very different from that conventionally reported, as Dercon and

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<sup>8</sup> Even for the 1994-1995 panel survey, which increased the sampling frame from six to 15 villages, Dercon and Krishnan (1998:34) admit that: "A sample of 15 villages remains too small to be representative for all villages".

Krishnan (1998:13) concedes in a footnote: “Overall, in the sample of 211 households for which we have total poverty estimates, poverty marginally *increases* for all poverty measures” [emphasis added]. The reason for this reversal – the headcount index rises for this sub-sample from 39.8% to 41.7% – is that the two excluded villages (those with no non-food data) both registered significant declines in food poverty, while two of the remaining four villages registered increases in poverty and two registered declines. This reversal shows the sensitivity of this small sample to the specific villages selected, and undermines the credibility of attempts to extrapolate from a handful of case study villages to rural Ethiopia as a whole.

Even within the six re-surveyed communities, poverty trajectories are mixed and far from conclusive. Dercon and Krishnan (1998) found significant declines in poverty in four villages, but increases in food poverty in two villages. As Dercon (2002: ix) admits: “A significant number of households saw their welfare decrease in the period as well; some even experienced a move into poverty”. These findings should lead to a degree of caution in interpreting and extrapolating aggregate trends in poverty from two observations in a small panel sample. The recent rise in the number of panel surveys conducted in Africa and Asia has allowed better tracking of changes in household-level poverty indicators over time. It has also generated empirical evidence on ‘poverty dynamics’, with its finding of a high degree of ‘churning’ – people moving in and out of poverty from one survey round to the next (Baulch and Hoddinott 2000). In this context, it is significant that a reanalysis of the CSAE/AAU panel data found that: “Only 13 percent of the households remained in their original income decile five years later, while 66 percent of households either rose or fell by two or more deciles (27 percent rose and 39 percent fell...)” (Block and Webb 2001:341).<sup>9</sup>

Apart from inter-annual variability in poverty outcomes, seasonality (or intra-annual variability) is pronounced in rural Ethiopia, and presents another confounding factor to the attempt to extract longer-term trends from a limited number of observations on selected households over time. The three rounds of panel data collection in 1994 and 1995 were conducted at different times of year, which illuminated a marked seasonal effect in poverty levels, with large swings in the poverty headcount ( $P_0$ ) from season to season. For the full (expanded) panel of 1,411 households in 15 communities,  $P_0$  fell from 34.1% in the pre-harvest season to 26.9% around harvest time, then rose again to 35.4% in the post-harvest round. As Dercon and Krishnan (1998:16) recognise: “This confirms that seasonality may well affect any attempt to measure changes in poverty over time very considerably.” The authors attempt to control for seasonality by comparing 1989 data with “the closest month of data collection in the 1994-1995 rounds” (Dercon and Krishnan 1998:17). Nonetheless, this sensitivity of the aggregate poverty incidence to the time of year that the survey was conducted – let alone to harvest variability between years, another major determinant of consumption poverty in Ethiopia – throws further doubt on the interpretation of a fall in poverty headcounts in this panel survey as reflecting a significant and sustainable reduction in national-level poverty. Given Ethiopia’s “considerable ecological differentiation and associated farming system diversity” (Bevan and Joireman 1997:328), conducting the survey at different times of year in different sites only succeeds in capturing different locality-specific conditions (harvest time or hungry season, conflict- or famine-affected, presence or absence of food aid, and so on) in a series of community case studies that are not amenable to simple aggregation or extrapolation.

On a related point, the estimation of changes in consumption poverty is highly sensitive to assumptions made about price changes between survey rounds. Local prices for commodities consumed by rural Ethiopians vary greatly from market to market and from season to season. Under four alternative combinations of price inflation figures and consumption baskets for 1994, food poverty levels vary from 44.6% to 49.0%, 52.1% and 58.2% (Dercon and Krishnan 1998:12). The last figure is only 3 points below the 1989 poverty estimate of 61.2%, while the first estimate implies a remarkable 27% decline in poverty in five years.

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<sup>9</sup> Similarly high rates of ‘transitory poverty’ were observed in the ERHS panel survey over the period 1994-97, when 63% of rural households moved in or out of poverty, due to the volatility of agriculture and the consequently high variability of rural incomes (Bigsten *et al.* 2003:100).

Moreover, the basis of the calculation of poverty in this panel survey was the household's current consumption against a minimum basket of food and non-food items. As one of the world's most food aid-dependent countries, consumption in Ethiopia is substantially affected by food aid deliveries from year to year. Some communities in the panel survey were receiving food aid at the time of the 1994 survey, which elevated recorded food consumption levels, both in comparison with other sites not receiving free food and against other months and years when no food aid was provided. Bevan and Joireman (1997:329) recalculated the poverty headcount for one such community in Amhara Region in the absence of food aid receipts, and found that  $P_0$  in 1994 more than doubled over the official figure, from 15% to 36%.

As Bevan and Joireman (1997:328) point out, the consumption-based measures on which poverty estimates for Ethiopia are constructed embody "the value judgement that current consumption is the most important aspect of poverty". A sociological study of poverty was conducted alongside the household survey in 1994. One methodology used was personal wealth ranking: households were asked to assign themselves to one of 7 wealth categories, from 'very poor' to 'very rich'. Across all 15 sites, 50% of households put themselves in one of the three 'poor' categories, and 50% put themselves in one of the four 'not poor' categories. In the one study site in Amhara Region (the community receiving food aid in 1994), however, 71% were poor and only 29% were not poor.

When wealth ranking was done at the community level (groups from the community allocated local households to wealth categories), the proportion of households classified as poor in the Amhara survey site rose to 78%, with only 22% classified as 'not poor'. A third methodology used cluster analysis to group households according to variables identified by each community as important determinants of wealth in the local context. The results proved to be somewhat lower than the more subjective wealth ranking methods – 65% of the Amhara community households were classified as poor, and 35% as 'not poor' (Bevan and Joireman 1997:327) – but still higher than the official poverty estimate of 57% for Amhara region around the same time (in the 1995/96 Household Income, Consumption and Expenditure (HICE) survey).

The poverty headcount ( $P_0$ ) estimated for this community by the concurrent household survey was just 15%, with 85% of households classified as 'not poor' – almost the reverse of the community wealth ranking proportions [Table 4]. One reason for this discrepancy is the 'food aid factor' previously discussed; another is that the variables identified by the community as constituting wealth or poverty were broader than the consumption poverty indicator, including major assets owned (land, livestock, labour), as well as personal characteristics (health status, lazy or hardworking), local water quality, and dependence on others. As Bevan and Joireman (1997:332) conclude: "The empirical findings [...] suggest that local conceptions of poverty are based more on capital held than short-term income/consumption".

**Table 4. Alternative measures of poverty in one Amhara community, 1994**

Poverty measure	'Poor'	'Not Poor'
Poverty headcount ( $P_0$ )	15%	85%
$P_0$ excluding food aid	36%	64%
Cluster analysis	65%	35%
Personal wealth ranking	71%	29%
Community wealth ranking	78%	22%

Source: Bevan and Joireman 1997:331

Quantitative economists tend to be dismissive of 'subjective' methods such as wealth ranking, arguing that respondents have an incentive to exaggerate their true poverty and hardship to outsiders. Rarely are 'objective' survey methodologies subjected to the same critical scrutiny; yet there is evidence here of sampling and non-sampling errors that arguably underestimated

true poverty in this particular survey site – and in the overall panel survey, since there is no reason to believe that similar (or different) biases did not pervade data collection in the other 14 communities surveyed.

In our own stratified random survey of 2,127 households in 107 villages (reported below), we were struck by the diversity of livelihood strategies and range of living conditions in just three zones of Amhara Region. We made no attempt to quantify poverty in these zones, due to the methodological complexity of this undertaking; few of our findings are disaggregated below the zonal level, because of limitations imposed by the sample size; and we make no claims that our findings can be scaled up to represent conditions and levels of destitution and vulnerability elsewhere in Amhara Region, let alone across rural Ethiopia as a whole.

An unresolved topical debate in the poverty measurement literature addresses the cross-country comparability of poverty estimates derived from household surveys, and argues that household surveys tend to underestimate average levels of consumption (in international purchasing power parity terms), and therefore systematically to underestimate poverty levels, especially in the poorest countries of sub-Saharan Africa. As an alternative, UNCTAD has proposed estimating poverty levels from consumption data in the national accounts. UNCTAD's 'Least Developed Countries Report 2002' compares "household survey-based" estimates of poverty in various countries with "national-accounts-consistent" estimates, which allows more robust inter-country comparisons to be drawn. The results for Ethiopia are particularly striking: according to household survey data, only 31.3% of Ethiopians lived below the dollar-a-day absolute poverty line threshold in 1995, but according to national accounts data this figure is considerably higher, at 89.9%.<sup>10</sup> Inconsistencies are also apparent in trends over time. "According to the household survey data, average private consumption per capita increased by over 17 per cent in Ethiopia between 1981 and 1995. But according to national accounts data, average private consumption per capita fell by over 13 per cent between these two years" (United Nations 2002:45).<sup>11</sup>

Similarly, Bevan (2000) identifies several sources of confusion in official statistics on poverty and economic growth in Ethiopia, which allows different, even contradictory, conclusions to be drawn. For instance, the World Bank Africa Database lists four measures of GDP for Ethiopia. According to one data series, GDP per capita rose from \$403 to \$517 in PPP terms between 1990 and 1998, but it fell from \$134 to \$107 in current US\$ over the same time period. Bevan (2000:2) concludes: "if I wanted to argue that poverty was likely to be increasing in Ethiopia I would present changes in GDP per capita in current US\$; if I wanted to claim some success for policies I had advocated I would go for GDP per capita based on PPP".

### ***Interpretation of findings***

Our second set of concerns addresses the attribution of causality to these findings. Leaving aside the methodological concerns described above, and assuming that the CSAE/AAU panel data do in fact indicate real gains in consumption for the 'average' rural Ethiopian in the early

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<sup>10</sup> If this seems intuitively too high, consider a comparison with other poor African countries. According to household survey-based data, headcount poverty in Ethiopia (at 31%) was much *lower* in the mid-1990s than in the Gambia (54%), Madagascar (60%), Burkina Faso (61%) and Zambia (73%). However, taking national accounts as the basis for estimation, poverty in Ethiopia (at 90%) was much *higher* than in the Gambia (43%), Madagascar (49%), Burkina Faso (69%) and Zambia (81%) (United Nations 2002:46). At least in cross-country comparative terms, the latter figures seem intuitively more credible than the former.

<sup>11</sup> The debate on whether household surveys or national accounts data provide more accurate estimates of poverty is beyond the scope of this paper (see United Nations 2002:45-51 for a discussion), but a general conclusion emerging from this comparative work is that household surveys tend to underestimate average levels of consumption (in international purchasing power parity terms), especially in the poorest countries, and therefore systematically underestimate poverty levels, most notably in sub-Saharan Africa.

1990s, how are we to interpret and explain this improvement during a complex half-decade of rapid change? Block and Webb (2001:335) sum up the essential features of the period:

“The half-decade straddled by the two surveys saw improvements in farm output that allowed for quite rapid post-famine recovery. Cereal production rose from 4.7 million tons in 1988/89 to 5.3 million tons in 1993/94, representing an increase in annual per capita cereal consumption from 105 kg to 114 kg during that period. Part of the increase was due to clement weather but much can be ascribed to economic ‘rebound’ following the overthrow of a 15 year-old totalitarian regime”.

Dercon himself cautions against extrapolating “overall poverty trends” from the small and unrepresentative CSAE/AAU dataset. In the same paragraph, however, he asserts that these surveys “provide evidence” on how “growth is translated into rural poverty alleviation” (Dercon 2002:2-3). In that paper, Dercon controls for shocks such as civil war and variable weather, and concludes that “shocks matter, but that the main factors driving consumption changes are relative price changes, resulting in changes to the returns to land, labour, human capital, and location”. Dercon’s insistence on imposing a mono-causal explanation – macroeconomic liberalisation – on a set of apparently positive poverty outcomes has served to propagate the World Bank’s and IMF’s preferred representation of Ethiopia in the 1990s: that its realignment from the Soviet sphere of influence to Western neoliberal values of free markets and good governance is bringing prosperity to some of the world’s poorest people. A succinct statement of this view is provided by Demery *et al.* (1995:40): “Using the 1989 survey conducted by IFPRI in seven areas in the country, and a repeat survey in 1994 (including the panel of households visited in 1989), Dercon, Krishnan and Kello (1994) report that *poverty fell dramatically as a result of these liberalisation measures*” [emphasis added].<sup>12</sup>

The reality is, of course, more nuanced than this ideologically-inflected reductionism permits: in six diverse Ethiopian communities between 1989 and 1994, some people got less poor while some got poorer and others stayed where they were. The reasons why some people were better off in 1994 than in 1989 included the overthrow of a repressive dictator, peace and security following the end of a protracted civil war, a succession of good rainfall years in their locality, ongoing recovery from the 1984/85 famine – *and* the removal of economic constraints, barriers to trade and market distortions.<sup>13</sup> Economic liberalisation undoubtedly assisted those who were in a position to take advantage, but it may well have contributed – as elsewhere in Africa – to making others worse off than before. This is a more balanced reading of Dercon’s findings, but it is incompatible with ‘Washington consensus’ orthodoxy.

There is a pervasive tendency in recent World Bank publications on growth and poverty trends in Ethiopia to overstate the role of economic liberalisation in driving economic growth, and to understate the contribution of other fundamental changes in Ethiopia’s political economy during the past decade. The complexity of the changing economic and political environment has not been adequately recognised in the interpretation and attribution of causality to the

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<sup>12</sup> Consider, also, these excerpts from another World Bank publication: “Remarkable changes are beginning in Ethiopia’s agriculture after decades of slow growth [...] During the 1970s and 1980s, agriculture was held in check by the severe policy constraints placed upon it. [...] With the advent of new policies and the end of the war in Ethiopia in the early 1990s, agriculture began to stir. [...] agricultural growth will help alleviate the situation of the estimated 20 million people in a state of chronic poverty in rural areas” (Donovan 1997:2-6). Similarly, the IMF applauded Ethiopia’s economic progress over the period 1996 to 1999: “Ethiopia ... continued to make strides in transitioning to a market-based economy and alleviating widespread poverty. Over the past four years, the government has sought to consolidate gains made during the initial phase of structural adjustment” (IMF 1999:7).

<sup>13</sup> Bigsten *et al.* (2003:88-89) also caution against a simplistic explanation of Ethiopia’s economic recovery in the early 1990s. “Helped by the restoration of peace, good weather, and changes in macroeconomic policies, the economy registered increased rates of growth during 1992/3 to 1996/7 [...] Without a full-fledged model of the economy, it is obviously hard to separate the effects of policy changes from the impacts of weather and the restoration of peace”.

findings. Even by Ethiopian standards, the 1980s was a turbulent decade. In mortality terms, the worst African famine of the 20<sup>th</sup> century occurred in northern Ethiopia in 1984/85. The protracted civil war intensified in the late 1980s, culminating in the overthrow of the Derg by EPRDF forces in 1991. Financial and technical support from the Soviet Union was pivotal in sustaining the Derg regime through the late 1970s and 1980s, but by 1989 this support was effectively ended by the collapse of the Soviet bloc regimes. In this context, the timing of the first round of the panel survey which informs Dercon's analysis of poverty trends is an atypical baseline year against which to draw conclusions on the impact of economic liberalisation policy in the early 1990s, while the early 1990s was a period of extraordinarily complex and rapid change in Ethiopia. Recognition of this atypicality is implicit in Dercon and Krishnan's (1998:1) contextualisation of the panel survey findings:

“The first survey, conducted in 1989, provides a picture of the situation in Ethiopia towards the end of a long period of strict economic controls, bad weather and civil war. The year 1994 marks the beginning of a structural adjustment programme, agreed by a new government that came to power after the end of the civil war in 1991”.

Regrettably, this recognition does not extend to their explanation of the findings on poverty trends. An equally plausible narrative could be constructed that focuses on steady recovery from the 1984/85 famine, combined with other major structural factors like the end of the civil war and the transition to peace and stability. As in Mozambique and Uganda, both of which enjoyed spectacular growth during the 1990s following protracted civil wars, the impacts of economic policy must be seen in the broader context of the normalisation of a traumatised society. Post-conflict economies invariably record high growth rates, but this is relatively easy to achieve from a very low baseline with devastated physical and social infrastructure.

Of course “the abolition of high rural taxes and trade restrictions related to food crops” must have made a difference, but does this reflect the triumph of one economic model (‘market-based neoliberalism’) over another (a ‘communist-inspired, controlled economy’), or simply the inexorable processes of post-famine and post-conflict recovery? Macroeconomic and sectoral economic policies obviously matter, but they matter a lot less to poor farmers than whether or not they are fighting a civil war and whether or not it rains enough during the farming season. In this context, it is not sufficient to note *en passant* that “incentives for market-based activities [were] most likely aided by increased security” (Dercon 2002:5), without recalling that only a few years earlier, Mengistu's airforce had systematically bombed markets in Tigray and Eritrea until people were forced to transact their business at night (de Waal 1997:118).

These conclusions are supported by alternative readings of Dercon's own data. For instance, the largest single component of rural income growth in the sample was livestock (at 12.9% per annum), which received little policy attention over the survey period, while crop income (which grew at 3.9% per annum) should in theory have been more amenable to policy reforms (Dercon 2002:45). The centrality of livestock as both productive assets and stores of wealth in rural African economies is well known, as are the lengthy post-drought recovery periods before livestock herds and flocks are reconstituted. More generally, the droughts that preceded the 1984 famine highlighted the dangerous dependence of the rural poor in Ethiopia on rain-fed agriculture, for food production and for crop and livestock income. In respect of the CSAE/AAU panel survey, Dercon's own observation on the significance of unpredictable weather in influencing poverty outcomes speaks for itself:

“One group of people identified as poor in 1989 and who had relatively good land and labour, access to roads and towns, and *the best weather* strongly outperformed all other households during the study period, 1989-95. Another group identified as poor in 1989, and with much poorer endowments, *faced poor rains* and smaller producer price increases, which resulted in virtually unchanged and persistent poverty during the study period” (Dercon 2002:6; emphases added).

Finally, even if the findings are in some sense indicative of broader economic processes at work in rural Ethiopia in the early 1990s, how sustainable are these gains? Growth in Ethiopia is variable, erratic, and highly contingent [Table 5]. Five years before the 1994/95 survey, Ethiopia was at war; five years later it was at war again. Ethiopia's per capita GDP fell from US\$ 110 in 1997 to US\$ 100 in 2001 (World Bank 2002a). What trends and trajectories would have been observed if the panel survey had been conducted, not in 1989 and 1994, but in 1997 and 2001?

**Table 5. Per capita GDP and consumption in Ethiopia (in US\$), 1982-98**

Time period	Real GDP per capita	Real agricultural GDP per capita	Real consumption per capita
1982-84	103	122	110
1985-87	93	98	100
1988-90	101	102	101
1991-93	92	101	104
1994-96	99	103	114
1997-98	106	105	118

Dercon 2002:11

More fundamentally, what are the drivers of growth in the rural Ethiopian economy? Even if the balance of empirical evidence does suggest that poverty in Ethiopia has fallen during the 1990s, projections indicate that the economy has to grow by 5.7% per annum in real terms, if Ethiopia is to achieve the Millennium Development Goal of halving poverty by 2015, from its current level of 44.3% to 22.1% (FDRE 2002:ii). Real GDP growth has averaged 5.8% since 1992/93, but this average conceals enormous year-to-year variability, with a peak of +10.6% in 1995/96 and a low point of -1.4% in 1997/98 (FDRE 2002:2-3). In an analysis of the sources of economic growth in Ethiopia in the 1990s, Easterly (2002) found that most growth came from non-agricultural sources, despite the government's focus on agriculture-led development (see the 'Agricultural Development Led Industrialisation' (ADLI) strategy).

If Ethiopian agriculture is recovering, it still has a long way to go. According to the FAO, setting 1989-91 = 100 as the base, the index of food production per capita fell steadily from the 1960s to the 1990s, from 135 in the mid-1960s to 113 in the mid-1970s to 104 in the mid-1980s and 96 in the mid-1990s (Wiggins 2000:659). In a recent paper on Ethiopia's agricultural performance in the 1990s, the World Bank (2002b) notes that agricultural productivity is low, with a value-added of \$139 per person, compared to an average of \$370 for SSA. Growth in rural value added per capita since 1993 is statistically insignificant. Cereals production did increase from 7 million tons per annum in 1990-1992 to 10 million tons in 1998-2000, but this was entirely due to expansion of area (at 5.9% p.a.) – "which may be unsustainable" – rather than cereal yields (which fell by 0.5% p.a.). Most of the 3.2% p.a. growth in GDP per capita between 1993 and 2001 came from the non-agricultural sectors. The World Bank concludes that there are still 4-5 million "chronically vulnerable" households in Ethiopia, and that "households subject to periodic shock seem to be increasing" (World Bank 2002b).

## TRENDS IN NON-INCOME WELL-BEING INDICATORS

As with income-based measures of poverty and well-being in Ethiopia, non-income measures present a mixed picture of progress and regression during the 1990s. According to Bigsten *et al.* (2003:88): "Over the last 30 years, life expectancy has shown little improvement, food production per capita has declined, and school enrolment has changed little". Even where improvements are evident, absolute levels of deprivation remain higher in Ethiopia than almost anywhere else. For instance, Ethiopia is one of only five African countries where less than 25% of rural residents have access to improved (treated or protected) domestic water.

According to the 'World Development Indicators' (World Bank 2002), Ethiopian life expectancy at birth actually fell in the late 1990s, from 43 years in 1997 to 42 years by 2000. This is one of the lowest life expectancies in the world, and it has risen only marginally since the 1970s, when it stood at 41 years. Moreover, while HIV/AIDS infection rates have until recently been lower in Ethiopia (around 9% in 1997 for the 15-49 year-old age cohort) than in southern and central Africa, there are alarming signs that the pandemic is about to 'take off'. A recent report by the U.S. National Intelligence Council projects that Ethiopia will have 7 to 10 million HIV/AIDS cases by 2010, an adult prevalence rate of 19-27%, up from the official total of 2.7 million cases in 2002 (NIC 2002:4). This threatens to further reverse the minimal gains in life expectancy that have been recorded since the 1970s.<sup>14</sup>

Ethiopia remains in the dwindling group of countries with an infant mortality rate (IMR) of above 100 per 1,000 live births, although this indicator did fall between 1970 and 1998 from 159/1,000 to 110/1,000. In terms of child mortality rates (CMR), however: "Ethiopia is moving in the wrong direction: its under-fives mortality rate worsened from 166 per thousand in 1997 to 179 per thousand in 2000" (Robinson 2003:11). Child malnutrition rates remain extremely high. Anthropometric surveys undertaken in the late 1990s indicate that chronic malnutrition (as measured by stunted growth) is coming down. "Both stunting and severe stunting in 1999/2000 have witnessed tremendous declines (by 15-34 percent) from the levels observed in the 1995/96 survey, indicating an improvement in the long-run measure of malnutrition" (FDRE 2002:11). On the other hand, the figures for wasting (the anthropometric measure of short-term or acute undernutrition) deteriorated slightly over the same period [Table 6].

**Table 6. Child malnutrition in rural Ethiopia, 1995-1999**

	Stunting		Wasting	
	1995/96	1999/00	1995/96	1999/00
<b>Male</b>	70.0%	59.4%	9.3%	10.5%
<b>Female</b>	66.7%	56.4%	9.8%	9.3%
<b>Total</b>	68.4%	57.9%	9.5%	9.9%
<b>% change</b>	-15.3%		+4.3%	

Source: FDRE 2002:11. Statistics are for children aged 6-59 months.

The national literacy rate in Ethiopia was only 29% in 1999/2000, up from 27% in 1995/96 [Table 7]. Illiteracy is considerably higher in rural areas (78%) than in urban areas (30%), and among women (80%) than among men (60%). The gains in literacy recorded during the late 1990s were disproportionately captured by males. An encouraging sign, though, is that both gross and net primary and secondary enrolment rates "witnessed dramatic improvement" (FDRE 2002:13) in the late 1990s, especially in rural areas, and for girls more than boys.

**Table 7. Trends in literacy in Ethiopia, 1995-1999**

	1995/96			1999/00		
	Rural	Urban	National	Rural	Urban	National
<b>Male</b>	29.2%	82.3%	36.5%	33.0%	82.1%	40.0%
<b>Female</b>	9.2%	60.4%	18.1%	11.0%	61.2%	19.5%
<b>Total</b>	19.4%	70.0%	27.3%	21.8%	70.4%	29.4%

Source: FDRE 2002:13

Note: Literacy is defined as the percentage of Ethiopians aged 10 years and over who can read and write.

<sup>14</sup> In high HIV-prevalent countries like Botswana, Uganda and Zimbabwe, life expectancy at birth has already fallen by around 7 years since the 1980s.

Apart from quantitative statistics on aspects of well-being and deprivation, there have been two qualitative ‘consultations’ with poor Ethiopians in recent years, designed to elicit their own perceptions and experiences of living in poverty. The first was the World Bank’s ‘Voices of the Poor’ study in 1999, and the second was a round of consultations by the government of Ethiopia, undertaken in 2001/02 as part of the PRSP process. Both these studies found an apparent contradiction between people’s perceptions of poverty levels and trends, and the ‘official’ household survey statistics on poverty. Landless young men interviewed for ‘Voices of the Poor’ are one ‘vulnerable group’ who clearly feel they are worse off than in the past:

“Ten years ago we didn’t have unemployment. We were never given land. There were no schools to teach us skills, but there was a literacy program. Today we can’t find jobs to do or land to plow. Even those of us who went to schools can’t find jobs” (quoted in Narayan *et al.* 2000:62-63).

Table 8 lists a number of statements made by Ethiopians about their state of poverty during the ‘Voices of the Poor’ fieldwork. Many of these comments suggest powerlessness and social exclusion, others a deterioration in well-being over time.

**Table 8. Self-reported ‘ill-being’ in Ethiopia**

“We are left tied like straw”	“My relatives despise me and I cannot find them”
“Living by scratching like a chicken”	“If one is full, the other will not be full”
“What is life when there is no friend or food”	“We have become empty like a hive”
“We are above the dead and below the living”	“We sold everything we have and have become shelter-seekers”
“The poor is falling, the rich is growing”	“Our life is empty; we are empty-handed”
“We simply watch those who eat”	

Source: Narayan *et al.* 2000:33

The PRSP consultation process in 2001/02 found a widespread perception that poverty has worsened in recent years.

“In the *Woreda* (district) consultations ... many participants expressed the opinion that the level of poverty is increasing. On the surface, this seems inconsistent with the results of the quantitative analysis, which shows a level or declining trend in absolute poverty levels” (FDRE 2002:19).

The government explains this dissonance in terms of recent collapses in coffee and grain prices, which have undermined farmers’ incomes and livelihoods. As will be seen below, our survey in Wollo also elicited strong and widely-held perceptions that the incidence and severity of poverty are steadily increasing over time, contradicting the official discourse of dramatic income and consumption gains in rural Ethiopia in the 1990s.

## DESTITUTION IN ETHIOPIA'S NORTHEASTERN HIGHLANDS

### *Introduction to the study*

Against the background of these conflicting and controversial findings on the crucial question of whether poverty in Ethiopia is falling or rising, IDS Sussex was contracted by Save the Children (SC-UK) to design and implement a policy-focused research project on 'Destitution in the Northeastern Highlands'. The area covered by the study corresponds approximately to the former Province of Wollo,<sup>15</sup> which has the misfortune to be internationally famous for recurrent famines and chronic deprivation (Sen 1981; Baulch 1987; Devereux 1988; Dessalegn 1991). SC-UK has worked in this area for two decades, implementing nutritional and socio-economic surveillance and research as well as development and relief programmes. The impetus for the current study came from their deep concern, based on qualitative assessments and familiarity with rural communities over a span of years, that the official view of falling rural poverty was simply wrong, at least for Wollo: that, on the contrary, people there were getting poorer and more vulnerable to disasters such as drought; that a large group of 'destitute' households were emerging who could not support themselves even in good rainfall years; and that the policy implications of these trends needed urgent attention by both government and donors.

Wollo lies along the eastern edge of the northern highlands, encompassing gorges and lowland plains as well as high-altitude ridges and plateaux. It thus includes all three main agro-ecological zones which are frequently used to classify production systems and survey sites in Ethiopia: the *dega* or highland zone (3,000 to 4,000 metres above sea level); the *woina-dega* or mid-highlands (1,500 to 3,000 masl); and the *kolla* or lowland area (below 1,500 masl). This varied and rugged terrain has contributed greatly to the cultural and economic diversity of the area; its inaccessibility (due largely to the sheer physical difficulty of travel or road-building); and the complex of interdependent livelihood systems, in which commodities and labour move between neighbouring altitude zones which have different seasons, crops and other produce (and, in most years, different luck with the weather). The total population is approximately 4.5 million,<sup>16</sup> of whom only 10% are urban (concentrated largely to the south, in the one major town of Dessie).

Destitution is defined for the purpose of this study as "a state of extreme poverty that results from the pursuit of 'unsustainable livelihoods', meaning that a series of livelihood shocks and/or negative trends or processes erodes the asset base of already poor and vulnerable households until they are no longer able to meet their *minimum subsistence needs*, they lack access to the *key productive assets* needed to escape from poverty, and they become *dependent* on public and/or private transfers" (Devereux and Sharp 2001). This concept of destitution (which was triangulated with participatory fieldwork and was found to be highly compatible with local perceptions and criteria of extreme poverty) is quite different from measures of poverty based on current income or consumption. Drawing on a modified livelihoods framework, it focuses on the productive assets (human, natural, physical, financial and social) needed to make a living over the medium to long term. Inherent in our definition is the understanding that destitution is not merely a static condition, but also a process with its own momentum. It is multi-dimensional, comprising not only inadequate consumption but also a deprivation in the capacity to make a better living, and a loss of independence. We see destitution as primarily a failure of livelihoods, both at the household and, as we shall see later, at the community and meso-economic levels.

In order to investigate this complex phenomenon, a combination of qualitative and quantitative data collection methods was designed, based on pilot fieldwork in July and August 2000. A

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<sup>15</sup> Under the federal re-structuring of Ethiopia's administrative boundaries since 1993, this area now comprises the three Administrative Zones of Wag Hamra, North Wollo and South Wollo, in Amhara Region.

<sup>16</sup> 1994 Census data projected to mid-2001.

household questionnaire collected data on a range of potential indicators relating to the three key features of destitution highlighted in the definition above (basic needs, productive assets and dependence on transfers). This questionnaire was administered to a stratified three-stage random sample of 2,127 households in 107 villages across Wollo. The primary sampling frame consisted of a computerised Geographical Information System (GIS) map of all *kebeles* (sub-districts) in the study area, stratified by nine 'Food Economy Zones'<sup>17</sup> previously identified by SC-UK. A computer-generated random sample was taken of three *kebeles* per FEZ. Within each *kebele*, two further stages of random sampling were applied by the field-teams, using a simple and transparent lottery system with the participation of local representatives: these procedures selected four *gotts* (villages) per *kebele*, and then twenty households per *gott*.

Alongside the household survey, more in-depth and open-ended qualitative methods were applied in a sub-sample of nine *gotts* (one in each FEZ, selected purposively from the randomly sampled survey sites). Data collection methods included life histories and case studies of households and individuals; focus groups of various kinds; and PRA-based tools such as time-lines, wealth ranking and matrix scoring. Since the qualitative work was conducted simultaneously with the survey, it was also possible to conduct follow-up interviews with selected questionnaire respondents to cross-check the validity of the questionnaire and to investigate interesting issues and cases. The qualitative field-work, in addition to enhancing the quality control and analysis of the questionnaire data, enabled us to investigate the causes and processes of destitution at both household and community levels.

Fieldwork was carried out between November 2001 and March 2002 (during the main dry season, to allow access to sites which are unreachable during the rains). An interim report on the main findings was discussed with stakeholders at Policy Consultation Workshops in Bahr Dar and Addis Ababa (the regional and national capitals) in November 2002, and the final report is currently (March 2003) in preparation. The following sections outline the major findings regarding the scale, trends, and community-level dimensions of destitution in Wollo.

### ***Findings on the depth and scale of destitution***

The first major finding is that a significant proportion of households in the study area are destitute by the definition above: our best estimate is 13.8% of the sample, which extrapolates to 560,000 people out of the total rural population of around 4 million. Equally significant, we find that a much larger group (54.9% of the sample, implying more than 2 million people across Wollo) are only slightly better off than the destitute, and are already caught up in the downward spiral of processes which may bring them to destitution within the coming few years. We call this group the 'vulnerable'.

In analysing the household questionnaire data, we first selected seventeen objective indicators of basic needs and livelihood resources, plus one more holistic indicator of household (in)dependence based on self-assessment. This self-assessment indicator, which is discussed further in the section on trends, represents an integration of participatory information collection within a quantitative survey: it was placed at the end of the questionnaire interview in the form of a summing-up or overview discussion of the issues raised, leading the informants eventually to place their household's current situation in one of the following four categories:

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<sup>17</sup> "A food economy zone is defined on the basis of common characteristics in agro-ecology, cropping patterns and production, trade interactions, population density, and market options. Thus, households residing within a FEZ share a common reliance upon food and income options" (Haile Kiros *et al.* 2000:1).

**Table 9. Explanation of self-assessment categories**

Category	Explanation
Sustainable	“Doing well: able to meet household needs by your own efforts, and making some <u>extra</u> for stores, savings and investments.”
Viable	“Doing just okay/ breaking even: able to meet household needs but with <u>nothing extra</u> to save or invest.”
Vulnerable	“Struggling: managing to meet household needs, but by <u>depleting productive assets</u> and/or sometimes receiving support.”
Destitute	“Unable to meet household needs by your own efforts: <u>dependent on support</u> from community or government (could not survive without it).”

Table 10 summarises some results of preliminary exploration of the indicators individually. The self-assessment indicator is categorical, as explained above, giving a direct quantification of the number of households who perceive themselves as destitute (14.6%) or vulnerable (54.9%). For each of the remaining (‘objective’) indicators, threshold values distinguishing the destitute and vulnerable groups were determined through a combination of qualitative assessment (drawing on people’s own explanations of the asset and consumption levels of the poorest households within their communities, as well as the minimum levels of specific resource types for a viable livelihood) and descriptive statistics (discontinuities in the distribution of the survey variables). The threshold values for the destitute category are explained in the second column of the table.

**Table 10. Comparison of alternative single indicators of destitution**

Indicator	Cut-off Point for Destitution	Destitute	Vulnerable	‘Poor’ (a)
<b>Dependency</b>				
Self-assessment	‘Unable to meet household needs without support’	14.6%	54.9%	69.5%
<b>Basic needs</b>				
Food security	1 or 0 meals/day in the worst month last year	29.2%	32.8%	62.0%
	> 3 months food shortage last year	19.2%	44.4%	63.6%
Clothing purchases	< 2 times in last three years	23.2%	30.8%	54.0%
Housing quality	Poor quality of both roof and walls	24.3%	23.4%	47.7%
Basic expenditure items	No basic items present in the home	10.4%	48.8%	60.2%
<b>Livelihood resources</b>				
Human capital	Household labour capacity < 2 adult equivalents (b)	19.0%	43.2%	62.2%
	No adult male labour in the household	20.9%	–	–
	No access to non-household labour	–	60.4%	60.4%
Natural capital	< ½ hectare of farmland owned	22.1%	38.6%	60.7%
	<u>or:</u> landless	7.0%	–	–
	< ½ hectare of farmland cultivated	26.2%	30.7%	56.9%
	<u>or:</u> no land cultivated	12.8%	–	–
Physical capital	No plough oxen owned	41.1%	31.9%	73.0%
	No livestock owned	18.4%	32.8%	51.2%
Financial capital	No formal or informal cash credit	–	73.3%	73.3%
	<u>or:</u> no cash gifts or remittances			
Social capital	No social support networks to offer help	17.4%	46.4%	63.8%
	Participation in no social institutions	4.2%	39.3%	43.6%

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**Notes:**

- (a) 'Poor' = Destitute + Vulnerable
- (b) Household labour capacity is totalled using a locally-adapted scale of conversion factors, based on individuals' actual ability to work. It thus includes working children, teenagers and the working elderly among the household's labour force, while excluding working-age adults who are severely disabled or chronically ill.

Scanning through these individual indicators gives a quick impression of the scale of poverty among the study population. Nearly 30% of households reduced consumption to one meal per day, or sometimes went a whole day without eating, at the height of the preceding hungry season (which was a relatively normal production year, not a food crisis). Nearly 13% are unable to farm ('no land cultivated' in the preceding season) in this heavily farming-dependent area where off-farm income opportunities are scarce and mostly generate very low returns.<sup>18</sup> Of those who are farming, more than 15% are cultivating less than half a hectare, far too little for self-sufficiency in this low-input rainfed farming system, even with optimal rainfall. Nearly one in five of the sampled households (18.4%) have no livestock at all.

Recognising the multi-dimensional nature of destitution (including a degree of substitutability among the different types of livelihood resource), we then constructed a composite index combining the objective indicators of basic needs and productive assets. The indicators were scaled, and weights were mathematically determined using principal components analysis (PCA),<sup>19</sup> which generated the statistics shown in [Table 11](#). Interestingly, control over livelihood resources clearly emerge as the most important determinants of a household's relative wealth status, ahead of all basic needs outcome indicators. *Livestock* ownership, access to *land* (cultivated rather than owned), and *labour* availability occupy 6 of the top 7 places in the ranking list, while the remaining indicator ('Participation in social institutions') is a measure of the household's social capital – yet another livelihood resource.

**Table 11. Components of PCA-weighted Destitution Index**

Rank by score	Variable	Mean	Standard Deviation	Score (weight)	Impact (Score /standard deviation)
1	Total livestock ownership	0.4001	0.32479	0.170	0.523
2	Oxen ownership	0.4295	0.40657	0.161	0.396
3	Cultivated land	0.5166	0.33732	0.157	0.465
4	Household labour capacity	0.5154	0.21931	0.144	0.657
5	Participation in social institutions	0.6611	0.27696	0.144	0.520
6	Male labour	0.7908	0.40684	0.133	0.327
7	Access to non-household labour	0.3963	0.48925	0.122	0.249
8	Basic expenditure	0.6688	0.33401	0.112	0.335
9	Meals per day	0.6315	0.33239	0.106	0.319
10	Months of food shortage	0.6654	0.30090	0.100	0.332
11	Clothing purchases	0.6863	0.32868	0.100	0.304
12	Farmland owned	0.5016	0.29231	0.096	0.328
13	Housing quality	0.6406	0.41461	0.091	0.219
14	Access to social support networks	0.5941	0.35393	0.050	0.141
15	Financial capital (credit +/-or gifts)	0.1559	0.26333	0.026	0.099

(SPSS output table, ranked)

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<sup>18</sup> Off-farm livelihood diversification is a major empirical and policy issue for Wollo. Its importance is recognised in the study and will be analysed in later research outputs, although it is not discussed further in this paper.

<sup>19</sup> PCA mathematically determines the weights for a composite index by extracting from the given set of variables those linear combinations which best capture the common information. In using PCA for this purpose we adapt the method used by Filmer and Pritchett (1998) to construct a household wealth index in India.

Having ranked all households in the sample according to their score on the composite index constructed from these weighted indicators,<sup>20</sup> we then examined the correlation between the index and our self-assessment indicator of dependence on transfers. The robustness of these two indicators in relation to each other can be seen in [Table 12](#). Fully 76% of the self-assessed destitute fall in the bottom 20% of the destitution index, and 95% fall in the bottom 40%. This suggests that there is a strong correlation between the two indicators. A chi-square test ( $\chi^2$ ) of association between the two groups – households in the bottom 14.6%, 20%, 30%, 40% and 50% of the overall index, and the 310 (14.6%) self-assessed destitute households – confirms this hypothesis. The chi-square test shows a significant association between the two groups at the 1% level (p-value <0.01 in all the cases from 14.6% to 50%).<sup>21</sup>

**Table 12. Self-assessed destitute compared to objective destitution index**

Composite Index \ Self-assessed	In bottom 14.6%	In bottom 20%	In bottom 30%	In bottom 40%	In bottom 50%	In bottom 60%	In total population
Unable to meet basic needs	201 (9.5%)	235 (11.0%)	267 (12.6%)	293 (13.8%)	302 (14.2%)	307 (14.4%)	310 (14.6%)
Able to meet basic Needs	1,926 (90.5)	1,892 (89.0%)	1,860 (87.4%)	1,834 (86.2%)	1,825 (85.8%)	1,820 (85.6%)	1,817 (85.4%)
Coverage of self-assessed destitute	64.8%	75.8%	86.1%	94.5%	97.4%	99.0%	100%
P-value	$p < 0.01$	$p < 0.01$	$p < 0.01$	$p < 0.01$	$p < 0.01$	$p < 0.01$	$p < 0.01$

We therefore conclude that the two approaches – self-assessment by respondents of their current livelihood status, and the composite Destitution Index derived from 15 objective indicators of resources and welfare using Principal Components Analysis – are internally robust and consistent with each other. In order to combine them, we adopted the rule that destitute households are those that self-reported they were dependent on transfers to meet basic household needs and are ranked in the lowest 40% in terms of the Destitution Index. This is in keeping with standard practice in economics of taking the bottom 40% of households in an income distribution as the ‘poorest’, and at the same time helps to eliminate potential errors or misreporting by wealthier households of their true livelihood status. In fact, only 17 of the 310 self-assessed destitute households are eliminated by applying this rule, reducing the percentage of ‘destitute’ households from 14.6% (measured by self-assessment only) to 13.8% (measured by self-assessment and the composite index combined).

Interestingly, a breakdown of this finding by Administrative Zone (the lowest level of aggregation at which our sample is statistically valid) shows a clear geographical pattern, with the highest proportion of destitute households in the most northerly Zone (Wag Hamra), and the lowest in the most southerly (South Wollo): see [Figure 1](#). However, caution is needed in interpreting this pattern for policy and targeting purposes: the density and absolute size of population are much greater in the south, and there is some evidence that vulnerability has been rising there faster than in the traditionally more drought-prone north.

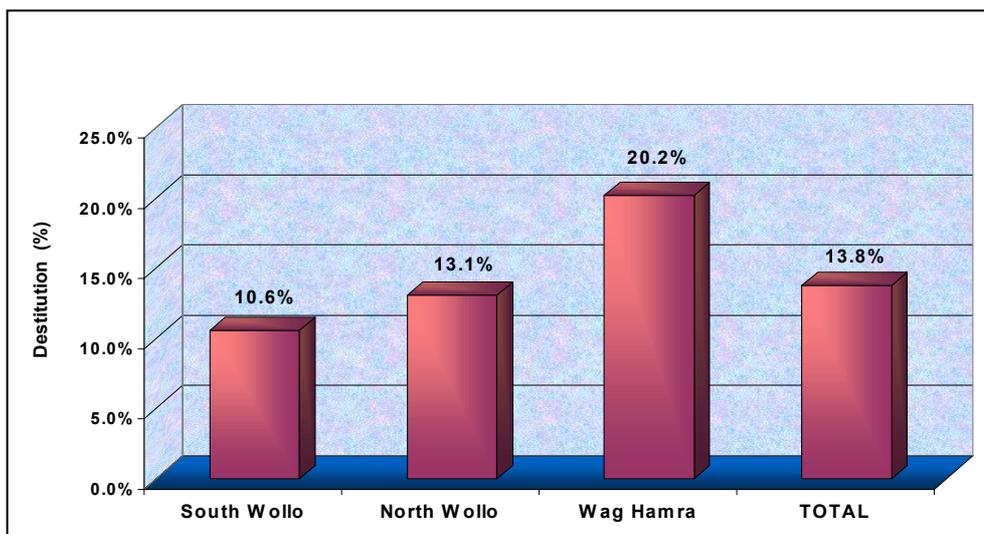
<sup>20</sup> The index was constructed using the formula:

$$D_j = \sum_{i=1}^k [w_i (a_{ji} - m_i)] / s_i,$$

where  $D_j$  is a standardised index (which we will call the ‘destitution index’) for household  $j$ ;  $w_i$  represents the weights (scores) assigned to the  $(k=15)$  variables on the first principal component;  $a_{ji}$  represents the observation for the  $j^{\text{th}}$  household on the  $i^{\text{th}}$  variable;  $m_i$  is the mean of the  $i^{\text{th}}$  variable; and  $s_i$  is the standard deviation of the  $i^{\text{th}}$  variable.

<sup>21</sup> If the p-value (exact significance) of the chi-square was > 0.05, the hypothesis of a significant association between the groups would be rejected.

**Figure 1. Geographical distribution of destitution (South-North by Zone)**



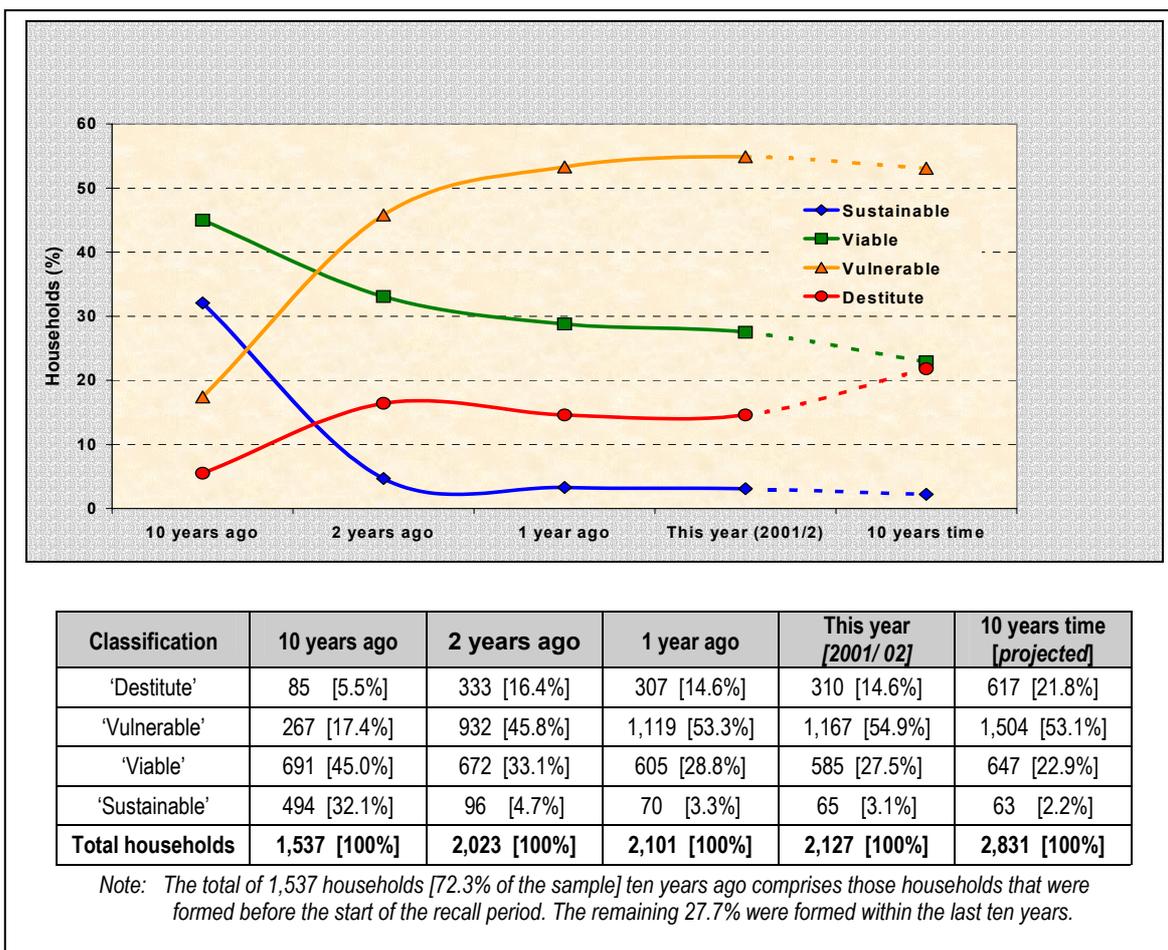
### ***Trends in destitution and vulnerability***

The previous section has given convincing evidence of the magnitude of household destitution and vulnerability, defined in terms of assets and livelihood outcomes, in the year of the survey (2001/02). Equally – perhaps even more – important are questions about the direction of change. We know that destitution, like income poverty, is not a static condition. Wollo, along with most of Ethiopia, has suffered another serious agricultural drought since our fieldwork was conducted: we can therefore assume that the same methodology applied in the following year would have produced a higher figure for destitution by most of the asset and basic needs indicators, as well as the level of dependence on transfers (specifically food aid). Does this represent merely a fluctuation from year to year, similar to fluctuations in current consumption between good and bad years or seasons? Or is there an underlying trend in livelihoods?

In the absence of longitudinal data on our indicators, the self-assessment section of the questionnaire included three recall periods: one year before, two years before, and ten years before the survey.<sup>22</sup> The results are shown in [Figure 2](#). The first stylised fact that emerges is that the incidence of destitution in the study area has risen dramatically during the 1990s, from a low of 5.5% ten years before the survey to a peak of 16.4% two years ago, dropping back a little (following two good rainfall seasons in most communities) to 14.6% in 2001/02. At the same time, the proportion of households who saw themselves as ‘doing well’ has collapsed in this period, from 32% in the early 1990s to just 3% in the early 2000s. A most important point for policy-makers to note is the rapid rise and high proportion of households classified here as ‘vulnerable’ (self-assessed as ‘struggling’), from 17% ten years ago to over half the population – 55% – today. The projections for ten years in the future are obtained through a Markov chain process, i.e. by multiplying the vector of categories today by the transition probability matrix. They predict that, if recent trends continue unchecked, destitution could reach 22% by 2012, while the proportion of vulnerable households remains fairly stable at its current high level as more of the viable and sustainable households slip downwards into vulnerability.

<sup>22</sup> The general reference period of “ten years ago” (1991/92) was a highly memorable time, when the overthrow of the Derg government brought the end of a long civil war, forced conscription, and various other constraints on people’s lives.

**Figure 2. Trends in self-assessed destitution and vulnerability in Wollo**



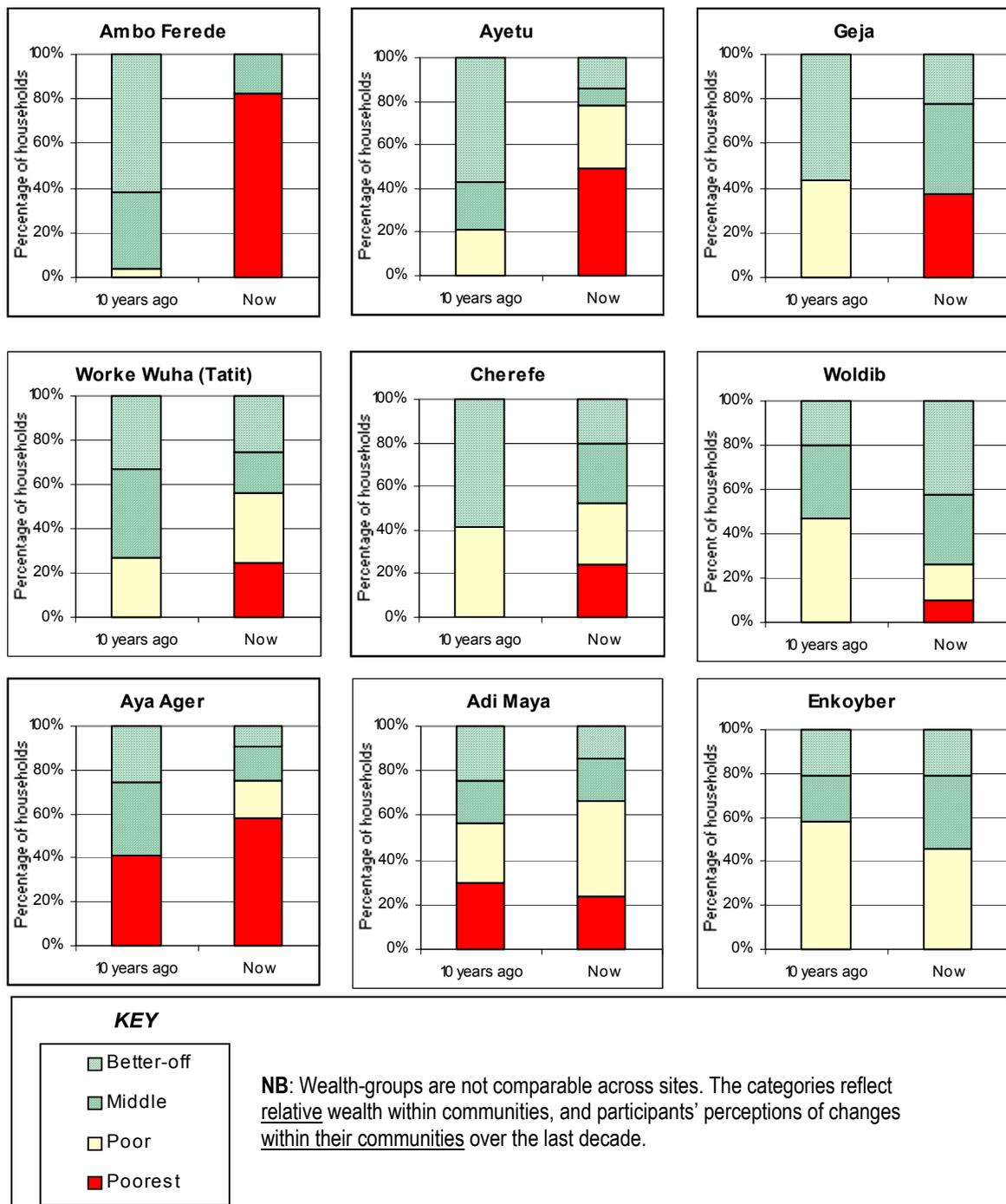
Independent PRA-based methods applied at community level in the nine qualitative sites confirm the broad consistency of villagers' perceptions of these trends over the past decade (although, as expected, there is also considerable local variation in prosperity and well-being). **Figure 3** summarises what participants in historical wealth-ranking discussions said about relative poverty and wealth within their communities, 'now' (i.e. at the time of the fieldwork in 2001/02) and approximately ten years before.<sup>23</sup>

In six of the nine communities, the proportion of poor households (the two categories described as 'poor' and 'poorest' in the summary graphs) was believed to have increased. Also in six out of nine places (shown in the top two lines of the figure), a new category of the very poorest has emerged. Their characteristics and the terms used to describe them vary from place to place, but there was a widespread feeling among the participants that the nature and depth of poverty has changed, that the poorest people now are worse off than the poorest people a decade ago, and that the same word 'poor' (*deha*) could not be used to describe them. The most extreme example is the village of Ambo Ferede, in the South Wollo Highland

<sup>23</sup> In this method, specific reference point events for "about ten years ago" were identified for each community from a time-line discussion conducted before the wealth-ranking. In some places this reference point was the local takeover by EPRDF forces, in others the most recent land redistribution. All the reference points were between 1990 and 1992.

Belg<sup>24</sup> 'food economy zone', where people reported that repeated rainfall failures since 1997/98 had completely impoverished the community through loss of livestock, debt, ill-health and distress labour migration, so that the new category of 'wuha anfare' (those who 'cook' water) now constitute 83% of the village. Even allowing for some exaggeration or bias, due to informants associating such discussions with food aid assessments, this is extremely worrying.

**Figure 3. Community perceptions of changes in wealth-groups over the last 10 years**



<sup>24</sup> The *belg* is the secondary rainy season nationally, but is the major production season for some highland parts of Wollo.

Equally important, and again consistent with the household survey, the proportion of households in the 'better-off' group was reported to have fallen in seven out of the nine places.<sup>25</sup> The typical level of resources among the currently better-off households (especially in terms of livestock, land, and capital for trading or lending) was also said to be lower than in the past. This erosion of resources among the relatively wealthy was frequently cited as a sign that whole communities are "sliding down". It has a significant impact on resource access and social support networks for the poor, as fewer and fewer neighbours are able to lend them plough oxen or provide informal credit, local employment, livestock for share-rearing, and grain loans or gifts.

The obvious methodological objection to both these methods of identifying trends (the quantified household self-assessment, and the case-study approach of community wealth ranking) is that they rely on recall, and may therefore be biased by a general human tendency to see the past in rosy hues compared to present problems. This is a valid point. Every effort was made to minimise such distortions by careful discussion and cross-checking during the data collection, and we agree that caution is advisable in interpreting the steepness of the trends emerging from our analysis. Nevertheless, given that the historical data needed for a more objective time-series analysis does not exist, we believe that these methods do in fact give an accurate picture of the direction of trends. Our reasons for this belief are, firstly, the internal consistency of the information generated by our fieldwork; and secondly, the corroborating evidence of available data from other sources.

Firstly, analysis of the self-assessment data from our questionnaire shows that people did not overwhelmingly class themselves as destitute, nor automatically say that things were getting worse. Three in ten households admitted to 'doing well' [n=65, or 3.1%] or 'doing just okay' [n=585, or 27.5%] at the time of the survey. A significant number of households reported that things had improved for them over the past ten years, although the balance of numbers was in the other direction. Follow-up interviews with a small number of questionnaire respondents found that their explanation of rises and falls in household welfare were usually consistent and reasonable: plausible explanations were given for household welfare going up (inheritance of assets, children growing up) or down (e.g. illness, loss of livestock, divorce). As mentioned above, [Figure 2](#) shows a dip in destitution the year before the survey, corresponding to objective reports of improved harvests, which further supports the plausibility of the data.

The reference period of ten years ago was not, generally, seen as a particularly 'golden' time by people in our study area. Although at the national level the civil war had recently finished and conscription had ended, the impacts of this were uneven in Wollo (where northern areas had been under the new government's control for some time). Land redistributions between 1989 and 1991, combined with the return of villagers from forced resettlement areas and army service, had caused recent uncertainty and even conflict in some places. Except in some former guerilla strongholds (such as Ziquala in the far north-west) there is little evidence that expectations from the new government were particularly high among the villagers of Wollo: the 'post-war euphoria' effect observed in other countries was not a major factor here. During time-line discussions in the nine qualitative research sites, very few villagers reported that the years between 1990 and 1992 had been particularly good times for their communities: most people regarded them as average or below average.

Secondary historical information on assets and livelihoods in Wollo is limited, but what little there is tends to confirm the perception of our informants that there is a secular downward trend in the local economy. For example, the Chronic Vulnerability Index (CVI) was developed by the national Early Warning Working Group to provide a rolling baseline for food security

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<sup>25</sup> The two exceptions, interestingly, are both close to small but rapidly growing towns and recently improved roads.

monitoring at the *wereda* (district) level.<sup>26</sup> It combines available secondary data on risk and coping indicators including livestock numbers, land availability, food and cash crop production, the percentage of population needing emergency relief, food price variability and the risk of shocks such as drought. The initial baseline used average values for 1994-98. An update is now in preparation, using 1999-2002 data, including the new agricultural census.

"Preliminary results from the updated CVI exercise show an increase in the number of *woredas* scoring a 4 or 5 (most vulnerable) both nationwide and in the three zones studied. The 1994-1998 CVI indicated out of 27 *woredas* in the three zones, 18 scored a 5 (most vulnerable) while 2 *woredas* still scored a 3 (moderately vulnerable). Using the data from 1999-2002, now 22 *woredas* score a 5 and there remain no 3's. Nationwide the trend is similar with the number of 5's increasing from approximately 80 to significantly more than 100." (Kerren Hedlund, WFP-VAM Addis Ababa, *pers. comm.*)

The CVI indicators (and, indeed, most other economic data on Wollo) focus on the crop and livestock farming which is overwhelmingly the most important livelihood activity in the area. It may be argued that this neglects non-agricultural income sources: however, there is no evidence that such income sources have greatly expanded in recent years in response to the shrinking land availability and declining productivity in agriculture. Household livelihoods are certainly diverse, but they mostly comprise very low-return activities with limited, agriculture-linked markets. According to informants in our qualitative sites, some conditions for off-farm employment and enterprise have certainly improved in the past ten years (for example, greater freedom of trade and population movement; improved roads; and new construction work on government offices, schools and clinics). However, the number of people competing for such opportunities has also greatly expanded and always far outstrips the demand for labour. A similar conclusion about the very limited scope for sustainable livelihoods in Wag Hamra and North Wollo was reached by Holt and Dessalegn (1999:5). Apart from some seasonal agricultural employment, they find that:

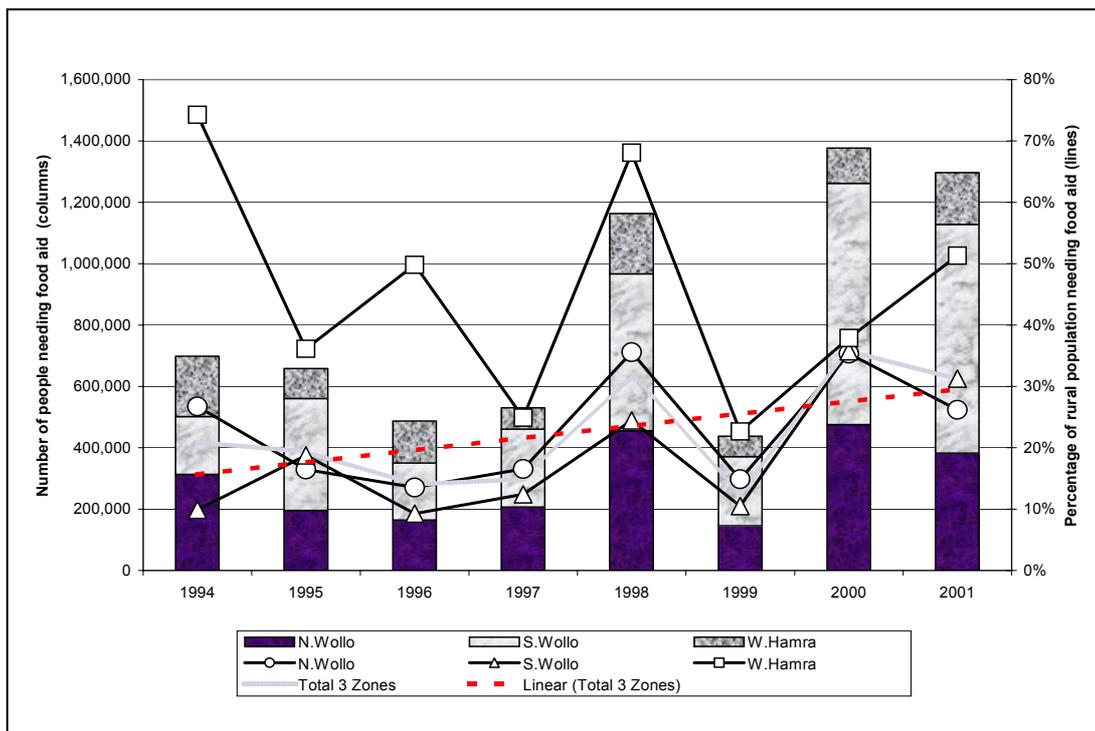
"off-farm cash-earning sources are meagre, with no large towns, let alone a city, and virtually no industry. For such opportunities people must travel far [...] Whatever local development initiatives may be undertaken, a sustained, general improvement in livelihoods is hardly conceivable alongside any increase in the number of people trying to make a living directly from the land."

Further evidence of a downward trend in welfare is provided by the annual food aid needs assessment figures, as charted in [Figure 4](#). The columns show the absolute number of people in each of our three Zones who were officially considered in need of food aid each year from 1994 to 2001, while the lines express the same figures as percentages of the rising rural population. Consistent with our geographical disaggregation of destitution, the figure shows that Wag Hamra had the highest percentage in need (though the smallest absolute number of needy people) in each of these years. Three striking observations can be drawn from this graph. Firstly, it is a stark reminder that hundreds of thousands of people in Wollo are considered in need of relief food *every year*, regardless of the rains or the harvest. Repeated 'emergency' operations are in fact serving the function of a welfare or safety net programme in the face of chronic poverty, a fact frequently commented on by donors (though the solution is yet to be found). Secondly, the variability of needs from year to year indicates how vulnerable this populous area is, in terms both of risk (given the erratic rains which determine not only local food production, but also most other income sources) and of coping capacity (given the scarcity of fallback options other than aid). Thirdly, the linear trend in the percentage of people needing food aid in all three Zones combined (the dotted line in the figure) shows an overall rise during this period. There is certainly no indication here of a dramatic fall in rural poverty.

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<sup>26</sup> The Early Warning Working Group is a group of technical experts, led by the government Early Warning Department and including the Ministries of Agriculture and Health, the UN (WFP/VAM), NGOs (SC-UK and CARE), and donor information systems (USAID's FEWSNet and the EU's Local Food Security Unit).

**Figure 4. Food Aid Requirements by Zone, 1994-2001**



Source: calculated from DPPC / WFP Historical Requirements data by Wereda

A final piece of evidence on poverty trends in Wollo is drawn from SC-UK's Household Food Economy (HFE) monitoring. [Table 13](#) summarises some selected parameters from HFE baseline assessments of seven Food Economy Zones within our study area. The methodology draws on carefully triangulated key informant work to build a picture of the household economy for an average or 'typical' household in each of the wealth categories identified by community representatives. These baselines refer to a 'normal' year – defined as the most frequently occurring conditions – in each area. As the table shows, the proportion of households considered 'poor' by these communities ranges from 30% to 60%: the variability between FEZs underlines how difficult it is to generalise even about Wollo, let alone the whole of rural Ethiopia, from a small number of sites. In three of the FEZs, key informants subdivided the poor into 'poor' and 'very poor' (with the 'very poor' comprising between 10% and 25% of the population). It is this very poor category, with minimal productive assets and high dependence on relief aid, which is most closely analogous to our 'destitute' group. Overall, the HFE data confirms the extremely low level of assets and livelihood options available to very poor households, most of whom – crucially – lack access to land and/or labour.

**Table 13. Household Food Economy baseline data for Wollo**

Food Economy Zone	Wealth groups		Livestock assets			Income	Food aid	
	Categories identified by key informants	% of households	Oxen	Cows	Sheep / goats	Household cash income (Birr / year) <sup>[1]</sup>	Relief as % of household food supply	% of population dependent on relief for ≥ 20% of food supply
South Wollo Woina-Dega Meher	Better-off	20-25	2	1	10-15	1,550	0	47.5%
	Middle	30	1	1	5	1,175	5	
	Poor	<b>45-50</b>	<b>0</b>	<b>0</b>	<b>5 (y)</b> <sup>[2]</sup>	<b>850</b>	<b>20-25</b>	
South Wollo Highland Belg	Better-off	20-30	2	2	6-10	1,500	0	40%
	Middle	30-40	1	1	5	950	0	
	Poor	<b>20-30</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>700</b>	<b>25</b>	
	Very Poor	<b>10-20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>400</b>	<b>25</b>	
North Wollo Highland Belg	Better-off	20-30	2	2	20-30	1,650	0	45%
	Middle	25-35	1	1	5-10	850	0	
	Poor	<b>20-30</b>	<b>0</b>	<b>1</b>	<b>5-10</b>	<b>800</b>	<b>20</b>	
	Very Poor	<b>15-25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>650</b>	<b>25</b>	
Abay-Tekeze Watershed	Better-off	15-20	2	2	10-20	1,725	0	47.5%
	Middle	30-40	1	1	5-10	1,020	0	
	Poor	<b>45-50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>700</b>	<b>27.5</b>	
North Wollo East Plains (woina-dega / mid-highland)	Better-off	15-20	2	2-3	4-6	1,780	0	47.5%
	Middle	30-40	1	1	2-3	1,430	0	
	Poor	<b>45-50</b>	<b>0</b>	<b>0</b>	<b>2-4 (y)</b>	<b>1,250</b>	<b>22.5</b>	
North Wollo East Plains (kolla / lowland)	Better-off	15	4	4-6	5-7	2,370	0	25%
	Middle	25-35	2	2-3	2-3	1,705	0	
	Poor	<b>25-35</b>	<b>1</b>	<b>1</b>	<b>1-2</b>	<b>1,440</b>	<b>9</b>	
	Very Poor	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>850</b>	<b>40</b>	
Wag Lasta Woina-Dega	Better-off	15-25	2	2	15-20	1,700	0	50%
	Middle	25-35	1	1	5	1,125	0	
	Poor	<b>45-55</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>750</b>	<b>30</b>	

Notes:

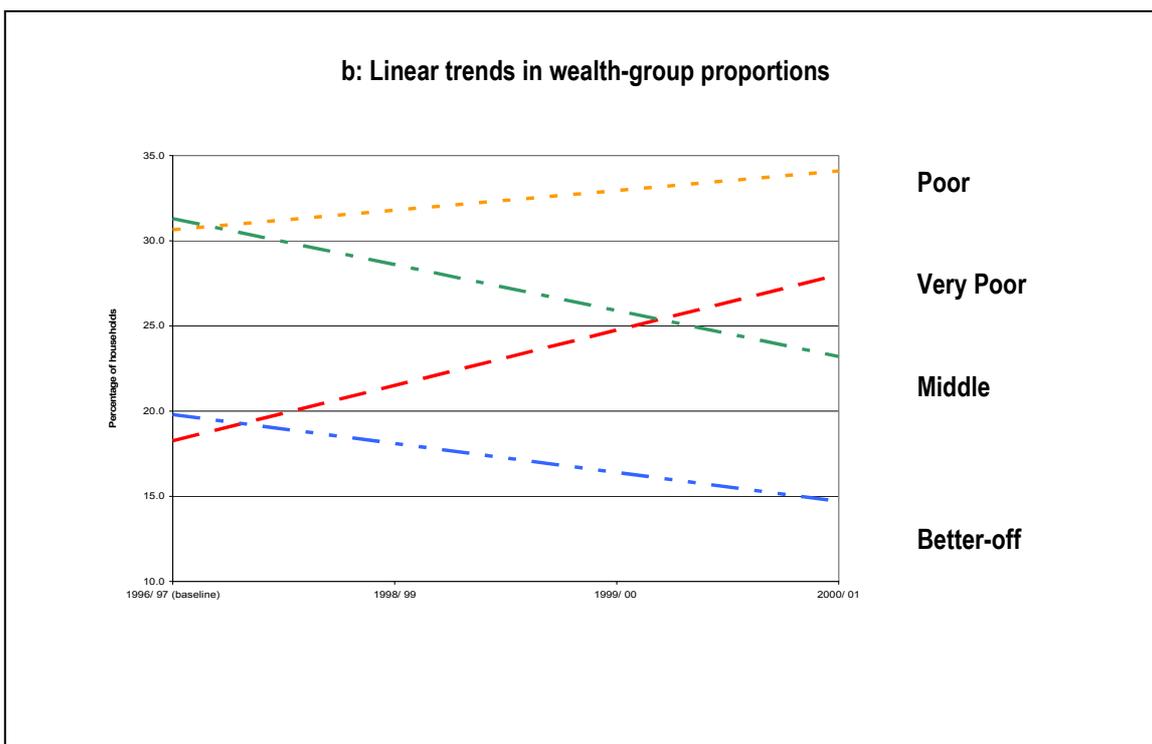
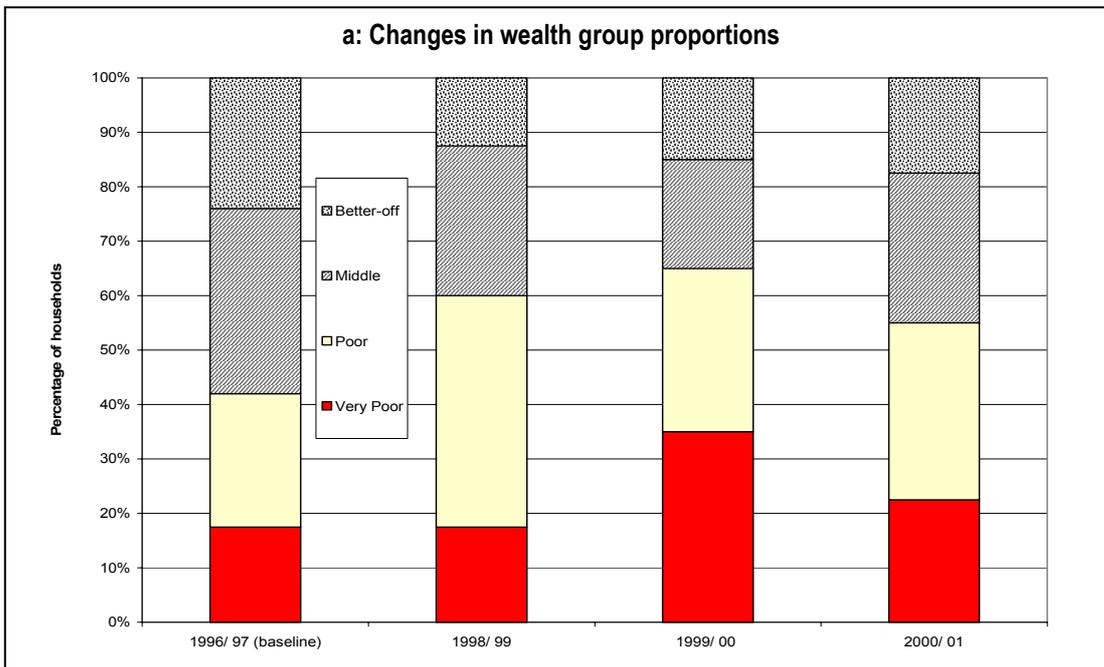
[1] Ethiopian Birr = approx. US\$ 8. "Cash income" includes money from the sale of crops, livestock and other produce, but does not include the value of items produced and consumed by the household.

[2] (y) = *yerbee* ("for rearing"), a share-rearing contract in which a poorer household rears livestock for the owner in exchange for a share of the milk and /or offspring.

Source: HFE baseline data (with thanks to Heather Kindness of SC-UK Ethiopia)

In recent years, SC-UK has been using the 'household food economy' methodology to monitor changes in livelihoods against these baseline parameters. Figure 5 shows the changes in wealth group proportions in one FEZ (the South Wollo Highland Belg), between the baseline year of 1996/97 and 2000/01. Although we cannot extrapolate from this information, it is striking that the linear trends (shown in the lower graph) match closely with the trends in our data. Again and again, through different methodologies and in different places, rural people in Wollo are telling us that the middle and better-off strata in their communities are declining, and that more and more households are falling into the 'poor' or 'very poor' category.

**Figure 5. South Wollo Highland Belg FEZ 1996/97 to 2000/01 (HFE Monitoring)**



*Compiled from SC-UK Food Aid Impact assessments (Mathys and Emebet 2000; Emebet 2002)*

## CONCLUSIONS

Official statistics and panel survey data indicate that poverty in rural Ethiopia fell sharply during the 1990s. Qualitative evidence and findings from the Destitution Study suggest that poverty and vulnerability are increasing in rural Wollo. How to explain this apparent contradiction?

One possibility is that the methodological foundations of some (or all) of these findings are shaky; certainly, each study has its own strengths and limitations. Another point to emphasise is that the conceptual and methodological approaches of the various studies are not directly comparable: they measure different things in different places at different times. Participatory assessments and the Destitution Study, for instance, give more prominence to assets and other non-income determinants of poverty than the income- and consumption-based surveys from which official poverty headcounts are derived. It is also probable that progress on poverty reduction is spatially patchy, with some sectors and regions spurting ahead while others are languishing or falling behind. Even within three zones of Amhara Region, the Destitution Study found substantial variability between survey sites, with remoteness and *Belg*-dependence being two variables that significantly affect poverty outcomes and trends.

A final possibility is that conditions have changed, so that poverty did in fact decline in the post-famine late 1980s and post-conflict early 1990s, but has subsequently slowed down – or even, in some places and in bad years – reversed. Early in 2003, the World Food Programme estimated that 11-14 million Ethiopians were in need of emergency food aid, following four consecutive years of drought that have raised the very real possibility of another famine. “With 20 percent of its people at risk, Ethiopia stands on the brink of a crisis similar in magnitude to 1984” (WFP 2003). The current food security crisis follows an under-reported famine in Somali Region in 1999-2000, which claimed up to 98,000 lives (Salama *et al.* 2001).

It is very difficult to reconcile these setbacks with the official narrative of rising prosperity in rural Ethiopia. In the face of the conflicting evidence presented in this paper, there are few conclusions we can draw with confidence; but clearly, poverty reduction in rural Ethiopia is not uniform, it is not universal and it is not linear. At the very least, generalisations about improving national poverty trends need to be complemented with a disaggregated analysis that reveals (rather than conceals) the large pockets of chronic poverty and a deepening livelihoods crisis in parts of rural Ethiopia.

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