

## RESEARCH REPORT ESCOR #7280

### Poverty and Survival Strategies in Ethiopia during Economic Reform

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#### Executive Summary

Our study examined the consequences of the economic reform programme on poverty and survival strategies in Ethiopia since 1989, with an emphasis on the rural economy. We used a very detailed household panel data set covering about 1450 households in 15 villages in rural Ethiopia, supplemented with some primary and secondary sociological and anthropological data. The emphasis has been on disentangling the effects of random events, such as good weather, from the effects of the reform programme. A key part of the study focused on six villages (or 350 households) for which we had detailed information from before the start of economic reform. Another part of the work focused on household vulnerability to consumption and nutrition fluctuations, and the implications for measuring and understanding poverty.

The literature on poverty changes and the link with economic reform is characterised by strong views and little data. Arguments often focus on whether observed welfare changes reflect reality, whether observed changes were caused by economic reform and whether the lack of reform would have resulted in even worse outcomes. Observed poverty changes over time may reflect random effects unrelated to policy. Also, in general reform is predicted to have differential impact, but aggregate analysis hides these effects.

By using detailed (and triangulated) micro-level data on food consumption over time as well as information on events and shocks, data and contextual information on the impact of macroeconomic change on the local economy and introducing some methodological innovations in the econometric analysis of the link between growth and poverty, we are able to overcome most some of these important shortcoming in the literature.

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Our main conclusions on the impact of reform in the period 1989-95 on the village economies studied are that in most but not all villages studied growth was substantial and poverty declined. We find that growth and poverty reduction are caused by similar factors, in particular increased crop output prices and increased returns to location and infrastructure. We argue that the crop price increases are closely linked to the reform programme, but that the increased returns to infrastructure

But the conclusion is not simply that growth has been pro-poor growth. It is correct that a substantial number of households observed to have very low food consumption (i.e. ranked as 'poor') before the reforms took hold managed to grow out of poverty. But a substantial number did not succeed in doing so. In fact, some even moved into poverty between 1989-95. It appears that households with reasonable levels of male labour, land, land quality, access to roads and not too far from towns managed to take advantage of the increased incentives. Such households accounted for virtually all the poverty reduction. But a number of households, typically with less land, poor quality land, limited labour, low education, living in remote villages, could not take advantage. Their consumption was hardly changed – indeed some faced even declining consumption in this period. Growth was 'pro-some-of-the-poor'. But this cannot be seen as a case to avoid reform. It was found that without reforms, poverty would have increased by a fifth in the total sample. Growth was useful, probably necessary, but not sufficient for poverty reduction. Complimentary policies are needed to ensure that households have access to the assets and resources to take advantage of improved incentives.

Another strand in our research was a study of the vulnerability to consumption and nutrition fluctuations faced by households in rural Ethiopia. Most of the work on the impact of economic reform focuses on the effect on growth in mean welfare over time. However, households in Ethiopia face highly variable incomes, consumption and nutrition, linked to weather, illness and other shocks. A first consequence is that static poverty measures are misleading. In our work, we have documented the problems with poverty measures that do not take this intertemporal variability into account. Using careful quantitative techniques, we found that the population at risk of low consumption is 50 to 75 percent higher than what cross-section poverty measures show. Furthermore, we found that human capital and access to roads and towns significantly reduce the fluctuations in poverty across the seasons. This is consistent with a higher ability of these households to bring diversity in their livelihoods. Finally, the safety net currently operating in the form of food-for-work and food aid distribution has only a relatively marginal effect on these vulnerable households, at least in the areas studied.

### **Policy and practice issues addressed by the research**

Since 1988, Ethiopia has gradually moved from a communist-inspired controlled economy to a more market-based economy. From 1992, these reforms became part of a structural adjustment programme sponsored by the IMF and the World Bank. In this research, we have tried to analyse the consequences of the economic reform programme on poverty, with an emphasis of the rural economy.

The economic reform programme in our research has been defined as a programme effectively dismantling some of the control regime on the economy. It includes the

liberalisation of food markets, the end of the discouragement of the private sector, exchange rate devaluation leading to an auction system and (after 1995) the gradual liberalisation of fertiliser markets. Given the particular circumstances of the reform programme in Ethiopia, these reforms did not include a large reduction in public sector expenditure nor was it accompanied with any macroeconomic stability. Indeed, if anything has been striking in this period is the macroeconomic stability, reflected in relatively low inflation and a fairly stable exchange rate.

The relationship between economic reform, growth and poverty remains one of the most contentious policy questions. Much has been written on this issue, but surprisingly, most have been based on limited data. A further problem in this literature is that linking economic reform to the welfare outcomes of households is problematic. The problem is that many other factors may affect welfare over time, and they are not easily disentangled. Examples are climatic conditions or events affecting specific communities and households. Finally, and linked to this, statements such as ‘it would have been worse if reform would not have taken place’ are often heard in defence of reform programmes, but usually without any ability to assess this claim.

The research has used a relatively small but very detailed data set to address the standard problems in interpreting the evidence. Since the data were panel data, i.e. from the same households from before and after the start of the reform programme, we can get a more reliable picture of the varied experiences of households in a period of reform. Since we have detailed data on shocks and events affecting the households in this period, beyond reform, we can isolate the effects of random effects from the responses to the economic reform programme. In this way, we can also more reliably answer the question of what would have happened if no reform had taken place.

A second strand in our research has been related to a study of an important characteristic of rural livelihoods in Ethiopia: high vulnerability to shocks and events, including over the seasons. These factors are reflected in high fluctuations in consumption and nutrition outcomes. Policy analysis dealing with poverty issues using quantitative data (such as for example the World Bank sponsored welfare monitoring activities in Ethiopia) has been correctly criticised for the lack of attention to vulnerability issues. Although it is often suggested that this lack of attention to these issues has mainly to do with using quantitative data, we argue that this is not correct. Once detailed information about the evolution of consumption and nutrition is available, a more comprehensive view of the extent of vulnerability and the implications for poverty analysis can be obtained. Our study provides this view, showing that shocks and events result in large movements in and out of poverty (defined as consumption below some minimal requirements) over time. An important implication is that static poverty measures, or changes in poverty aggregates over time are misleading, since they hide important variety in experiences of households.

### **Assessment of the literature relating to these issues**

#### *On growth, poverty and economic reform*

Much has been written on the consequences of structural adjustment on growth and poverty (Cornia et al. (1987), Sahn (1994, 1996), Demery and Squire (1996)). More in general, new evidence on the role of growth on poverty alleviation has revived the debate as well (Ravallion and Datt (2000), Dollar and Kraay (2000), Srinivisan

(2000)). Most studies appear to acknowledge that data remain a problem. Systematic micro-level evidence on both growth and poverty after market reforms take place remains limited.

Methodologically, this study differs substantially from other studies in the literature (for reviews, see Lipton and Ravallion (1995), Azam (1994)). Ignoring the many studies using flimsy and non-comparable data sources, some studies limit themselves to outcome indicators at different points in time and use a macroeconomic narrative to argue that observed changes are the consequence of the policy changes (for one such study, see Demery and Squire (1996)). A criticism against these studies is that cannot separate the effects of the reforms from other factors, such as external shocks or simply the lagged consequences of past recessions. Computable general equilibrium models can avoid these problems, by allowing the impact of different counterfactual scenarios to be evaluated. Sahn (1997) presents a collection of such studies; earlier attempts are in Bourguignon et al. (1991). A drawback is related to the immense data requirements for them and the strong structure that needs to be imposed on such models, resulting in questions about the realism involved. Other studies are sectoral in nature and provide detailed evidence on the effects of reforms on particular and activities. Examples are the multimarket studies (Braverman and Hammer (1986)) or the studies on food and other markets (e.g. numerous studies by Michigan State, including in Ethiopia). These studies provide important evidence but may not easily make conclusions about the overall welfare effects.

By using comparable data sets over time, more detailed analysis is possible, not just of outcome indicators, but also of other factors. For example, Grootaert (1995) uses detailed socio-economic characteristics to check whether in different periods of the adjustment process in Côte d'Ivoire the evidence is consistent with reforms driving the outcomes. Still, the data available were not easily linked to the reforms, limiting the interpretation of the findings.

Generalising about the effects on poverty of macroeconomic and market-oriented reforms is difficult. Measures such as devaluation or liberalisation have *a priori* ambiguous effects on welfare (Kanbur (1987)). For example, a real exchange rate depreciation increases prices to the tradable goods sector relative to the non-tradable sector, but the effect on welfare for particular groups will depend on whether their earnings relative to their consumption will depend more on goods from one sector relative to the other. If the poor produce or earn a wage from tradables, while they mainly consume non-tradables, then they would benefit. However, whether this indeed characterises the poor cannot be stated in general (Lipton and Ravallion (1995)). Furthermore, reforms, as those in Ethiopia, involve many measures, including internal market reforms, affecting different households and regions differently. Finally, even if market prices move favourable for particular households, the net welfare effects of these price changes depend on the functioning of other markets. De Janvry et al. (1991) have analysed and illustrated using simulations that the supply responsiveness to increased tradables prices is strongly dependent on whether any factor and goods markets are missing or work imperfectly. Clearly, to understand the effects of general macro-level measures on households, a careful and local analysis of both relative price movements and local market functioning is needed.

We think that in our study we have made an important step forward in the analysis of the impact of policy changes on growth and poverty. By using detailed panel data we have both direct evidence on poverty changes but also on a number of measures, which can be directly linked to the economic reform programme, particularly local level output price changes. Furthermore, by having access to detailed data on shocks affecting households and communities, we can effectively control for the effects of these factors, and conduct some counterfactual analysis ('what if?'). Careful econometric analysis allows this to be done.

*On the relationship between quantitative poverty analysis and vulnerability*

In the last two decades there has been a rapid increase in the availability of large data sets for quantitative poverty measurement in developing countries. As a consequence quantitative poverty measures based on consumption or income are available for most countries and used for a number of policy purposes, which include constructing poverty profiles (e.g. Boateng et al. (1992)) and making international comparisons. The standard quantitative approach to poverty measurement is not without its critics, not least from other social sciences (for a discussion, see Booth et al. (1997)). In any case, an important shortcoming of most of the standard poverty studies is the lack of an inter-temporal dimension, so that important questions cannot be addressed. These include whether there is any change in living standards in the society studied? Are the same households poor in each period or are there large movements in and out of poverty? What role do shocks and events play in determining poverty outcomes? We ask to what extent are observed levels of consumption and poverty caused by short-run risk and vulnerability? How does seasonality affect poverty? Surely, being measured to be poor in a particular period (i.e. during a survey visit) may inform policy makers relatively little about whether a household or individual is at risk of hunger whenever rains are poor or illness strikes.

In recent years, some comparable cross-section data sets as well as panel data sets have become available to start addressing these questions. In most panel data sets in developing countries, large year-on-year changes in poverty status are observed, with a substantial number of households moving in and out of poverty. For example, using income data over 9 years from the ICRISAT panel in India, Gaiha and Deolalikar (1993) report that about a fifth of households were poor in each year, but that only 12 percent were never poor – most households were poor for some time. Baulch and McCulloch (1998) report that in panel data from Pakistan about half the poor households escaped poverty by the next year, with only 3 percent of households poor in each of their five years of data. Ravallion (1988) introduced measures of transient versus chronic poverty. Jalan and Ravallion (1996) use these measures for China to determine the characteristics of the poor linked to transient versus chronic poverty.

Two weaknesses in these studies are addressed in the current work. First, these studies are generally ignorant about the reasons for the fluctuations in nutrition and consumption. In our study, the information on actual shocks experienced by households allows us to model the factors determining the dynamics and fluctuations in poverty, rather than focus just on the characteristics of households experiencing fluctuations. Secondly, this allows us to make more direct statements about poverty and vulnerability in terms of the population at risk – households faced with low

nutrition if negative shocks occur-, rather than a static and time-dependent measure of poverty.

### **Original objectives of the research, and changes during its course**

The research aimed to give an independent assessment of the effects on the poor of the current reforms and to recommend ways in which the survival strategies of the poor can be strengthened. In particular, we proposed to do the following (see original proposal):

- An analysis of longitudinal household and individual level data, combined with qualitative data, to investigate changes in welfare since 1989 in rural and urban Ethiopia, with an emphasis on the poor.
- To disentangle the effects of random events, such as good weather and other factors from the actual effects of policy reform.
- To investigate individual, household and community level survival strategies of the poor and the effects of policy reform on these strategies.

In terms of output we promised

- Methodological improvements in analytical tools for using household level data evaluate changes in policy
- Specific results on changes in welfare in Ethiopia and the factors behind those effects.
- The integration of specific quantitative data with data from anthropological and sociological work to study risk-sharing and survival strategies.

The research evolved in the course of the work in the following ways.

- First, and most importantly, the project initially included Mr Mekonnen Tadesse, the head of the Economics Department of Addis Ababa University. Sadly, he died unexpectedly in January 1999, not long after he had spent some time in Oxford working on the project. His input would mainly focus on urban poverty and was vital for some of the links with the qualitative work. His death affected our dissemination strategy. In all, however, we have been able to produce output consistent with our initial plans, although we had to focus on rural issues only (since most of the urban data were only accessible to Mr. Mekonnen). Beyond that, the impact on our dissemination activities has been rather more considerable.
- Secondly, while studying rural livelihoods we noticed that the extent of fluctuations of nutrition and consumption over the seasons and over time were more substantial. In our research, our attention shifted from a study of the way livelihoods are coping with the high-risk environment to a more direct study of the nature and extent of the fluctuations. The advantage was that we could make (we think) useful statements on the implications for thinking about poverty when using quantitative data. We have used the term ‘vulnerability’ to focus on these relatively short-run fluctuations in nutrition and consumption.
- Thirdly, the sociological and anthropological data collected in our survey sites by Dr Bevan and Dr Pankhurst informed our study substantially, but in some

of the outputs they feature less than originally anticipated<sup>2</sup>. Nevertheless, they provided the context for our work and some of this data was used in this way in our final study on the link between reform and poverty, for example to understand local practices in crop adoption or land tenure. In one study linked to the ESCOR financed project, the integration of data was most successful. It dealt with differences in vulnerability to shocks between husbands and wives within the household, the anthropological evidence on customary law on divorce and inheritance played a central role and was directly linked to the quantitative household data.

In all, our research can now be best characterised as consisting of two linked broad research topics:

- The link between economic reform, growth and poverty in rural communities
- Vulnerability and Poverty: the extent, nature and consequences of consumption and nutrition fluctuations in rural Ethiopia.

### **Methods used**

Our study has been mainly based on quantitative data, collected via household surveys with the active involvement of the researchers. In particular, the data are a panel data set covering, using 5 rounds collected since 1989. The survey initially covered six communities, with about 350 households. This original survey had been collected by the International Food Policy Research Institute, Washington D.C. (Dr Patrick Webb). In 1994, the households were traced with only 7 percent attrition (which is exceptionally low for panel data sets). The sample was then expanded to about 1450 households, covering 15 villages. In 1999, the survey was further expanded with another 3 villages. Data continue to be collected in the survey area, raising hopes for much more research on welfare changes. Attrition rates remain very low (below 5 percent, with many households re-entering the survey even if they missed a round). Most of the data set is available on the web.

The survey contains detailed information on consumption, income, demographic, land, agriculture, labour, wealth, health, education, off-farm activities and much more. The data were collected by the Economics Department of Addis Ababa University, where they are forming the basis for by now five doctoral dissertations and many more masters' dissertations.

Beyond the household data set, we used secondary data sources at the community level, such as information on rainfall, prices, infrastructure, climate, etc. We also used the data collected by Dr Pip Bevan (now Bath University) and Dr Alula Pankhurst as part of sociological and anthropological study in the same communities.

The analysis of the data involved extremely detailed data cleaning and triangulation efforts (needed for panel data work). The final results were typically derived using advanced state-of-the-art econometric techniques. Since we are using the quantitative household survey as the main database, poverty has been defined in terms of consumption (with corrections for household size and composition). Changes over

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<sup>2</sup> Note that a very interesting study topic, on the interaction between the household responses to reforms and the sociological and anthropological characteristics, was beyond the scope of our study, but should not be dismissed as irrelevant.

time are expressed in real terms. We are aware that using consumption as the basis for our welfare indicator is often criticised, not least by non-economists. Our use of consumption does not entail any strong view by the authors on the appropriateness of this rather than other indicators, including non-monetary, qualitative or contextual measures. However, given the need for an indicator that is linked to household income and nutrition, that can respond swiftly to changes in economic incentives (via income effects) but is nevertheless reasonably reliable (e.g. compared to income), consumption is an obvious candidate.

Furthermore, some triangulation reported in the research papers showed consistency of the findings with other data. These include subjective welfare change questions in the household survey, suggesting that perceived poverty went down between 1989 and 1995, and an observed strong improvement in school enrolment between 1993 and 1997.

Note finally that for our evidence regarding the consequences of fluctuations and risk on husbands and wives within the household, we used adult anthropometric data, which were available for some of the survey rounds (1994-95). Unfortunately, this non-monetary measure was not available before the second round of the data collection and not in 1989, so it could not be used for our study of the impact of the key reforms of the early 1990s.

### **Qualifications**

One of the main risks of our study is ‘overinterpretation’. The debates on the effects of economic reform and growth on poverty are highly charged. Evidence is quickly used by different parties to prove their case, without taking into account the limits of the results. We are confident that we have found some very interesting and important facts about the link between economic reform and poverty, and about the extent and nature of vulnerability in rural Ethiopia. However, one should always be aware that the sample remains relatively small. It is not a representative sample for Ethiopia, even though we think we have some of diversity of rural Ethiopia reflected in the data.

A second qualification of our findings has to be that despite our best efforts, we did not manage to fully disentangle the effects of the end of the war from the economic reform programme. The reason is that they happened at the same time, and to a large extent the consequences on rural markets were similar to liberalisation. The reason is that abolishing trade restrictions reduces transactions costs in trade, reducing margins via competition. Obviously, increased mobility due to the end of the war has also meant more movement of goods and people, and has reduced transactions costs. However, in our study, we are very confident that the crop output price changes are virtually entirely due to the reforms, due to the timing of the effects and the nature of the changes, which were fully consistent in all details with the effects of liberalisation. The observed increased return to infrastructure and location is harder to interpret – as argued in the papers, we think that the observed effects reflect both the peace dividend and the increased return due to liberalisation and related measures.

## Findings

Our key findings on the link between the reform programme, growth and poverty can be summarised as follows<sup>3</sup>:

- The economic reform programme resulted in large improvements in the terms of trade in five out of the six villages we studied between 1989 and 1995. Especially the improved crop output prices can be directly linked to the reforms. It is likely that some of the improved returns to off-farm activities in this period are also linked to the return to peace, allowing more trade and mobility.
- Mean food consumption increased in all villages. Poverty went down in this period in all but two of our study villages; in one of them poverty significantly increased. Consumption growth was (in total) about 32 percent; the poverty gap declined by 29 percent, over a 6-year period.
- A regression-based decomposition of the change in the poverty gap in its constituent parts revealed that about 17 percentage points of the decline can be attributed to the improved crop output prices, while 20 percentage points to the increased returns to road infrastructure and location. In short, factors linked to the reform programme seem to explain the entire poverty decline.
- Relatively poor rainfall in some villages and illness shocks reduced the poverty impact. If rainfall had been closer to normal levels in a few villages with poor rains in 1994-95, and if illness had been insured, then poverty would have gone down by 46 percent. This illustrates the importance of developing appropriate safety nets and insurance systems.
- If no reforms had taken place, the results suggest that poverty would have increased by up to 20 percent.
- But this does not mean that reform has been helping all poor to improve themselves. In most communities, some households experienced a fall in consumption levels or benefited not as much as others. Households, poor at the beginning of our survey period, appear to fall in two groups. On the one hand, households with reasonably good sizes and quality of land, with sufficient household labour, living not too far from roads and towns, possibly even educated. Although they were observed to be poor in the first year of the survey, they managed to benefit during this period quite a lot, resulting in large poverty reductions in this class of households. On the other hand, households with much poorer endowments in terms of labour, land, location and road infrastructure did not manage to take advantage of the better incentives.
- On top of this, as predicted by any careful analysis of the effects of market liberalisation and devaluation, not everywhere did crop output prices increase. In one village, characterised by high poverty, output prices declined, contributing considerably to increased poverty.

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<sup>3</sup> Stefan Dercon, "The impact of economic reforms on households in rural Ethiopia 1989-1995", forthcoming as CSAE Working Paper. Some of the underlying discussion is in Stefan Dercon and Pramila Krishnan, "Changes in poverty in villages in rural Ethiopia: 1989-95", forthcoming in book by Booth A. and P. Mosley (eds.), *The new poverty strategies: what have they achieved? What have we learned?* Macmillan, 2001. (shorter version of WPS/98.7)

To reach these conclusions, we had to think carefully about the methods available for such a study. This has led to some methodological innovations. First, the theory of poverty comparisons between individuals, over time or across space, requires that the underlying welfare indicator is directly comparable. In particular, virtually all the theorems in this respect (due to Atkinson, Shorrocks and other economists) require certainty about the comparisons. In practice, this is not possible. We derived the conditions under which clear answers about comparisons can be given and a simple graphical technique to do this. The paper documenting this is ready for submission for publication. Secondly, there is no direct way in the literature to link growth regressions directly to poverty changes. The decomposition technique we developed is both easy to use but very clear in terms of interpretation. A theory paper is being prepared for this.

During our research, we became very aware of the high vulnerability of the rural livelihoods, which remains largely not addressed by the economic reform. Having access to panel data provided us with a unique opportunity to document the scale of vulnerability and the consequences for our perception of poverty. The nature of the information available to us allowed us to make a unique study of household vulnerability to low consumption outcomes. This part of the study was implemented on the full panel of 15 communities (1450 households, 4000 adults), covering three survey rounds in an 18 months period. Since this panel is relatively short, it concerns short-run and seasonal fluctuations. The findings can be summarised as follows:<sup>4</sup>

- We find high variability in consumption and poverty, over the seasons and year-by-year. Econometric analysis suggests that consumption is affected by idiosyncratic and common shocks, including rainfall and household-specific crop failure, while households respond to seasonal incentives related to changing labour demand and prices.
- The fact that household consumption is sensitive to shocks means that a much larger number of households are actually vulnerable to poverty than typically recorded from the analysis of cross-section surveys. The fact that they are not poor in certain periods is related to favourable circumstances, but unfavourable weather and other shocks could well move them back below the poverty line. In our sample, we found that the number of households that we could predict to fall below the poverty line when serious shocks hit the household and community is about half to three-quarters higher than the poverty estimates obtained using the current cross-section estimate in each period. The number of vulnerable households vulnerable to low consumption outcomes is therefore much higher than the current poverty estimate.
- Human capital and access to roads and towns significantly reduce the fluctuations in poverty across the seasons. This is consistent with a higher ability of these households to bring diversity in their livelihoods.
- The safety net currently operating in the form of food-for-work and food aid distribution has only a relatively marginal effect on these vulnerable households, at least in the areas studied. While it increased consumption in some periods, access to food aid appears to be too irregular to reduce the vulnerability of these households.

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<sup>4</sup> Stefan Dercon and Pramila Krishnan, "Vulnerability, seasonality and poverty in Ethiopia", *Journal of Development Studies*, Vol.36, No.6, August 2000.

We extended this analysis further to focus on adult anthropometric data rather than consumption<sup>5</sup>. This allowed us to introduce the possibility of differential effects of shocks on men and women, i.e. differentiate in terms of vulnerability. The results can be summarised as follows<sup>6</sup>:

- We find that poorer households are not able to keep nutritional status smooth. Instead, we observed some of the highest fluctuations in BMI recorded in data sets.
- In general, shocks have similar effects on husbands and wives in most parts of the country.
- However, poor southern households do not engage in complete risk-sharing among married couples; women in these households bear the brunt of adverse shocks.
- We obtain estimates of the determinants of *relative* (long-term) nutritional status of husbands and wives within the marriage. We included in our analysis sociological information on perceived family background and background of spouses and anthropological data on local customary law regarding divorce and inheritance, land tenure rules, etc. We find that the wives' relative position is better if from a relatively wealthier background and by favourable customary laws on settlements upon divorce. We finally find that being a poor woman in the South increases the bias even further.

From a policy point of view, the work on vulnerability and poverty yields the following further insights:

- It is striking that the current reform programme is unlikely to have much if any impact on the extent of the fluctuations in consumption.
- The current safety nets available are insufficient to make much impact, while they are unlikely to address any of the specific gender-related problems reported.

Finally, the untimely death of our collaborator Mr Mekonnen Tadesse has meant that his work remains not completed. A draft paper by him and Stefan Dercon on the link between urban and rural poverty – one of the key outputs of the projects – was never completed, although some of his colleagues in Addis Ababa plan to publish it in a special issue of the Ethiopian Journal of Economics.

### **References (project output)**

The project output has appeared in the following papers, journal articles and book chapters:

Stefan Dercon and Pramila Krishnan, “Changes in Poverty in Rural Ethiopia 1989-1995: Measurement, Robustness Tests and Decomposition”, CSAE Working Paper Series WPS/98.7.

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<sup>5</sup> This research was a direct extension of the original work for the project, although strictly speaking had not been proposed as part of the ESCOR project. It is reported here since it yields useful findings relevant for the project.

<sup>6</sup> Stefan Dercon and Pramila Krishnan “In Sickness and in Health: Risk-sharing within households in rural Ethiopia”, *Journal of Political Economy*, Vol. 108, No.4, August 2000, pp.688-727

<http://www.economics.ox.ac.uk/CSAEadmin/workingpapers/pdfs/9807text.pdf>

Stefan Dercon and Pramila Krishnan, “Changes in poverty in villages in rural Ethiopia: 1989-95”, forthcoming in book by Booth A. and P.Mosley (eds.), *The new poverty strategies: what have they achieved? What have we learned?* Macmillan, 2001. (shorter version of WPS/98.7, not included)

Stefan Dercon, “The impact of economic reforms on households in rural Ethiopia 1989-1995”, forthcoming as CSAE Working Paper.

Stefan Dercon and Pramila Krishnan “In Sickness and in Health: Risk-sharing within households in rural Ethiopia”, *Journal of Political Economy*, Vol. 108, No.4, August 2000, pp.688-727

Stefan Dercon and Pramila Krishnan, “Vulnerability, seasonality and poverty in Ethiopia”, *Journal of Development Studies*, Vol.36, No.6, August 2000.

Stefan Dercon and Pramila Krishnan, “Vulnerability, seasonality and poverty in Ethiopia”, in Baulch, B. and J.Hoddinott (eds.), 2000, *Economic Mobility and Poverty Dynamics in Developing Countries*, Frank Cass: London. (book version of pervious paper).

All other references in this report are in these papers.

## **Highlights ECONOMIC REFORM IS GOOD FOR SOME OF THE POOR BUT NOT ALL.**

**Economic reform can provide higher returns to productive activities. Evidence using panel data from rural Ethiopia for 1989-95 finds that better prices and higher returns to infrastructure and location allow some of the poor to grow out of poverty. The net result was substantial local growth and a decline in overall poverty in six communities studied. But not all households can take advantage. Despite growth, we find that households with limited or low quality land and labour, or living far from roads and towns could hardly improve on their food consumption. Some even were worse of than before the reforms.**

Since 1989, the Department of Economics at Addis Ababa University in collaboration with the Centre for the Study of African Economies has been collecting panel data first in 6, later 15 villages in rural Ethiopia. The survey contains very detailed household level data including on consumption, income, activities, wealth, supplemented by detailed community level information. In the present paper, the link between the economic reform programme, growth in the local economy and poverty was investigated. The study focused on 6 villages, for which information was available from before the first wave of economic reform, comprising of food market liberalisation, the abolition of many rural taxes and devaluation. A detailed analysis of the impact of the reforms on the village economies provided the starting point for an econometric analysis of the determinants of growth in real income over time. An innovative decomposition of the effects of growth on poverty provided a clear link between reform, growth and poverty.

The research found that:

- Growth in the local economy outpacing growth in GDP per capita by several percent. Overall poverty also declined by about a quarter to a third over these six years – nevertheless poverty and deprivation is still at very high levels.
- The econometric analysis showed that similar factors caused growth and poverty reduction in this sample. More than half the observed growth can be attributed to increased returns to roads and location, while increased crop output prices contributed the rest. Poor weather in some of the communities and illness shocks were responsible for a substantial reduction in the growth.
- It appears that households with reasonable levels of male labour, land, land quality, access to roads and not too far from towns managed to take advantage of the increased incentives. Such households accounted for virtually all the poverty reduction.
- But a number of households, typically with less land, poor quality land, limited labour, low education, living in remote villages, could not take advantage. Their consumption was hardly changed – indeed some faced even declining consumption in this period. **Growth was ‘pro-some-of-the-poor’.**
- Finally, without reforms, it is predicted that poverty in the sample would have increased by a fifth.

The policy conclusions are that the link between poverty and growth should not be taken for granted.

- **Growth was useful, probably necessary, but not sufficient for poverty reduction.**

- Better incentives encouraged growth and poverty reduction in this sample.
- But for some, this is hardly enough: inclusive policies and interventions are needed to ensure that households have access to the assets and resources to take advantage of improved incentives. Note that these are not just safety nets.

The main results are from:

Stefan Dercon, “The impact of economic reforms on households in rural Ethiopia 1989-1995”, forthcoming as CSAE Working Paper.

Descriptive analysis in:

Stefan Dercon and Pramila Krishnan, “Changes in Poverty in Rural Ethiopia 1989-1995: Measurement, Robustness Tests and Decomposition”, CSAE Working Paper Series WPS/98.7.

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