LABOUR MARKETS, GENDER AND PRO-POOR GROWTH

PROJECT REPORT

SARA HORRELL
FACULTY OF ECONOMICS AND POLITICS,
UNIVERSITY OF CAMBRIDGE

JUNE 2003.

DFID PROJECT R7615

CONTENTS

Labour markets, gender and pro-poor growth : project report

Sara Horrell
June 2003.

Project code: R7615
Start date: 1 April 2000
End date: 31 March 2003, extended to 30 June 2003.

Budget: £206,013

Principal Investigators:
Sara HORRELL, Department of Applied Economics, University of Cambridge
Sidgwick Avenue, Cambridge, CB3 9DD
Paul MOSLEY, Faculty of Economics, University of Sheffield
Hazel JOHNSON, Department of Development Policy and Practice, Open University

Researchers:
Supriya GARIKIPATI, University of Cambridge
June ROCK, University of Sheffield
Arjan VERSCHOOR, University of Sheffield

Objectives

This research project seeks to understand the link between the labour market, poverty and potential policies for poverty alleviation in rural Africa and India by studying the formation of labour markets and the changing allocation of males and females between different time uses in four countries. Since labour is, in most countries, virtually the only thing which the poorest people can sell, a proper understanding of the functioning of the labour market provides the key to any workable measures for effective long-term poverty reduction.

The labour market has, of course, been intensively studied by development economists for fifty years (and is a pillar both of the 1990 World Development Report and the Report on poverty); but even the more recent literature does not go so far as to show how the supply and demand for male and female labour relate to the pattern of production, to the preferences which men and women attach to labour applied to different alternative uses, to the constraints on switching between these different activities, many of which are changing through time, and finally to poverty reduction itself. Importantly it also does not discuss the impact of changing gender ideologies due to, for instance, education on women's own labour market choices, the attitudes of their families and the preferences of employers. The focus of this project is to specify these relationships for one Indian province and a range of African countries and to show how an understanding of these relationships help to delineate the options for poverty reduction in a number of African and Indian rural settings.

Specifically, the project investigates:

(i) Nature of the labour allocation process for men and women

Supply
`Decisions to supply labour to different activities will depend not only on maximising the consumption bundle available to the household but also on the rewards for their labour that each individual can command. This allocation will be determined by bargaining between the

partners with their power in the bargaining process being underpinned by an exit option which defines the individual's welfare if the partnership were to break down.'
Thus the complexities of the labour supply decision will be investigated. This is done with regard not just to male/female choices but also in the context of whole-household labour options, including children, other relatives and remittances from those external to the household, and alternative uses of time such as working on own plots of land, reciprocal labour and small businesses.

Demand
Demand for cash labour is determined, given the wage rate, by the production unit's access to capital, the sector of production, the nature of the employment contract and market adjustment. With respect to market adjustment, wages do not always adapt to surpluses and shortages and/or do not reflect marginal productivities for men and women, therefore there is a need to consider the specific impact of adjustment on the labour market.

(ii) Sensitivity to policy and institutional changes

The following are likely to impinge on the operation of labour markets, and on the benefits which different income groups derive from them:
Technical change
Changes in crop mix
Increased capital market access and associated institutional changes
Policy changes impinging on capital-labour ratios (taxes, subsidies etc)
Policy changes that impinge on the relative attractiveness of male and female labour

The impact of such changes in the various countries will be discussed and, having defined the labour supply and demand functions, some estimate of the likely impact on labour supply of hypothesised changes can be gained.

(iii) Implications for poverty reduction

The desirability and likely impact of increased labour supply in the contexts studied will be considered and alternative routes to poverty reduction, for instance, improved farming technology, discussed.

The surveys

To address the issues outlined above comprehensive, structured household surveys were conduct in at least two regions in each of four countries: Uganda, Ethiopia, Zimbabwe and Andhra Pradesh, India. The survey was designed to investigate household structure, including extra-household links and obligations, household agricultural production, current time use and possibilities for changing the mix of time between activities; waged work, own production, housework and other; amounts and types of remuneration from various sources, ownership of assets and participation in support and extension services.

Within each region households were randomly selected although the person interviewed within the household had to be economically active so was likely to be younger than average and unlikely to be chronically ill. The sample was stratified so that up to one quarter of the interviews would be with the heads of female-headed households. The remaining three quarters were partnership households. In around two thirds of these the male head was selected as the respondent for the interview, in the remaining cases the female partner of the head of household was selected as the respondent. The interviews took a structured format using a detailed, pre-designed questionnaire the content of which was largely common across the four countries.

Much recent literature has highlighted gendered differences in responsiveness to new options that have been presented and has emphasised the role intrahousehold processes, such as bargaining and control over resources, may play in determining outcomes. Thus the survey investigated some forms of intrahousehold process, such as divisions of labour and control over income and expenditure, and paid particular attention to the different situation that may be found in female-headed households. At the time of these surveys data was also collected on labour demand and experiments on attitudes to risk among respondents conducted for the sister project on risk (see enclosure detailing some of the risk experiments carried out in Ethiopia). Additionally interviews relating to availability of credit and microfinance were conducted for the same project.

Analysis of the surveys for the country reports and for draft chapters of the proposed book (see outline) highlighted some issues on which it was felt additional, often more qualitative information would be useful. To this end, limited resurveys in the four countries were designed. The Indian resurvey picked up issues about seasonality, migration, risks of and responses to the drought situation encountered there when initially interviewing, and detail on demand for labour amongst these households. The African resurveys were more limited in number but explored some issues in greater depth. In particular, responses to food shortage, recent changes in labour market opportunities, including migration, changes in divisions of labour within the household, access to networks for purchasing inputs and selling output of agricultural activities, and the importance of wage earning were investigated in Zimbabwe. Similar questions were asked in Uganda and Ethiopia, but they also contained sections asking about attitudes to risk and the formation of social capital for the associated risk project.

Survey details:

	India	**Uganda**	**Zimbabwe**	**Ethiopia**
Region	Vepur, Mahabubnagar	Sironko township, Sironko	Chivi	Afeta PA, Mana, Oromiya
Characteristics	Drought prone, seasonal migration, grow paddy, groundnuts, jowar, 7 miles to town	Trading centre therefore non-agricultural labour opportunities. Grow maize and beans	Low-potential agricultural area	Crops: coffee, maize, teff. Nearest town 5 km
Region	Guddimalakapur, Mahabubnagar	Bufumbo, Mbale	Mutoko	Omo Beko PA, Goma, Oromiya
Characteristics	Drought prone, seasonal migration, grow paddy, groundnuts, jowar, 14 miles to town	Fragmented landholding, diversified crops: maize, beans, coffee, bananas, vegetables. Conservative Muslim area	Prime horticultural producer, granite quarrying and gold panning. Maize main crop	Crops: coffee, maize, teff. Nearest town 5 km
Region			Makoni	
Characteristics			Adjacent to large scale commercial farming areas and close to a large urban area so offering possibilities for labour mobility	
No. households surveyed	302	297	300	296
Partnership	255	266	225	235
Female-headed	33	31	75	61
Survey dates	July-Oct 2001	Autumn 2001	Dec 2001- Feb 2002	April 2002

Resurvey details:

India
302 households already surveyed re-interviewed in April to July 2002. Structured questionnaire administered
Zimbabwe
10 households reinterviewed in each of Chivi and Mutoko. Semi-structured questionnaire with scope for detailed responses administered to get qualitative impression of some issues emerging from previous quantitative data. Households selected to get sample covering partnership and female-headed households and those with different poverty profiles. Cluster interviews conducted on same issues with groups of people in villages. Resurvey conducted January to February 2003.
Uganda
34 respondents were selected for the resurvey. The sample was stratified so that 10 people were selected from each group of asset poor or income poor but who were achieving remarkably high yields for their crops (more than one standard deviation above the mean) and a control group selected at random from the four-way poverty profile classification, with four or five chosen from each category. This lead to 21 women and 14 men being interviewed. In addition people who had taken part in the earlier risk experiments in Sironko were retraced and asked questions about trust and social capital building, 87 out of the original 109 were reinterviewed. The resurvey was carried out in February 2003.
Ethiopia
35 respondents reinterviewed in Afeta PA using a semi-structured questionnaire. Concentrated on one area as this was where the risk experiments had been carried out so we had more information on attitudes of these respondents. 24 were male, 11 married females. Resurvey conducted March 2003.

Data

The data obtained from the four country surveys and the Indian resurvey have all been coded and entered into a computer package. They are available for analysis in the statistical package SPSS. The data from the African resurveys has been read and analysed.

Analysis

Country reports – main findings

Zimbabwe

- Extra-household ties were commonplace. Approximately one half of the households had someone living away from home who contributed to the household, one third had others who made a regular contribution to the household and over half had people away from they household for whom they were responsible. Often these links also involved remittances and flows of cash..On average one sixth of household income came from remittances, but equally frequently they could involve labour for agricultural activities, such as weeding and ploughing, and food was also often given or received. Flows of resources and ties of kinship clearly extended beyond the household interviewed and the nuclear family and remittances could take a variety of forms. Understanding and incorporating these complexities is essential if labour supply behaviour is to be usefully modelled.

- Most households (over 90%) owned some land and so the vast majority of respondents, both men and women, reported that their main activity was farming their own land. 82% of men, 90% of wives and nearly all female heads of households reported farming as their main activity. Men and women both spent 7 – 8 hours per day on farming as their main activity. Overall 95% of total household work hours at a main activity were spent working on the household's own land, and only about 4% was spent on any form of waged work or running one's own business.

- There was no striking gender differentiation in the crops grown according to whose land was planted nor for most agricultural tasks, although men tended to be responsible for clearing land. The most prevalent crops grown were maize, groundnuts, roundnuts, rapoko, cotton, and sweet potatoes. Maize was overwhelming cited as the most important crop to all households because it was the main source of food to he household. Cotton emerged as second most important because of the cash income it provided.

- Comparison of the production techniques and profitability of maize, groundnuts, roundnuts and cotton revealed differences between regions and households.In particular, female-headed households appear less productive than partnership households for maize and cotton. Costs of seed and fertiliser inputs per acre are somewhat above those observed for partnership households and yields are somewhat below, but the value of output and profitability fall even lower. These differences are too great to explain by relative costs or different production techniques and may point to relative powerlessness in market transactions so being less able to bargain for favourable prices or to get inputs of equivalent quality to those obtained by partnership households. In addition, female-headed households are more likely to have to hire draught animals, as they own fewer themselves, and are more likely to have to pay for these animals in cash. Conversely they are less likely to hire and pay for outside labour. Despite their disadvantages in producing maize, female-headed households appear to have an advantage producing groundnuts and roundnuts where they achieve higher profitability than partnership households.

- Regression analysis can inform us about the determinants of household time use in agriculture and can also indicate the responsiveness to changes in wage and income variables. Key factors considered important in determining the amount of time the

household allocates to agricultural work on its own land are hypothesised to be: the amounts of labour and land available to the household and the effective `hourly wage' (net value of crops grown/ (hours supplied by household + hours of labour of others outside the household)) the household can expect for each hour spent in agricultural activities. In addition, the types of crops grown, the amount used for subsistence, livestock and draught animal ownership are hypothesised to affect both income and `discretionary' time that might be allocated elsewhere. Income from other sources will also be an important influence on the time spent in agriculture. The results of this analysis indicate significant negative effects of the `hourly wage', being in Mutoko and being a female-headed household. The number of people in the household and the acreage of land owned had significant, positive effects on the hours the household spent farming its own land. Remittances from outside the household reduced hours in agriculture for female-headed households. All other variables were insignificant. The negative coefficient on the wage suggests a backward bending supply curve of labour, that is an increase in the hourly wage earned from agricultural activities reduces the number of hours supplied to own farm by the household. However, greater productivity in agriculture, as indicated by the wage, may encourage substitution out of agriculture into other remunerated activities, a response that could be tested using the individual time use data.

- The time budget data allows similar regressions to be performed on men and women's time use in a variety of activities and to consider substitutability between different activities. Again, for both men and women, the backward bending supply of labour to own agricultural activities in response to an increase in the hourly remuneration from agriculture is observed. Men also showed a negative response in the time they will put into other work if the `wage' rises. This may indicate that as the agricultural wage decreased men were more likely to spend hours working outside the family farm, a position which may suggest men are responsive to outside opportunities for work or, possibly, that work outside is undertaken as a response to poor agriculture. Women showed little inclination to engage in more or less other paid work as the agricultural wage varied but they were likely to spend more hours in housework the higher their effective wage in agriculture. Maybe once target levels of agricultural production are achieved, women are able to devote more time to other aspects of maintaining the family. This response has been observed in a variety of countries, both currently and historically, and has been associated with higher living standards and welfare for the household / family, although not necessarily for the woman herself.

- A number of households (about 30%) hire outside labour for their crop production, particularly for cotton production. However, most who employ labour feel there are risks associated. Mostly these problems relate to delays in the labour arriving and problems of supervising the labour to get them to do a reasonable job. Less frequently the problem was a lack of cash or food with which to pay the labourers. The availability of cash to pay labourers was an important determinant of the number employed but more important was the amount of work to be done, the acreage of land owned and the availability of labour within the family.

- Regression analyses were performed to consider the determinants of the number of outside labourers employed to grow crops (all labourers and just those that were paid for their labour in cash) and the number of labourers the household expected to employ next season. Explanatory variables were: household income from all sources, including the gross value of crops grown, the labour available to the household from internal resources and reciprocal or other arrangements with others outside the household, the households

assets and ownership of land, the region the household is situated in, the acreage devoted to growing maize, groundnuts, roundnuts, rapoko, cotton and sweet potatoes and whether the household was female-headed. Few of these variables proved significant with the exception of income, labour, and asset variables.

- Two main policy conclusions emerge from this analysis. First, it is not obvious that labour market solutions are the panacea to the problems of poverty in this context. Markets are thin and easily subject to disruption. Instead improving the profitability of farming own land through greater access to inputs, technologies, marketing and extension and credit services would have more immediate impact on household's living standards. Clearly in the case of Zimbabwe ensuring macro stability and the end of rampant inflation is key to achieving these improvements. Secondly, female-headed households appear disadvantaged in their access to these inputs and networks. As increasing amounts of land become farmed by women, through both migration of male household members and the decimation of households through HIV/ Aids, the necessity of ensuring they too can farm equally productively becomes paramount.

Uganda

- Extra-household links are important to the households surveyed. Nearly one third of the households had members living away from home, one sixth received regular contributions from people living outside the household and half had people living in other households for whom they considered themselves responsible.

- Most of the people surveyed (93%) were primarily farmers on their own land, only 2% were doing waged work only and 4% were doing other work or running their own business as their main activity.

- Over three quarters of the households keep livestock and the vast majority of partnership households with livestock own cattle. There were fewer households with livestock amongst the female-headed families, around two thirds, and less than half owned cattle. Cattle were mainly kept for their asset value although also used for draught, manure and produce.

- The median agricultural plot size was around 2 acres and the vast majority of the sample had 10 to 40 acres in total. Maize and beans were the most common crops grown but in Bufumbo a variety of other crops were also grown: coffee, tomatoes, bananas, cabbages, onions and carrots. However, there was less diversification of crops grown evident for the female-headed households.

- Demand for waged labour was positively correlated with higher average plot size, about half the sample used outside labourers and typically employed four people. Men, women, children and a few other household members also work on the household's land. A relatively high percentage of women do farm work in Bufumbo, a relatively high percentage of children do so in Sironko. Calculating the net income that some of the crops grown would yield if all the labour used were waged labour (for the median farmer) reveals that maize would be very unprofitable, and beans barely so, but that tomatoes and cabbages would be very lucrative crops. They are also labour intensive and currently grown by families that are sufficiently large to do most of the farmwork themselves.

- Considering a scenario where borrowing money to improve soil quality may also increase labour hiring shows that in the case of beans the investment in land improvement pays off, but in the case of maize an acre of fertilised land is even more unprofitable than an acre of unfertilised land. During the survey period, late 2001, most farmers were suffering from the low price of maize, it is important to remember that when crop prices are low conventional recommendations to farmers may be inappropriate.

- Less than half the households in Sironko and one quarter in Bufumbo have at least one member engaged in waged labour outside the household. The lower number in Bufumbo relates both to opportunities (there are fewer local big farms and fewer non-farm employment opportunities so most waged work is in Mbale which is 12km away) and the greater need for household labour to work the labour-intensive agriculture when vegetables are grown. Few households have more than one person working for wages. Waged non-farm work tends to be done by men and about four fifths of the waged labour undertaken is of this form. Both women and men work as farm labourers but their numbers are relatively few in our sample.

- There does not appear to be a huge untapped reservoir of potential waged labourers in the survey areas. Most of the respondents were farmers on their own land and were spending around 5 hours per day working this land. The rest of the day was spent in housework, looking after livestock and in repairs and maintenance. Very few of the respondents indicated that they would like to do more paid work.

Ethiopia

- Main activities were in agriculture, both growing coffee (by small producers and on state-owned plantations) and cereals. Over the past two years, following falls in international coffee prices, the producer price of coffee in the study area has fallen to less than 50% of its 1999 price. Respondents reported low coffee prices over consecutive years as the main risk to their income.

- The main cereals grown in the area include maize, the staple crop, wheat and teff – a labour-intensive, moisture demanding crop indigenous to Ethiopia. Teff commands the highest market price of all the cereals.

- Extension services for both cereals crops and coffee are available throughout the region, however, adoption of the packages by small-scale producers is very uneven. None of the respondents in the survey areas used the extension service, in all cases because the cost of the package was reportedly prohibitive.

- Demand for labour is related to coffee production and is highly seasonal. Both large and small producers demand labour at coffee-picking time and both men and women are hired. However, our respondents were unable to take advantage of the benefits of working for a large plantation (food, shelter and health services) because of distance and high cost of subsistence while living away from home, so are instead reliant on employment with local, relatively wealthy farmers.

- An absence of capital markets makes it difficult to start small enterprise initiatives and/or increase labour demand through investment in agriculture.

- Around 87% of the households surveyed had access to land on which to grow crops. Men largely worked on their own land and some women also did so, but the majority of women cited childcare and housework as their main activity. Maize is grown by all households both for consumption and for sale. Households produce about 4 months worth of food for their own consumption. In Omo Beko some households also grow teff as a cash crop and some vegetables are grown both for consumption and sale. However, the main cash crop is coffee, this is grown by all households and the majority of all landholdings are planted with coffee.

- Landholdings were small, on average 2.8 facasas (4 facasas = 1 hectare) and ranging from between 0.5 and 10 facasas. Married women have no access to land in their own right and typically work their husband's land.

- With the exception of vegetables, for which women often with the help of children have sole responsibility, there is a strict gender division of labour for agricultural tasks. Clearing land, ploughing and planting are all predominantly male tasks. In contrast, men, women and children carry out harvesting and weeding.

- Men are primarily responsible for the sale of coffee, while both men and women sell maize and teff. However, female spouses reportedly gave the income they earned from sales of these crops to their husband, while men kept the money themselves. In contrast, vegetables are the sole responsibility of women from land preparation to the point of sale.

- Landlessness is reported as a major problem in the survey areas and, among our households, around 13% had no land. These are disproportionately female-headed households but partnership households too suffer landlessness.

- In the study areas there is a severe shortage of oxen, which are the main form of draught power. Only 5% of households had the requisite pair of oxen and 82% had none. There is also a shortage of other animals. Only 13% of households owned cows and 2% owned goats. In the resurvey lack of oxen was cited as the main constraint preventing maximisation of agricultural production. Children are primarily responsible for the care of animals such as sheep, cattle and goats and men are largely responsible for the sale of these animals. The care and sale of poultry is women's responsibility.

- In Afeta PA 49% of households reported at least one household member that had engaged in paid labour over the last year. In Omo Beko PA this figure was lower at 27%, but in both study areas female-headed households were much more likely than their male-headed counterparts to be engaging in the labour market, 71% of female-headed households in Afeta. Although some households, mainly those without land, reported having household members that did daily labouring, such as mending fences or repairing houses, throughout the year, there are very few economic opportunities outside of the coffee picking season. Overall about 12% of men and 5% of women reported waged work as their main activity, mainly on farm.

- Waged work is primarily a male task. While most respondents stated that "women have to stay at home to do the housework and to care for children" in the resurvey, several respondents commented that it was "culturally unacceptable for women to do paid work". However, when asked how they would feel if their wife or daughter found paid work, 79% of male respondents reported that they would be pleased, which may suggest that attitudes towards women's participation in the labour market are changing. However,

only 55% of female respondents in the resurvey thought that their husband would be pleased if they found paid work.

- Waged work is generally associated with hardship and is seen by community members as `inferior' to farming. The vast majority of respondents in the resurvey, 75% of males and 64% of females, reported that they preferred to work and improve their own land rather than work for `good' wages.

- Taking the national income poverty line for rural Ethiopia 55% of the households in Omo Beko and 38% of the households in Afeta suffer poverty. The figure is much higher for the female-headed households in the sample at 81% and 55% respectively. About 90% of household income comes from agriculture and about 5% from waged labour in partnership households. In female-headed households the relative proportions are 75% and 15%. Landless households, of course, are largely reliant on income from wages, mainly earned by the man in partnership households.

India

- The two survey villages, Vepur and Guddimalakapura, have 1000 and 350 households respectively. 85% of these belong to the backward communities. Almost everyone in the villages is at least partially dependent on agriculture or associated activities for their livelihood and over 93% of the sample own some land. Landholdings are typically 3.5 acres. The Government suggests a viable landownership for a family of five is some 2.58 acres but in the sample over two fifths of households own less than 2 acres of land and many landowners in Vepur have to contend with scattered landholdings. The main crops grown are paddy, jowar, rag malt, castor and groundnuts.

- Although agriculture is very important in the survey villages people have diverse sources of livelihood. 57% of the male respondents reported farming their own land as their main activity, more than 20% worked for wages and the other main activities were looking after livestock (16%) and managing one's own business (7%). For women, more than 50% were working for wages, 25% working on the household farm, 7% ran their own businesses and 10% reported housework and childcare as their main activity. Comparing hours of work men spent 7.83 hours if they worked on the farm as their main activity and women spent 6.61 hours on waged work.

- Children are not a major source of labour for the household, nearly half have school as their main activity, about one fifth have no reported activity and approximately one tenth cite waged work as their main activity. Some also look after livestock. Other relatives are prevalent in these households and around one fifth of these do each of working on the household's own land and waged work.

- Some two fifths or more of agricultural output is consumed by the households themselves rather than sold. This means that in monetary terms farmers often appear to make only small profits, or indeed losses, on their agriculture when the costs of inputs are deducted from actual sales. This highlights the necessity of obtaining income from other sources, income from the farm and livestock constitutes only one third of household income. On average households in Vepur supply about 5 months worth of food from their own production, those in Guddi around 3.5 months worth.

- A lot of farmers depend on waged labour to supplement farm incomes, also available is a sizeable population of resident non-cultivating labour. Waged work is done by backward castes only. Most of the cultivating households employ some labour, nearly all households in Vepur, 85% of the Guddi households. For very small pieces of land demand for outside labour is zero, above these small plots demand increases with the amount of land owned. Also it is easier to employ labour for commercial crops than crops grown purely for own consumption.

- Most farming families usually supplement their income by keeping some livestock. More than 80% of households keep livestock, 65% own cattle (usually kept for draught power and manure as well as dairy products). Ownership of livestock not only supplements farm incomes but also allows diversification. Furthermore cattle and sheep are kept as an asset to provide insurance against bad times, however the efficacy of this strategy is questionable when drought is the main risk faced as then arable and livestock farming will suffer highly correlated risk.

- Waged work. Over four fifths of the survey households do some work for wages. Most of the 90% of households who come from the backward castes who are willing to sell labour (deemed a demeaning activity) therefore engage in the labour market. Both men and women supply labour, although women may be supplying considerably more. Demand for female labour is probably higher because of its relative cheapness; wages are about half of those for men and women are also paid less when remunerated in kind. However, despite this low pay waged work constitutes approximately two fifths of the average household's income.

- People also migrate to nearby towns or big cities in search of work because of the perennial drought conditions prevailing in the area. An organised market for migration exists and contracts often require the labour of both husband and wife. Migration is typically a seasonal phenomenon – people start to leave in October and return in June. Migrants typically own some dry land and hence cannot cultivate in the Rabi (dry) season. Again it is only those that belong to the lower castes that migrate. Most of these sources of employment are temporary so the labourers cannot depend on them for steady employment. Migration is one option these households use to cope with the uncertainties of incomes and yields arising from the drought situation, it was suggested that switching to alternative crops might be an alternative strategy but respondents pointed out alternative crops generally required more water and irrigation, not less.

- People in this area are increasingly turning to non-farm activities to smooth income fluctuations and reduce their exposure to risk from drought. This shift in livelihood has become possible with the advent of microfinance in Mahabubnagar. Rural women especially are encouraged to take up such activities through a State-initiated microfinance programme which helps women amalgamate into Self Help Groups for the rotation of savings and credit. Women in groups of 15 or so save on a monthly basis and after a year of regular saving become eligible for Government grants and bank loans. They are given loans without personal collateral, their collective savings act as the collateral. These groups lend internally both for micro-enterprises and for consumption purposes. Although many benefit from this, some find either their husbands appropriate the loans or the loan is needed to cover, for instance, expenditure on healthcare. This leaves the woman with the debt and no obvious means of paying it back, thus potentially worsening her welfare.

Comparative issues:
(see book outline for chapters from which this analysis is derived)

Poverty, risk and diversification

- We classify households by their economic position and livelihood capabilities. These dimensions, which we term their poverty profile, allows links to be made between the households' resources, the extent to which they can diversify their activities and the constraints this may place on risk taking. An eclectic range of income and assets are used to construct a two-way classification of households into poverty profiles: Income rich - asset rich; Income rich - asset poor; Income poor - asset rich; Income poor - asset poor. Income is essentially the sum of individual components of income from all sources to the household: agricultural incomes, wage earning, remittances from outside the household, income from own business, rental of equipment and any other activities. In addition, the use of crops, livestock and produce for own consumption is given a market valuation. Against these income sources are set the costs of production of crops: costs of fertiliser, seed, pesticide, land rental, draught power rented and paid for in cash or kind, and labour outside of the household employed to work on the land. A range of assets were considered from the physical (land, property, machinery, livestock, labour available to the household and health) to education to monetary, for instance, savings accounts. In addition a component was added to reflect, as far as possible within the confines of the available survey data, social capital. This captured the extent of economic interactions with other households and the household's involvement in and use of special programmes and extension services operating in the area. For each country an established poverty line was found and applied to the income range established above. When ranked by assets, the same proportion of households as found in income poverty, although not necessarily the same households, were deemed to suffer asset poverty.

- Approximately one quarter to one third of households were income and asset poor in all the countries surveyed, one to two fifths income and asset rich.

- Female- headed households were significantly more likely to be income poor than male-headed households in Zimbabwe, Ethiopia and Uganda. In Zimbabwe and Uganda, female-headed households were also more likely to be asset poor, thus compounding their relative poverty. In Ethiopia this was not so marked. Here female-headed households were just as likely to be asset rich as male-headed households, it was the lack of income that pulled these households into poverty. In India, female-headed households were slightly more likely to be income poor than male-headed households, but it was the lack of assets that underpinned their poorer status. However, in this country these differences were not found to be statistically significant.

- A variety of indicators were used to measure the household's ability to diversify and risk spread and were then related to the household's poverty profile. It is assumed that greater diversity allows more risk spreading and so lowers the household's vulnerability to the consequences of adverse shocks. This strengthens the household's ability to survive and protect itself from states such as chronic poverty. However, it ignores the benefits that may derive from greater specialisation.

- The indicators used were: the variety of remunerated activities undertaken by the household; the number of people in the household who ever do paid work; the variety of income sources to the household; the diversity of crops grown and livestock kept.

- In general, being income- and asset-rich allowed greater diversification in most areas. The exception was the number of members of the household who ever worked. In Africa, being income- and asset-rich protected household members from having to join the labour market. Being asset-poor encouraged this participation and labour market activity was, unsurprisingly, particularly evident in those households that were asset-poor but income-rich. In India, however, being asset-rich encouraged labour market participation, possibly a reflection of both relatively developed labour markets and greater educational attainment, which prompts households to develop and realise human capital.

- For the other diversity indicators, it was generally being asset-rich, rather than income-rich, which encouraged diversification in India. In Africa, some greater tendency to diversify if the household was asset-rich was evident but the evidence was not consistent for all countries across all indicators, in some cases being income rich encouraged certain forms of diversification. Thus the evidence on risk-spreading suggests no uniform pattern between diversification and the resources of the household. Instead, results are quite country-specific, emphasising the importance of income in some and assets in others, and linking to institutional factors such as the relative development of labour markets and average levels of human capital.

- Female-headed households tended to be less diversified than other households. Some of this was a result of the household's access to resources, i.e. being poor, rather than being a consequence of female-headedness per se. But some forms of diversification were limited by being female-headed, for instance, the types of livestock kept and the number of household members working in Zimbabwe. Overall then, being female-headed did reduce the household's diversification strategies and must thus increase their vulnerability.

- Only simple indicators of households' attitudes to risk were available but there was only limited evidence of these attitudes being related to the resources at the household's disposal.

- Summary: In Zimbabwe, both income and assets are important in allowing the household to diversify. Assets appear particularly important in protecting the household from having to send many members into paid work. Similar pictures emerge for Ethiopia and Uganda, although in these countries there is slightly more evidence of the importance of being income rich in achieving diversification in a number of areas. In contrast, in India the evidence suggests that much diversification is facilitated by being asset rich, income carries less importance. However, being asset rich does not protect, or prevent, the household from sending many members into the labour market as it appears to in the African countries studied.

Time use

- Data on time use was collected for each of the 300 households surveyed. For each household the respondent was asked what the main activity and how many hours were spent doing it in a usual day for each member of the household. This allowed us to develop a picture of household time use. In addition, we used the 24 hour recall method to ask what the respondent had done at hourly intervals throughout the previous day, thus getting a more detailed impression of the activities undertaken by men and women.

- In Zimbabwe all types of household member are found working, including children; in Ethiopia women are rarely engaging in work outside the household as a main activity; in India children don't work to the same extent and this may also be true of Ethiopia. Only in India are other relatives contributing a high percentage of total work hours.

- The vast majority of household time is spent farming own land in Zimbabwe. A bit more market orientation is evident in Ethiopia and considerably more in India, although, even here, only ¼ household time is spent in waged labour or other non-agricultural business, instead there is more diversification into livestock keeping. But also note these two countries have many more individuals engaged in housework as their prime activity. Overall, evidence of primacy of agricultural work on own land in the regions studied.

- Farmwork is done almost equally by the male and female partners in the household in Zimbabwe, there is less input by women in India and relatively little in Ethiopia. This follows the same pattern of work hours generally.

- Detailed time use supports the previous picture although the findings are more nuanced. There is some involvement of women in agricultural in Ethiopia, but they are spending more hours in housework, hence the classification of this as the main activity for many. In Uganda, men and women spend similar hours working on their own farm but women still spend more time in housework than agricultural work. Men spend the additional time working with livestock and doing other remunerated work. Note that women in Zimbabwe spend a lot less time in household chores than elsewhere. In small part this is due to a lesser involvement in water and fuel collection but mainly they are spending less time in cooking, cleaning and laundry chores. Again the lesser diversification into other forms of remunerated work amongst Zimbabwean couples is suggested, but there do seem to be greater possibilities for engaging in secondary activities in other countries – particularly amongst men in Uganda. The length of work day seems to be similar overall in Zimbabwe and Uganda but there is a greater diversification of activities within farming households in Uganda.

- Importance of subsistence agriculture. For these farming households the vast majority of their household income is earned from agriculture: approximately 4/5 income in Ethiopia, ½ in Zimbabwe. In the latter case income also comes from others outside the household and from other sources (not waged work), important sources are buying and selling products, crafts / trades, and manual work. So, although agriculture takes primacy in terms of the main activity and work time it does not necessarily follow that it is the main or most important income source. Households were asked how many

months food supply their agricultural production realised for the household. In Zimbabwe this was 9.5 months, in Ethiopia 4.25 months. Agriculture as a direct source of food is obviously important in both countries, but cash from agricultural sales is more important in Ethiopia. In Zimbabwe one's own farm is clearly a major part of family subsistence and it provides obvious safeguards against e.g. macro risks of high inflation, lack of supplies and collapsing markets.

- Waged work and running one's own business currently form an insubstantial part of household main activity total work hours in most of the African countries studied. This is particularly true of Zimbabwe. Even in the more developed labour market in India, only ¼ total household work time is spent in waged work or non-agricultural self employment. Where paid work is undertaken in Africa, the majority is undertaken by men. Women also contribute a reasonable proportion of the paid work time in Zimbabwe, but children and other relatives are more important in Ethiopia. In contrast, in India men contribute the fewest hours to paid labour. Instead women are the main participants, with other relatives and children also important suppliers of labour.

- Different patterns of diversification are evident. In Zimbabwe, where men engage in paid work women and children continue to put their labour time into working the household's land. Some 63% of total work hours are still farm work in these households. In Ethiopia, men who engage in waged work as their main activity do so because they are landless and this ensures that other household members also have to follow them into waged work or running their own business. In Ethiopia, waged work is clearly associated with an impoverished position.

- Overall, the current extent of waged work in rural African labour markets is very limited and there is little to suggest that it confers any substantial benefit to those that undertake this form of work in preference to farming one's own land.

- In the African countries studied female-headed households are prevalent and may be expected to exhibit rather different work patterns to partnership households. However, the similarities are more marked than the differences. Although female-headed households work fewer hours in total this is a result of their smaller household size and per capita working hours emerge as similar. In fact, this belies increased work effort from women and children as men can be expected to be putting in more remunerated working hours than most other household members, women and children appear to make up this deficit in the female-headed household. Overall, the female-headed household puts a similar proportion of working hours into its own farm but is less likely to be keeping livestock (and where animals are kept they are often tended by a relative rather than children) and is more likely to engage in paid work in some regions, dependent on the opportunities available. This waged work is more likely to be done by children than in the partnership household.

- Two main points therefore emerge in the African context. Being in a female-headed household may break down gendered conventions about men's and women's work in some countries. Most of the differences arise from the household lacking resources rather than from it being female-headed per se.

Labour supply

- A number of factors are likely to be important in determining the amount of time the household allocates to agricultural work on its own land. Key will be the amounts of labour and land available to the household and the effective wage the household can expect for each hour spent in agricultural activities. In addition, the types of crops grown, the amount used for subsistence, livestock and draught animal ownership will affect both income and `discretionary' time that might be allocated elsewhere. Income from other sources also will be an important influence on the time spent in agriculture. We compute the average hourly wage earned from agriculture by the family. This is done by computing the total value of output and taking account of additional sources of labour to the household by including hours contributed by others outside the household and bought in as paid labour when looking at total hours worked to compute the effective wage. From these variables we can determine household labour supply responsiveness to a change in the `wage', brought about by things such as changes in market prices of crops or switches to higher value crops, even though we can not attribute responses to specific individuals. Subsequent analysis of the time budget data allows further investigation of the choices made between alternative activities for men and women in the household.

- Regression analysis revealed that for partnership households in the African countries studied the two most important effects are the responsiveness to changes in the "wage" and income effects. In all countries the wage effect was negative, that is an increase in the hourly wage earned from agricultural activities reduced the number of hours supplied to own farm by the household. This implies a backward bending supply curve of labour and suggests that greater productivity in agriculture would not encourage more time in agriculture. However, greater productivity may encourage substitution out of agriculture into other remunerated activities, a response we cannot directly test for here.

- In no country was there a significant effect of the amount of income earned by the household from non-agricultural sources on the hours spent in agricultural activities. This would imply that households' agricultural work is fairly unresponsive to outside opportunities, but may also indicate a lack of these opportunities. Only in Ethiopia did the amount of maize retained for the household's own consumption have an effect on hours worked and here it operated to reduce hours spent in farming, possibly suggestive of reaching target yields or outputs for subsistence.

- The other main effects observed for the African countries were that the number of people in the household significantly increased the number of hours spent in agriculture by the household, reflecting the high commitment of all household members to working on own farm as the main activity and the lack of diversity of activities within these households, and greater ownership of land induced more hours of work from the household. This result is not unsurprising but it does emphasise the reliance on household labour for farming activities and suggests little substitution of outside labour for family labour.

- Only in Zimbabwe was the dummy variable for a female-headed household significant when all types of household were considered together, thus only in Zimbabwe can this type of household be seen as having some distinctly different

characteristics not already captured by the variables in the regression. The effect was negative, thus fewer hours were worked on the land in these households, possibly a reflection of having to find time to do other necessary household chores. Overall, female-headed households were generally not as responsive to the variables tested as partnership households, the number of hours worked were not responsive to the acres of land owned and in Ethiopia the number of people in the household had no effect on the amount of agricultural labour performed. However, female-headed households did work less if they could employ more outside labourers in Ethiopia, and may themselves have engaged in paid work elsewhere, and these households also worked fewer hours the higher the proportion of their income from remittances from those living away from the household in Zimbabwe. Most importantly, female-headed households also exhibited the same reduced effect on hours worked of an increase in the effective wage in agriculture as exhibited by partnership households and, in some countries, showed a tendency towards a more elastic response, suggesting the possibility of greater substitutability into other forms of work in female-headed households.

- The time use regressions for India were performed slightly differently to those for Africa. Here all households, whether or not their main activity was agriculture were included in the regressions and some of the variables subdivided to give a greater understanding of where differences in responsiveness occurred. In addition, variables reflecting whether the farmer was deemed progressive (using modern inputs e.g. irrigation, HYV seeds, fertilisers and pesticides), the cost of outside labour to the household (rather than amount of labour) and the cost of renting draught power (rather than just the amount used) were included in the regression. However, the results showed considerable similarities to those for Africa. In particular, a significant, negative response of hours worked in agriculture to increases in the effective hourly wage was observed. Seemingly a backward-bending supply curve of labour by the household to work on its own land exists. Hours increased the greater the acreage of land owned and the more people there were in the household. This last variable was subdivided to demonstrate that it was the numbers of men and women, rather than children and other relatives, in the household that created this effect. This is supportive of the earlier findings of the lesser importance of children as workers in Indian households compared with African households and the suggestion that other relatives may largely be expected to earn some income or contribute to household work rather than engage in agricultural tasks in these households. Interestingly, hours worked are more responsive to the number of females than the number of males.

- In contrast to the African countries, income from other sources was an important determinant of hours worked in agriculture and operated to reduce agricultural work time, as would be expected. However, subdividing the source of this non-agricultural income revealed that, although around 2/5 of this income was earned as wages, the waged income proportion had no effect on hours worked. Similarly more than 1/3 was earned from livestock keeping activities, but this income again had no effect on the time the household spent farming its own land. Instead, the much smaller amounts from other sources (about 18% of the total non-crop income) and remittances (about 4%) were incomes which operated to reduce household hours in agriculture. Clearly these sources were very important for those households in receipt of them and made a difference to their agricultural work activity. However, it may be the case that households with limited agricultural resources were having to rely on other sources of income, such as family members migrating for work or running their own small business, rather than these sources `buying them out' of agriculture. The

insignificance of the effect of quite substantial amounts of waged income on agricultural work suggests a limited amount of substitution occurring between farm and labour market work with these areas of activity being quite distinct and separate.

- Finally, the more `modern' the farm the more likely the household is to put more hours into agricultural work. In particular, using modern inputs and being more progressive increased farm time, employing more outside labourers also required more time from the household, possibly for supervisory activities as well as conducting their usual tasks, and if the household does not own draught power it spends less time in farm work, that is the more reliant the household is on renting in draught power to work the land the less time it will spend in agriculture. Thus, despite the negative responsiveness to the effective wage, there is evidence to suggest that households do find it lucrative to devote more time to agricultural work if the technology used can be raised and the activity conducted on a larger scale.

- Information from the time budgets was used to consider men's and women's time use in various activities in a usual day in Africa. In particular, we were concerned to see how the individual's time in agriculture, livestock keeping, housework and other work is affected by variables such as the `wage' in agriculture, the income to others in the household, the number of others in the household and the amount of time they spend working on the household's agricultural land. This is done for African countries for male partners whose main activity is working on their own land and for female partners whose husband's main activity is working on their own land. Although these are all respondents to the survey, so are not men and women in the same couple or the same household, it is expected that the unobserved partners would behave in much the same way as the same-sex respondents and thus we have a feel for the way in which couple's time use might interrelate. Finally, women in female-headed households who work on their own land were also considered.

- Where significant, male partners' work in agriculture showed the already established negative response to the effective wage rate and little responsiveness to other sources of income in the household. Greater land ownership increased men's hours worked in agriculture, whilst more land left fallow, predictably, reduced hours. In Ethiopia men's hours in agriculture increased with the number of outsiders employed, possibly suggesting the necessity to devote time to supervising the additional labour, and in Uganda having more people in the household released some male hours from agriculture, but the more time these others spent on the farm the more likely the man was to be found working alongside them. Men's time spent in other work suggested very different patterns in Zimbabwe and Uganda. In Zimbabwe, there was a negative relationship between the wage that could be earned in agriculture and the number of hours devoted to other work. Thus as the agricultural wage decreased men were more likely to spend hours working outside the family farm, a position which may suggest men are responsive to outside opportunities for work or, possibly, that work outside is undertaken as a response to poor agriculture. In Uganda the reverse was true. Here the better the wage in agriculture the more likely the man was to undertake other work. This may be suggestive that as agriculture becomes more productive men are released from subsistence production or that adequate labour is contributed by other family members thus releasing the man for alternative work. Overall there is some indication of retrenchment in Zimbabwe and the possibility of expanding beyond the domestic economy in Uganda.

- Female partner's time use was more varied with housework and other work emerging as alternatives to agricultural work for the woman. Women again showed a reduction in hours in agriculture in response to an increase in their effective agricultural wage. This effect was particularly marked in Zimbabwe and may indicate the extent of subsistence agriculture, which women may be keen to substitute out of once certain necessary levels are reached. In Ethiopia women were less likely to work in agriculture the more outside labourers were employed and the more draught power available to the household. Again in Uganda more people in the household reduced the number of hours women devoted to farming, but if these others worked in agriculture the woman was likely to put in more hours alongside them. In neither Zimbabwe nor Uganda was there much evidence of women substituting into other work. The only factor that made this likely was having more people in the household, maybe they were able to substitute for the woman on the farm or in housework. But in both countries women were likely to spend more hours in housework the higher their effective wage in agriculture. This suggests that much of female work in agriculture is for subsistence needs and once target levels are reached the woman can devoted more time to other aspects of maintaining the family; a possibility that becomes less feasible as farm acreage increases in Uganda. Thus for female partners, release from household farming duties as the `wage' increases does not seem to result in the woman engaging in alternative remunerated work but, instead, allows her to devote more time to her family. This response has been observed in a variety of countries both currently and historically and has been associated with higher living standards and welfare for the household/ family, although not necessarily for the woman herself.

- Women who head female-headed households show little responsiveness to wage or income effects in their use or time either for agricultural or alternative activities. Instead their time use is determined more by the number of household members, which reduces time in housework and requires more time to be spent in agriculture in Zimbabwe, and the acreage of land farmed, which increases agricultural hours in Ethiopia. In Ethiopia however, the importance of subsistence agriculture is emphasised. The greater the household's reliance on its own maize production the greater the number of hours women devote to growing this maize and to other work. Overall though, women who head households seem less responsive to market variables than their partnered counterparts. This is possibly a reflection of greater pressures on these women to bear the responsibilities of maintaining the family and so allowing them fewer alternative options.

- The determinants of waged labour supplied to the market have so far only been investigated for India where such working is quite prevalent. Around half of the household's total work hours in a main activity are spent in waged work in India compared with 5 to 15% in the African countries. The dependent variable in this investigation is the number of hours of waged work done by the household as a main activity. Partnership and female-headed households are considered separately although a dummy variable reflecting female-headed households in the regression performed on the whole sample was not significant, suggesting that these households did not have a distinctive labour market participation pattern. For partnership households there is a positive a significant response of hours supplied to the market and the wage offered; households will respond to an increase in the wage by increasing the amount of time spent in waged work. As might be expected, income from all non-waged sources has a negative effect on the time spent in waged work. This implies that households that are not otherwise diversified are the ones that are

most likely to turn to waged work, possibly the labour market is the only livelihood the poorest can access. The structure of the household also has an impact on the amount of waged work undertaken. Greater numbers of adult men and, in particular, women imply more hours supplied to the market, but the numbers of children and other relatives have no effect.

- Overall, these descriptions provide a mixed and nuanced picture of men's and women's time use, income and remuneration streams and benefits. However, they do highlight some areas in which women are definitely at a disadvantage. But also important is the complex nature of the contributions to household labour and income. In particular, the role of extended networks of labour supply to and from households is evident and the contribution of children as an integral part of the constellation of workers within the household is highlighted.

Intrahousehold processes and bargaining

- An objective of the survey was to consider how processes within the household might affect outcomes. For instance, the bargaining literature suggests that women's position in the household may be enhanced by her threat point and outside options. Capacity to earn may improve her position and may have consequences for outcomes, such as fertility and expenditure decisions. But external factors may be mitigated by processes within the household and so obscure any mapping from external factors to observable outcomes. Such processes involve power in decision making and control over money and money can be used as a tracer to follow these routes. Here we follow money from crop sales, livestock sales and earnings through the household, firstly to see if this affects how money is spent and whether this might have implications for household welfare and, secondly, to investigate whether external factors do map onto household processes and whether this can then be seen to have implications for outcomes such as domestic divisions of labour and household responsibilities. Eventually we intend to use the indices developed to see if they help our understanding of labour markets and constraints within the household. Closer investigation of some of these processes and power relationships was carried out in the qualitative resurveys and will be developed in detail in the book chapters.

- In Zimbabwe, maize and cotton emerge as male crops in terms of decisions and activities relating to selling the crops and spending the proceeds. Roundnuts and, to a considerable extent, groundnuts emerge as female crops. The cluster interviews also revealed that gender played a pivotal role in deciding how much land to devote to different crops, men made these decisions. Women were more often given responsibility for spending the money realised than for making the sale, the wife ended up with the income from 68% of sales of crops, despite having made only 48% of the decisions to sell. No straightforward links emerged between control and expenditure. Where the sale of a crop is a female process the women are more likely to spend the money on the household than on agricultural inputs. However, where the money is handed to the woman she is more likely than men and women by whom the money is earned to spend this money on agricultural goods.

- Sale of cattle in Zimbabwe was largely a male decision and school and food are the main items of expenditure from cattle sales regardless of process. Both men and women sold chickens with negligible effects on expenditure patterns. In most cases people kept their own earnings and in most cases the majority of the money was spent on food regardless of who earned it or who kept it.

- Indices were constructed to reflect the external factors that might improve women's bargaining position within the household, the intrahousehold processes that might accentuate or attenuate these bargaining positions and the outcomes that result. External factors included things such as land ownership, labour market participation, wage earning and holding a bank account. Outcomes considered in the survey were access to spending money and leisure, more favourable divisions of domestic chores and a role in household responsibilities. Women in female-headed households were more likely to have external factors that would enhance her power than a wife and more likely to have outcomes favourable to her. Correlating the three indices for wives and female heads separately reveals that for female heads external factors do enhance the likelihood of having more female say in intrahousehold processes, but that this does not then translate into more

beneficial outcomes. Necessity rather than choice may dominate these outcomes to such an extent that it negates this link. For women in partnership households external factors do not seem to correlate with more female-oriented processes within the household, however, there is a positive correlation between the processes themselves and outcomes favourable to the woman.

- In Uganda two thirds of crop selling decisions and activities were undertaken by men but sometimes the money realised would be handed to the woman. Similarly two thirds to three quarters of livestock and produce sales were done by men, although women had more of a role in small animal and produce sales. For women holding a bank account or owning land was likely to give them more say in crop selling decisions but female labour market participation appeared to have little effect. Female processes (that is where the woman takes the decision to sell, makes the sale and keeps the proceeds) seemed to result in expenditure that was more likely to be on investment goods, for instance, crop-related, livestock or own business, than if the sale and use of money was a male process. Otherwise there were few distinct differences in expenditure patterns by who had control of the money. Women had more responsibility for household decisions such as crops grown, seeds bought and borrowing money, where they had control of money and, conversely, considerably less say where men had the money or the money was handed to the woman by the man. Therefore the Ugandan case presents some evidence that processes do appear linked to more say for women, but it is less obvious that external factors, such as whether the woman works for wages, lead to female-favourable processes.

- In Uganda it was found that women could enter the labour market and extend their entitlement set if their fall back position was good, for instance, if they were educated. Therefore labour supply choices could be empowering. But, if the fallback position was weak, then waged work tended to be a desperate foray into the labour market which meant competing for a low paid job, working for a pittance and extending the women's already heavy workload.

- In Ethiopia, waged work was often seen as inferior and entering the labour market was associated with hardship, but it varied with the household's wealth and assets. Again, gaining empowerment from work may be associated with a strong pre-existing fallback position. Men tended to keep both their own wages and those of any working children but the few women who did work kept their wages. In terms of agricultural activities, men made the decisions to sell, did the selling and kept the money from the sale in nearly all cases for coffee (95% in partnership households), in 68% of cases for maize and 50% of teff sales. In the remaining cases women often did the selling but the man made the decision to sell and the woman did not keep the money. Similarly men dominated the process for cattle and goat sales. Women took on these responsibilities in female-headed households.

- In India, men dominated the scene. They controlled the entire process of crop sale from taking the decision to sell, to making the sale, to keeping the money from the sale for 73% of total sales. In general there were no striking differences in how money was spent by who did the spending, although men were more likely to make agricultural input purchases, whereas women were more likely to invest money in livestock. This may be because women in partnership households have little control over land and crops but more control over their own livestock, particularly smaller animals such as chickens. Women also seem to have more responsibility for purchasing clothing for the family.

Women were more likely to keep their own wages than they were income from agricultural produce (44% of cases). Men only kept their own wages in 42% of cases, in the remaining cases they were usually handed to their spouse. However waged work in the villages was often associated with reduced power within the household for the woman. Women could often be worse off from working as it was seen to be inferior and it could particularly be associated with a reduction in the measures of power incorporated within the survey for poorer women. In most cases wages were spent on food but women were more likely to spend wages on children than men were. Correlating external factors, processes and outcomes for partnership households revealed that external factors correlated with the processes adopted within the household (most women achieved a low score on both), but neither the processes nor the external factors were correlated with the outcomes. Although women have little role in intrahousehold processes this does not result in a detrimental outcome for these women, women do not enjoy much power and responsibility in these households but they are not disproportionately burdened with chores because of this weak position.

- Overall it was apparent that there existed no easy mapping between external factors that might enhance women's power onto internal processes that might then affect observable outcomes. Instead household decisions and processes were more complex, warning against any general assumptions about, for instance, increasing involvement in waged labour leading to greater empowerment and improved welfare for women. This is supported by the observation of these processes within countries. In Uganda, India and, possibly, Ethiopia, entering waged work only benefits women if they are in a strong position within the household to begin with, in particular if they have strong pre-existing fallback positions which enhance their bargaining power. Factors such as education can be important here.

Concluding observations

- Work for wages: few of the sample are doing substantial amounts of work for wages from their households. The prevalence of this form of work is higher in India and Uganda than in Ethiopia and Zimbabwe and this is likely to be because markets are more developed.

- Labour supply: although there are strong indications that people might work less on their own plots if productivity is increased it is uncertain where this time will be reallocated – women nay chose to spend more time in housework although men might engage in other remunerated activities. There is no real indication that people have surplus time to allocate elsewhere, generally men and a lot of women are already working full days (7 – 8 hours) in remunerated / productive activities. Very few express any wish to engage in paid labour, instead preferring to be able to improve their own agriculture.

- Labour demand: few households are demanding labour in the African context. Although demand does increase with income and acreage, shortage of cash is only sometimes cited as a reason for not employing some or more labour. Instead problems of supervising labour (which takes time), getting quality labour and getting labour to arrive at the prime time for the activity (crucial for good yields) are the main issues. Possibility without a culture of wage dependency employers are unlikely to get the required commitment and reliability from hired labour.

- Agriculture: there is a shortage of oxen for draught power and manure in Ethiopia and seeds and fertilizers in Zimbabwe. These shortages are major constraints preventing rural households achieving even reasonable productivity. There also a shortage of credit/loans in these places. It would seem imperative to resolve these problems before recommending labour market options. There is some evidence that engaging in horticulture is more lucrative for households than grain production. However, this cultivation does seem to require more secure and better inputs, such as greater amounts of household labour and irrigation, which therefore make it hard to recommend a switch from staple production. In general, people are keen to improve their plots and produce more profitable crops in preference to engaging in paid labour, to achieve this they require adequate and appropriate support and extension services. At the wider level the survey has emphasised the importance of macro-stability and shown the vulnerability of poor households to macro economic factors which affect their environment, for instance, high inflation, poor supplies and falling world price of commodities.

- Women and paid labour: when households do engage in paid labour the work is often viewed as `inferior' and only done by those in need, for instance, the backward castes in India, the landless in Ethiopia. Furthermore, far from being empowering for women the surveys produce some evidence that undertaking waged work can actually be detrimental to women's position within the household and, presumably, to her welfare. For instance, waged work is viewed as inappropriate for women in Ethiopia, is rather a desperate foray into the labour market in Uganda unless the woman is educated, and is associated with a reduction in say in intrahousehold processes and poorer outcomes in Indian households. These sorts of issues need to be investigated in more detail before a generalised policy of increased labour market participation to help women out of poverty can be advocated.

- Female-headed households: these households are in a more vulnerable position than other poorer households. As well as suffering lower income and asset ownership there is

evidence that female-headed households are less able to diversify activities, own fewer livestock (often essential for agricultural activities as draught power) and may be disadvantaged in acquiring inputs, such as seeds and fertiliser, both in quality and price, acquiring labour from outside the household and in marketing and selling outputs. They may also be less able to access support and extension services and credit. As the preponderance of this type of household will undoubtedly increase in African countries, the more impecunious situation of these families will mean that demographic change will cause a greater slide into poverty and much needs to be done to address the barriers to profitable labour that female-headed household face.

Dissemination

Discussions in country
Supriya Garikipati, November 2001, "What do clients and practitioners say about microcredit programmes in rural India, the case of two Andhra villages". Preliminary findings presented at the Faculty of Economics, University of Hyderabad, Hyderabad, India

Indian fieldwork undertaken by researcher students from the University of Hyderabad, Hyderabad trained in enumeration by Dr. Garikipati.

Sara Horrell and Hazel Johnson, January 2003, "Labour Markets, Gender and Pro-Poor Growth: Zimbabwe survey – interim summary report". Paper written for JIMAT consultancy for sharing with Government officials and practitioners, necessary for permission for second round of surveying.

Hazel Johnson, 2002/2003, extensive discussion of survey results with JIMAT Development Consultants, Harare, Zimbabwe.

June Rock, 2002/2003, group discussions held with peasant association committee members and with village elders. Interviews also held with local *wereda* officials, officials from the Ministry of Agriculture and the Department of Labour and Social Affairs, the General Manager of the Coffee Plantation Development Enterprise and with representatives of the World Bank, UNDP and DFID in Addis Ababa.

Fieldwork for Ethiopia undertaken in collaboration with Dr. Tegegne Teka, Regional Project Co-ordinator, Organization for Social Science Research in Easyern and Southern Africa (OSSREA), Addis Ababa.

Fieldwork for Uganda undertaken with graduates from Makerere University, Kampala who were trained in enumerating, interviewing and supervision of interviewers by Dr. Verschoor.

Collaboration with Richard Nalela, branch manager of Centenary Rural Development Bank, Mbale, Uganda in overseeing interview process and joint conference presentation on agricultural lending with Arjan Verschoor.

In Uganda, Arjan Verschoor held discussions with:

Mr. Tim Williamson, Outgoing technical advisor to the PAF and Fiscal Decentralisation, Dr. Martin Brownbridge, Macro-economic advisor, Mr. Graene Hansen, IMF advisor, Mr. D.A. Lakor, Commissioner, Economic Development Policy and Research Department, Mrs. Gladys Kizito, Economist at the Aid Data Unit/Aid Liaison Department, Mrs. Sylvia Nakzibwe, K., Programme Officer at the Uganda Participatory Poverty Assessment Project (UPPAP), Mrs. Robinah Rubimbwa, Consultant for Public Information and Mr. Mohammed Kabaale, Budgetary Officer all in the Ministry of Finance, Planning and Economic Development. Dr. Mandua Jacinto, Commissioner Clinical Services and Dr Amone Jackson, Medical Superintendent, Bwere Hospital, Kasese District in the Ministry of Health. Mrs. Tumusiime Rhoda Peace, Commissioner Planning in the Ministry of Agriculture. Mr. Godfrey Arnold Dhatemwa, Assistant Commissioner (Planning and Budgeting) of the Ministry of Education. Hon. Nathan Nandala-Mafabi, MP, Chairman of National Economy Committee, Hon David Wambi Kibale, MP, Member of Social Services Committee, Mr A.M. Tandekwire, Clerk to Parliament and Mr Edirisa Nseera, Parliamentary Budget Officer of the Ugandan Parliament. He also held discussions with Mr Robert Blake, Country Programme

Manager, World Bank; Mr Daniel S. Iga, Programme Officer, Royal Danish Embassy/Danida and Mr Anders Karlsen, First Secretary, Royal Danish Embassy/Danida; Mr Alain Joaris, Economic Counsellor, Delegation of the European Commission; Mrs Sara Nambuya, Uganda Microfinance Union; Mr Asaph Besigye and Mr Frank O'Brien, Agribusiness Development Centre; Mr Patrick Natanga, Uganda National Farmers Association and Mrs Mary Namanda, Mbale Women Entrepreneurs Association. Dr J. Okecho, Head of Credit, Mr James L. MacDade, Banking Advisor – Credit and Mr Richard Nalela, Branch Manager, Mbale branch of the Centenary Rural Development Bank Makerere University and Dr Marios Obwona, Senior Research Fellow (Economic Policy Research Centre) Makerere University. In addition, discussions were held with Mr Mwenyi Davis, District Planner, Mr Mudoma Abdul, sub-county chief Bufumbo, Mrs Modesta Nambuya, District Agricultural Officer, Mr Mundeyi Davis, Agricultural Officer, Dr Abwaimo Francis, District Director of Health Services, Mr Mandu William, Health Officer and Mr Fabiano Wakholi, District Education Officer of the Mbale Local Government.

Participation at conferences

Supriya Garikipati, May 2003, "Feminisation of Indian Agricultural Labour, the Case of Andhra Pradesh", Paper presented at Business History Society conference, Churchill College, University of Cambridge

Paul Mosley, May 2003, "The evolution of the market for female agricultural labour in three African countries, 1910-2002". Business History Society conference, Churchill College, University of Cambridge

Arjan Verschoor and Richard Nalela (branch manager of Centenary Rural Development Bank, Mbale branch), 'Fluctuating Crop Prices and Agricultural Lending', in *Agribusiness Development Centre (ADC) Conference on The Future of Agricultural Lending*, Kampala, Hotel Africana, 14 December 2001

Arjan Verschoor and Adriaan Kalwij (Department of Economics, University of Oxford), 'Aid, Social Policies and Pro-Poor Growth,' in *DESG Annual Conference 2002*, University of Nottingham,18-20 April 2002

Arjan Verschoor and Oliver Morrissey, 'Is Ownership a Meaningful Concept? The Evolution of Pro-poor Policies in Uganda', *Development Studies Seminar*, University of Sheffield, Department of Economics, 18 December 2002

Arjan Vershoor and Paul Mosley, 'Risk Attitudes in the 'Vicious Circle of Poverty'' in *IDPM Conference on Chronic Poverty*, University of Manchester, 6-9 April 2003

Working Papers

Supriya Garikipati, April 2002, "What do clients and practitioners say about microcredit programmes in rural India, the case of two Andhra villages".

Supriya Garikipati, May 2003, "Feminisation of Indian Agricultural Labour, the Case of Andhra Pradesh".

June Rock, June 2003 (forthcoming), "Uncertainty, the demand for female labour and poverty in Ethiopia".

June Rock, May 2003, "Interpersonal risk and social capital formation in Uganda, Ethiopia and India".

Other outputs

A country report has been written for each of the four countries surveyed and enclosed with this report.
The data collected under this project was also used as the input into the sister project on risk and uncertainty funded by DFID: "Risks, Incentives and Optimal Poverty Reduction Strategies". The researchers all spent much of their time providing data, both through the surveys and risk experiments and additional research conducted in the surveyed countries, and preparing papers for this project. The project on risk and uncertainty has been successfully completed and its outputs should be considered as a subsidiary output to this labour markets project.
Some examples of these are:
Humphrey, Steve and Arjan Verschoor (2003), 'Decision-making under risk among small farmers in East Uganda,' mimeo, DFID *Research Programme on Risk, Labour Markets and Pro-Poor Growth* (Sheffield, Nottingham, Cambridge and OU) (revised and resubmitted to *Journal of African Economies*) and
Humphrey, Steve and Arjan Verschoor (2003), 'The probability-weighting function: experimental evidence from Uganda, India and Ethiopia,' mimeo, DFID *Research Programme on Risk, Labour Markets and Pro-Poor Growth* (Sheffield, Nottingham, Cambridge and OU)
describe attitudes towards risk amog project respondents in detail. Their main finding is that our farmers follow a very different decision algorithm from the one normally found in experimental economics, which is a consequence of their being asset-poor and trying to survive in a volatile environment (specifically: their probability weighting function is S-shaped, whereas normally an inverse S is observed).
Mosley, Paul and Arjan Verschoor (2003), 'Risk-attitudes in 'the vicious circle of poverty,' mimeo, DFID *Research Programme on Risk, Labour Markets and Pro-Poor Growth* (Sheffield, Nottingham, Cambridge and OU) generalises this finding into a version of the vicious circle of poverty that is driven by risk aversion. These papers show that not only are our respondents time-constrained when taking decisions that affect labour supply and demand, but also they are 'constrained' by a highly cautious decision making algorithm.
MacDonald, Lindsay Chant and Arjan Verschoor (mimeo), 'Managing a commodity boom: lessons from Uganda's experience of soaring coffee prices in the mid-1990s', simulates the coffee boom of the mid-1990s; it shows that farmers' decision to *invest* their windfall profit helps explain a very substantial part of growth and poverty reduction in Uganda.
Lussier, Dominque and Arjan Verschoor (mimeo), 'Social capital and how it helps the poor' is based on the Ugandan resurvey. Social capital does not help the poor in our survey area: the Gisu are desperate to rebuild their society, join associations in their masses, but sadly re-enact the patterns of profound distrust within these associations that characterises life outside these associations. Labour market formation is hindered by all this.

Future output

We propose that the final output of this project be prepared in publishable book format. To this end, we have drafted a number of chapters and enclose a detailed outline of the book. In addition, a number of conference and journal papers remain to be written from the abundance of data collected and the research team expect to continue work on these papers over the coming months.