

SECOND CARNEGIE INQUIRY INTO POVERTY  
AND DEVELOPMENT IN SOUTHERN AFRICA

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Economic and demographic  
functioning of rural households:  
Mahlabatini District, KwaZulu  
by  
M V Gandar and N Bromberger  
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### INTRODUCTION

The main purpose of the survey of household incomes, consumption and expenditure briefly reported <sup>(1)</sup> here was to collect information which would be useful in planning a community development project in (or, at least, serving) a part of the Mahlabatini district of KwaZulu. Information is presented here with little reference to the applied context of its collection in the hope that it will contribute to the construction of a comprehensive view of incomes and life-chances in the rural areas of South Africa.

Fieldwork was completed in 2-3 weeks, commencing on 31 March 1981. Sampling was based on a random cluster system using up-to-date (1980) aerial photography. The sample unit was a household which was defined as the residents of a district group of huts. These residents may include a number of sub-groups such as the families of adult sons of the household head. Survey-forms were satisfactorily completed for 111 such households - constituting a sample of about 11% of the estimated resident population in the study area.

The vegetation of the area is predominantly grassland consisting of both Northern Tall Grassland and Highland Sourveld. The southern part of the study area near the White Umfolozi River contains bushveld which is probably transitional between Lowveld and Zululand Thornveld. This also occurs on some hillsides. All these types are described by Acocks (1975). Altitude varies from about 600m to 1 100m and rainfall from 700mm to 900mm per annum. The study area includes the Dlebe and Mkonjeni plateaux (900m) which have fairly high agricultural potential (Loxton, Hunting & Associates 1981)

The/.....

The area is genuinely rural. Vryheid, the nearest town with any real industrial character, is 80-90 kms away by road to the N.W. Local "towns", such as Mahlabatini and Ulundi, are small-scale. And Melmoth, essentially a service-centre for commercial agriculture, is about 60kms by road to the S.E.

#### 1. DEMOGRAPHICS AND EDUCATION

The KwaZulu portion of the study area consists of 170 km<sup>2</sup>. The occupancy rate for huts is about 1,49 persons per hut and applying this to an aerial hut count yields a population estimate of 8192 people, which is equivalent to a population density of 48 per km<sup>2</sup>. This high density is typical of rural areas in KwaZulu.

On average there were 8,1 people resident in the rural household and an additional 2,4 members who lived away from home. Household size showed considerable variability, ranging from 1 to 31, but nearly half the households had between 6 and 10 members in residence.

A mere 8% of residents were adult men while 69% of absentees were adult men. Among resident adults, women outnumbered men by more than 3,5 to 1. Over half of the households had no adult males at home.

The sex-and age-specific migration underlying the above statistics also results in a high dependency burden in KwaZulu (the number of persons between the ages of 0 and 14 per adult male between the ages of 15 and 64) which is a severe constraint on development. Our figures for dependency in the survey group (residents and migrants) are comparable to figures for KwaZulu as a whole, which is 2,7 while the dependency burden for the white population of South Africa, by contrast, is only 0,9 (Thorrington-Smith, Rosenberg and McCrystal, 1977). However if only resident household members in the survey are considered, the dependency burden appears to be of the order of 8. Of the total 554 adults (both at home and away) 209 or 39% were educated, where 'educated' means some schooling, no matter how little. A majority of these people did not reach secondary school and only one person graduated from university. Slightly more women than men were educated.

A third of the adults living in the rural area had received some education, although 80% of these did not go as far as secondary school. One household reported 5 educated adults in residence, but 44 of the 111 households reported having no resident educated adult. Of the resident adults who were educated 88% were women.

Levels of education had a positive correlation with absenteeism. The tendency for educated people to leave the rural area increased with education levels, such/.....

such that 91% of all those who reached standard 9 or better were absent.

The 'brain drain' is largely a male phenomenon: of the educated men 39% lived away from home, as did 92% of men with at least some secondary schooling. However 86% of educated women resided in the survey area, and level of education seemed to have little effect on rates of female absenteeism.

Training other than school is very rare among the rural residents. Only 5 of the resident adults had training: 2 teachers, a policeman, a nurse and a doctor (whether western or traditional was not ascertained). We have no data on trained absentees. Rural residents were also asked about skills which had been acquired, and the results are shown in Table 1. In general, relatively few people claimed skills which could, by themselves, provide an adequate and reliable income. A substantial number of survey respondents (47) were skilled in some form of sewing or weaving. 4 men listed building as a skill and the occasional person had some other trade skill. It is probable that the virtual absence of self-employed artisans relates to the prevailing low levels of income. If development were to occur one would expect the emergence of an artisan class in response to increased demand for their services.

TABLE 1 Distribution of productive skills among survey area residents  
(111 households: 70 resident men, 263 resident women)

Skill	Number of men	Number of women
Making clothes/sewing	1	21
Weaving grassmats	0	12
Weaving (unspecified)	0	13
Knitting	0	1
Driving	2	0
Building	4	0
Carpentry	1	0
Bricklaying	1	0
Shoe repairing	1	0
	<u>10</u>	<u>47</u>

## 2. AGRICULTURE

### 2.1. Law and livestock

In the strict sense this is not a landless population : 97% of households had/.....

had access to land and 81% had at least some cattle.

Only 3 of the 111 households reported that they had no fields. Not all fields however were cultivated. In fact 27% of the households reported that some or all of their fields were not cultivated (16% of the total number of fields). This was not in line with a deliberate policy of resting or fallowing the soil, rather it was the result of the operation of various constraints related to draught power, seeds and fertilizer, and drought. <sup>(2)</sup>

41 households (37%) had gardens, either homestead plots or plots in community gardens or both. The plots were cultivated mainly for vegetables, but homestead plots often contained some maize.

81% of households owned at least one head of cattle, the largest holding being 53. The mean holding was 8,35; 71% owned 10 head or less. 50% of households had holdings of small stock - mainly goats and (in the grassland area) sheep. <sup>(3)</sup>

## 2.2. Definition and measurement of agricultural production

65 households were questioned in considerable depth about the crops they had produced in the previous season (1979/80) and their egg and milk production during the last 12 months. (This had been a year of severe drought and 83% described it as a 'bad' year).

In what follows 'agricultural production' is restricted to refer to harvested crops plus milk and eggs. Sales and slaughterings of animals are measured separately. In the section on incomes we add this magnitude to 'agricultural production' in some contexts in order to estimate total income from agriculture - but it needs to be identified separately because we do not have sufficient information about the changes in the size and value of herds and flocks to estimate 'income' from them at all exactly. <sup>(4)</sup>

## 2.3. Crop production

Crops fell into 4 basic classes: cereals, beans, cucurbits and other vegetables. Figures for the value of production of these crops are summarised in Table 2, as are figures for the production of eggs and milk.

Maize meal was the staple diet and maize was the largest single item of crop production. Average maize production was 4,5 bags per household. 92% of households did not produce the minimum household requirement of about one bag per month. 35% obtained nothing or negligible amounts (one bag or less). 13 of the 65 households produced sorghum, with a total crop of 13 bags. Not much sorghum is planted, which is surprising given the apparent advantages it has over maize. <sup>(5)</sup>

Three/.....

Three types of bean crop are grown locally under dryland conditions. They are a convenient non-perishable crop which can be stored dry. Compared to cereals they are quick-growing : double cropping is possible in good years. 37% of households obtained at least some bean crop although sometimes only a 'basin' or two.

Cucurbits (pumpkins and melons) are drought tolerant and require relatively little attention. They may be interplanted with other crops and store better than most vegetables. 21 households cultivated a vegetable plot (see above). The main vegetables produced were cabbage, spinach, tomatoes and potatoes, all of which are readily saleable locally.

The value equivalent <sup>(6)</sup> of total crop production for the year at rough local market prices was R10 154, of which maize production comprised 43%. This is a gross figure - without deduction of the cost of inputs (see section 2.8 below). The value of mean household production for the year was R156 (s.d. = R30). At the top-end of the distribution of production across households we find 6 households which produced crops worth more than R500 while one (R1 303) exceeded R1 000 <sup>(7)</sup>. It is easier to appreciate what conditions were like at the bottom-end of the distribution if we convert to a monthly basis : the grim picture then emerges that the value equivalent of mean gross crop production was a mere R13 per household per month and that 74% of households were unable to achieve even this and 17% produced no crops at all.

#### 2.4. Egg and milk production

Egg and milk production were very difficult to estimate. In this brief treatment we note only that while 54 households (of 65) had chickens at the time of the survey, only 20 had used any of their own eggs in the previous year. We estimate total milk production for the whole sample of 65 households at 37 755 litres, or a mean annual production per household of 550 litres (s.d. = 85 litres) - though in fact only 45 households actually produced milk. From Table 2 the importance of milk in the local agricultural economy is apparent: if valued at a local price of 30 cents per litre, it surpasses the value of egg and crop production combined. There is a further interesting feature of milk production which relates to poverty and subsistence (in the basic physical sense). Of the households which said that the previous season was a bad one agriculturally 52% obtained more than half of their money value of production from milk. Of the remainder who described the season as average only 27% obtained over half their production from milk. This indicates that  
milk/.....

TABLE 1 Value of all agricultural production (meat excluded) in one year by produce type.

This is the total for the Sub-sample of 65 households

(Values calculated at estimated local market prices)

		Value (R)	No. of producer-households
Cereals:	Maize	4 358	54
	Sorghum	783	13
TOTAL		5 141	54
Bean crop:	Beans	1 424	18
	Juga beans	261	11
	Cowpeas	232	8
TOTAL		1 917	24
Cucurbits:	Pumpkins	1 508	25
	Melons	116	13
TOTAL		1 624	32
Vegetables:	Beetroot	5	2
	Cabbage	773	13
	Carrots	11	4
	Onions	25	5
	Potatoes	273	5
	Spinach	82	7
	Sweet Potatoes	10	1
	Tomatoes	256	8
TOTAL		1 435	15
Others:	Peaches	2	1
	Groundnuts	35	1
TOTAL		37	2
All crops total		10 154	54
Eggs		398	20
Milk		10 727	45
All production total		21 279	63

milk is a vital resource particularly when the area is stricken by drought.

2.5. Value of total agricultural production

The total value of crop, egg and milk production was R21 279, or R327 per household per annum (s.d. = R44,50). Only 2 of the 65 households produced nothing. (Table 2)

2.6. Sales and gifts of agricultural produce

About 13% of production changed hands in the community (sales, gifts etc.) and only a fairly small number of households seem to have been involved. Clearly almost all produce was consumed by the households which produced it.

2.7. Animals : sales and slaughtering

Table 3 shows animals owned, slaughtered and sold. Its most striking feature is that only 1 head of cattle (0.2% of the combined herd) was actually sold, the other 'sale' being payment for work. This is despite the fact that it was a drought year and people should have been reducing their herds. Only 24 head of cattle were slaughtered, these usually being for occasions such as parties or weddings. Despite the dominant position of cattle in subsistence agriculture, they do not provide much meat or supplementary cash income.

Chickens were an important meat source. 57 households (88%) slaughtered chickens. For 30 households (46%) poultry was the only domestic meat eaten. The importance of chickens may have been even more evident had it not been for recent Newcastle disease. It is also noteworthy that the sale of chickens brought in more money to more households than cattle did. They are clearly an important protein source, and are convenient to raise.

TABLE 3 Animals: ownership by households in April 1981, and slaughter and sale during previous 12 months: subsample of 65 households

	Households owning animals	No. of animals owned	No. of animals slaughtered	No. of animals sold
Cattle	51	545	24	2 (1)
Sheep	20	183	35	
Goats	15	83	25	
Pigs	10	12	4	1
Chickens	54	537	672	109
Other poultry (2)	12	42	6	
Value			R8 534	R614

(1) One of these went to a herder as payment. (2) Mostly ducks

2.8/.....

## 2.8. Agricultural costs and net agricultural incomes

Information was collected on costs incurred in the course of agricultural production. <sup>(8)</sup> In the 65-household subsample 78% reported agricultural expenses, and 31% of these failed to produce crops to the value of these expenditures. The net earnings from arable agriculture (i.e. the gross value of crop production - agricultural expenses) ranged from minus R147 to plus R1 213, with a mean of R135 per household per year. This net arable income, which includes both home consumption and sales, works out at R1,40 per capita per month. We have not costed labour, and the agricultural income is calculated on local prices, which are much higher than a farmer could obtain by marketing through normal commercial agricultural channels. There seems no possibility of a significant class of commercial farmers emerging spontaneously under the existing system.

## 3. INCOMES

### 3.1. Incomes from all sources

We are concerned here with the question of what incomes in cash or kind from all sources were received by the resident members of the sample households during the survey month. Wage incomes received by household members living and working elsewhere were not treated as available to the resident members - except for that part of those incomes specifically sent back as remittances in cash or kind.

In summary this investigation found that in March/April 1981 the average income in both cash and kind received by this sample of resident households was a little over R114 per month. Since the average resident household size was 8,07, average household income per person was R14,18 per month or R170,20 per year.

It must be emphasized that these are constructed figures. Some of the income-components are based on receipts 'last month' reported by 111 households. Others relate to agricultural production and livestock slaughterings 'last year' by 65 households; they have been converted to monthly income contributions by averaging over a year and have been assumed to be relevant for the remaining 46 households in the sample.

There were further resources available to households in the study month as a result of money borrowing, drawing on savings, or receipt of gifts in kind from other households. These are ignored here but are referred to in the next section on household budgets.

3.2. Components of total income classified as in cash or in kind:

For the average household in our sample, income was received from a number of sources which are listed in TABLE 4. In this presentation cash sources are distinguished from those in kind.

TABLE 4 Mean monthly household income (all sources),  
March/April 1981

Agricultural incomes are monthly averages for preceding year. Note that for agricultural earnings it is possible to give gross income and expenditure, but for home enterprise only net income (i.e. profit) can be given.

TOTAL GROSS INCOME		<u>R117,49</u>
<u>In cash:</u>		
Remittance in cash	45,05	
Pensions	18,14	
Local employment: wages	5,53	
Net income from home enterprises	4,90	
Gross agricultural sales	3,84	
		<u>R77,46</u>
<u>In goods:</u>		
Remittances in kind	4,87	
Gross value agricultural production (excluding sales)	24,39	
Gross value livestock slaughterings	10,77	
		<u>R40,03</u>
<u>Total gross income: cash and kind</u>	<u>R117,49</u>	
EXPENSES INCURRED		<u>R 3,06</u>
Agricultural expenses	R 3,06	
<u>TOTAL NET INCOME</u>		<u>R114,43</u>

Two thirds of the estimated monthly income (68%) is constituted by money payments of one kind or another - of which remittances in cash from family members working/.....

working elsewhere is by far the most important item (39%). The remainder of household income is received, or accrues, in the form of goods - either brought or sent back by migrants, or produced locally in crop or pastoral agriculture.

We have common sense grounds for thinking that agricultural costs are somewhat understated, so that overall net agricultural income may be less than the figures implicit in TABLE 4 (viz. R35,94)

3.3. Components of total income classified as deriving from internal or external sources:

An alternative classification of this information may be made which stresses the distinction between income derived from sources external to the community (remittances in cash and kind and pensions) and sources internal to the community (the three agricultural income components, wages from local employment, and income from home enterprises). It turns out that almost 60% of income is derived from activities and/or sources which are based elsewhere: remittances and pensions constitute R68,06 of total net income of R114,43. In this most fundamental of senses the communities represented in the sample are economically dependent on external capital, enterprise, production and welfare.

3.4. Components of total income classified as agricultural or non-agricultural:

Another possibly interesting distinction is that between income from agricultural sources and from non-agricultural sources. Carrying out this classification shows a little over 30% of income as derived from agriculture - with animal production (milk, meat) dominating crop production. While it is clear that these households are dependent on external, non-agricultural sources of income for survival, agriculture is not negligible - at 30% of income. Moreover, of course, we are talking here of mean household incomes - and there is a distribution about the mean. Closer examination of this distribution reveals that over 20% of the 65 households (14/65) for which we have good agricultural data received more than half of their incomes from agricultural sources. It is also fairly clear that those households with low cash receipts from remittances etc. depend more heavily on agriculture. (A more precise discussion, with some statistical evidence, is presented below in the section on income distribution).

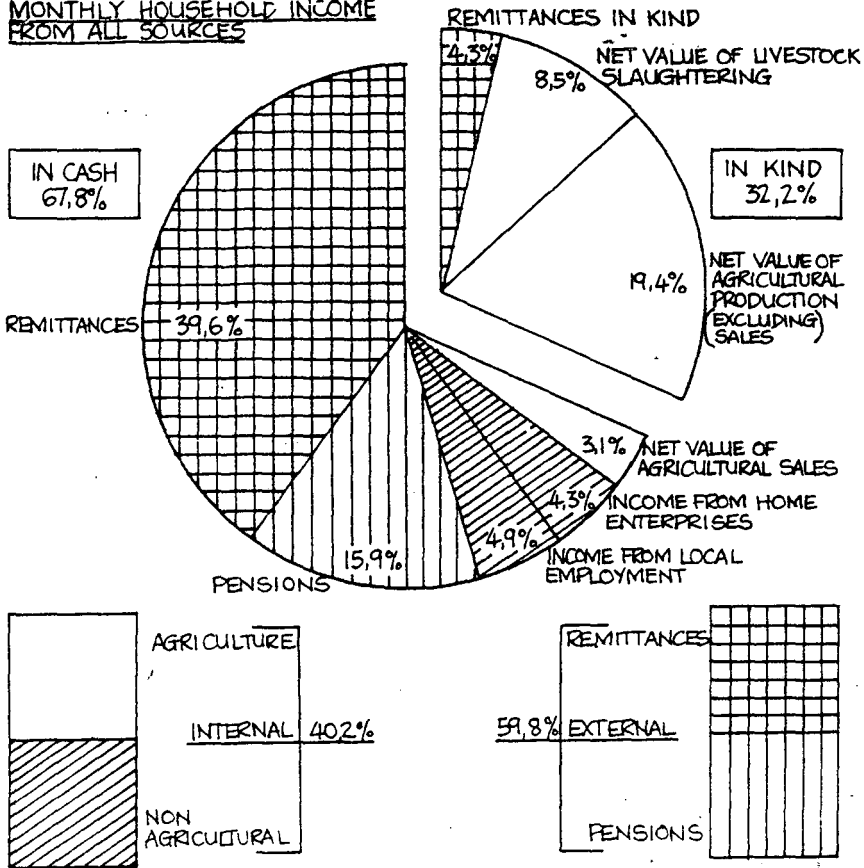
3.5. Remittances

In the 111 households of the survey, there was a total of 207 workers away. Of these 57% remitted cash in the month prior to the questionnaire. Thirty

of/.....

FIG 1

MONTHLY HOUSEHOLD INCOME FROM ALL SOURCES



The chart shows the breakdown of monthly income of an average household into various components. There are major divisions into income in cash (left) and in goods (right), and into income from external sources (lines) and from internal sources (dots). The community is dependent on outside sources for 82% of its cash. Agriculture provides negligible amounts of cash on average, but nearly a third of all income (cash and goods).

Thirty of the households received no remittance in the surveyed month. Average remittance was R43 per remitter - or R22 per worker away (remitting or not).

In addition in the surveyed month, 16 households received goods with a total value of R541. This averages to R4,87 worth of goods per household. Fourteen households received both goods and cash.

For logistical reasons, the survey covered only one month and we are left with no alternative but to assume that month to be typical of the period (9). We assume then that every month about 117 of the 207 workers remit an average sum of R43, although specific households may not necessarily receive regular amounts. In answer to a question on the reliability of remittances many respondents said that they could not rely on regular payments, but the question seems to have been misunderstood on many occasions. Some said that although they did not receive regular payments, their relatives could be relied on to send money when it was needed. In the concluding section of the paper we return to this question, suggesting that a closer understanding of the financial relationship between the resident household and their absent migrants is required.

### 3.6. Pensions

After remittances, pensions were the most important source of money income for the community, accounting for about 16% of its receipts in the surveyed month. 63 pensioners in 51 households received pensions. These were paid by the KwaZulu Administration and were usually R60 or R66 every two months. A few interviewees complained that the amount was variable and that they were sometimes underpaid.

The average income per household from pension payments was R18,14 per month. Among the 46% of the households that received pensions, the average income from that source was R39,48 per month. These meagre pensions are vital to the survival of some households.

### 3.7. Local employment

Local employment and home enterprises, while important sources of additional income, are minor when compared to remittances and pensions. The income from local employment and home enterprises is about a sixth of that from remittances and pensions.

Only 2,45% of the home population, or 22 people, were employed locally. Of these, 13 had permanent jobs and 9 were seasonally employed. These workers constitute only 9,6% of the community's total workforce of 229 people/.....

people. A large proportion of the permanent workers were employed as domestic workers at the nearby mission. One person worked at a butchery. Seasonal workers generally performed manual labour related to drought relief programmes or the building and maintaining of dams: some of this employment was not regularly available, but had an emergency character. The average monthly wage for permanent workers was R42,18. For seasonal workers it was R30,00.<sup>(10)</sup>

### 3.8. Home enterprises

27 households, nearly a quarter of the total, were involved in some form of profitable enterprise at home. (In many cases businesses were literally conducted 'at home', but the sample included a store-keeper.) The net income from 9 of these operations was impossible to determine and the figures below are derived from the remaining 18 households. The contribution of their home enterprises to the community's total income in the month of the survey was slightly over 4%.

The net income ranged from R200,00 in the case of one bricklayer to a slight loss. The average income from this source last month was R4,89 per household, or R20,13 per household that actually engaged in home enterprise.

Nearly one third of those involved in home enterprise were involved in some form of commercial activity in the buying-and-selling sense. These people did not produce goods or services, but bought and then resold items for a profit. The people bought clothes in Durban or elsewhere and resold them locally, and traded in animal skins, and one bought pigs which were slaughtered and sold. One person owned a 'tea room' and two others sold bottled drinks. The second largest class of home enterprise consisted of six people who sewed for profit, either producing or repairing clothes. Four people, including the skilled bricklayer, were involved in building. An equal number worked with grass, either producing plaited grass mats or selling thatching grass. Two traditional doctors made steady incomes through their trade. Finally, there were individuals who baked bread and sold religious water. Three households were engaged in more than one type of enterprise.

In examining the data on home enterprise, there is no evidence to indicate that in general interviewees either aggressively pursued income opportunities or that they lacked interest in enterprise. Nevertheless, a few generalizations regarding attitudes towards enterprise are possible.

If the two exceptionally high remittances described in footnote 9 are discounted, it is apparent that households engaged in enterprise earn, on  
 average/.....

average over 20% less from pensions and remittances than the rest of the sample. Also, more than a fifth of the households engaged in enterprise received no income at all from pensions or remittances. These findings suggest that enterprise is viewed primarily as a way of supplementing or substituting for other income, so those most in need are more likely to pursue enterprise opportunities. (11)

The conclusion is supported by evidence from the interviewees concerning the intensity of their involvement with enterprise in the simpler, home-manufacturing areas of sewing, producing grass mats and thatching grass - indicating that while they had recently engaged in these activities, and often did, they were not currently producing anything. The fluctuations in enterprise activity seem to reflect both the budgetary needs of the household and the competing demand for manpower from agriculture rather than the prospects of the market. The month reviewed by this survey, in particular, is an important one for preparing the harvest, which requires a significant commitment of time and effort from those members of the household who might otherwise engage in enterprise. In either case, the lack of continuity in entrepreneurial activity indicates that home enterprise is seen as a way of producing extra money when it is needed, not as a primary source of income.

In contrast to this view, however, there is evidence that some individuals had aggressively pursued enterprise opportunities and were extremely business orientated. Some of those in the more commercial end of home enterprise had demonstrated considerable and sustained initiative in organising their enterprise. One person owned a tea room, another sold bottled drinks (as already noted) and two people had overcome considerable obstacles of transport and logistics to purchase clothes in Durban and Johannesburg which were resold locally.

#### 4. HOUSEHOLD BUDGETS

##### 4.1. Expenditure

Expenditure here refers to money spent in the rural area either by permanent members of the household or by returning migrants. It also includes a few instances of money being spent away from home by a permanent resident in the household. It does not include money earned and spent away from home even if the goods are brought back. The money must physically pass through the rural home.

The best that can be achieved in a short term survey is a rough estimate  
of/.....

of household expenditure. (12) Each interviewee was asked how much was spent on certain things in a given time period. For food, most consumables, transport etc. the period was 'in the last month'; for durables, building material and agricultural expenses it was 'last year' (i.e. in the past 12 months) and for taxes, levies and educational expenses it was one calendar year. Possible expenditure was itemized as much as possible in order to jog people's memories.

The average monthly budget for a family is given in TABLE 5. The confidence limits were calculated after lumping replies into groups (from three to ten per group) since there were no simple normalizing transformations.

TABLE 5 Average monthly household expenditures

From the amounts which each family reported spending in a given time period, the average monthly budget was calculated.

	R/family month	95 % limits	% of total
Consumables	55,30	7,15	64,9
Durables	10,77	2,86	12,6
Education	6,66	1,73	7,8
Services (esp. transport & medical)	4,80	0,89	5,6
Agricultural expenses	3,06	0,82	3,6
Clothes, blankets, shoes etc.	2,64	1,01	3,1
Taxes and levies	1,61	0,17	1,4
Church dues	0,80		
Total	<u>R85,64</u>		

The finer details of the expenditure on consumables (as reported in response to direct questioning) show that maize meal was by far the most important item (36,9% of the consumables budget as estimated by this method), followed by bread (9,9%) and sugar (8,1%). Data obtained by asking questions about the most recent shopping-visit suggest that the bread expenditure above was seriously overestimated and that the sugar expenditure was underestimated. (13) Both approaches agree that fresh foods (fruit, vegetables, meat, fish, eggs, fresh milk) took 11/12% of total expenditure on consumables.

Some detail of expenditures on durable goods is suggested in TABLE 6.

Building

Building materials accounted for nearly half of total expenditures in this category.

TABLE 6 Distribution of Household Expenditure on Durables (%)

Building materials	47,8
Furniture	26,9
Vehicles	11,7
Radios	10,7
Others	2,8
	<hr/>
	100,0
	<hr/>

#### 4.2. Incomes

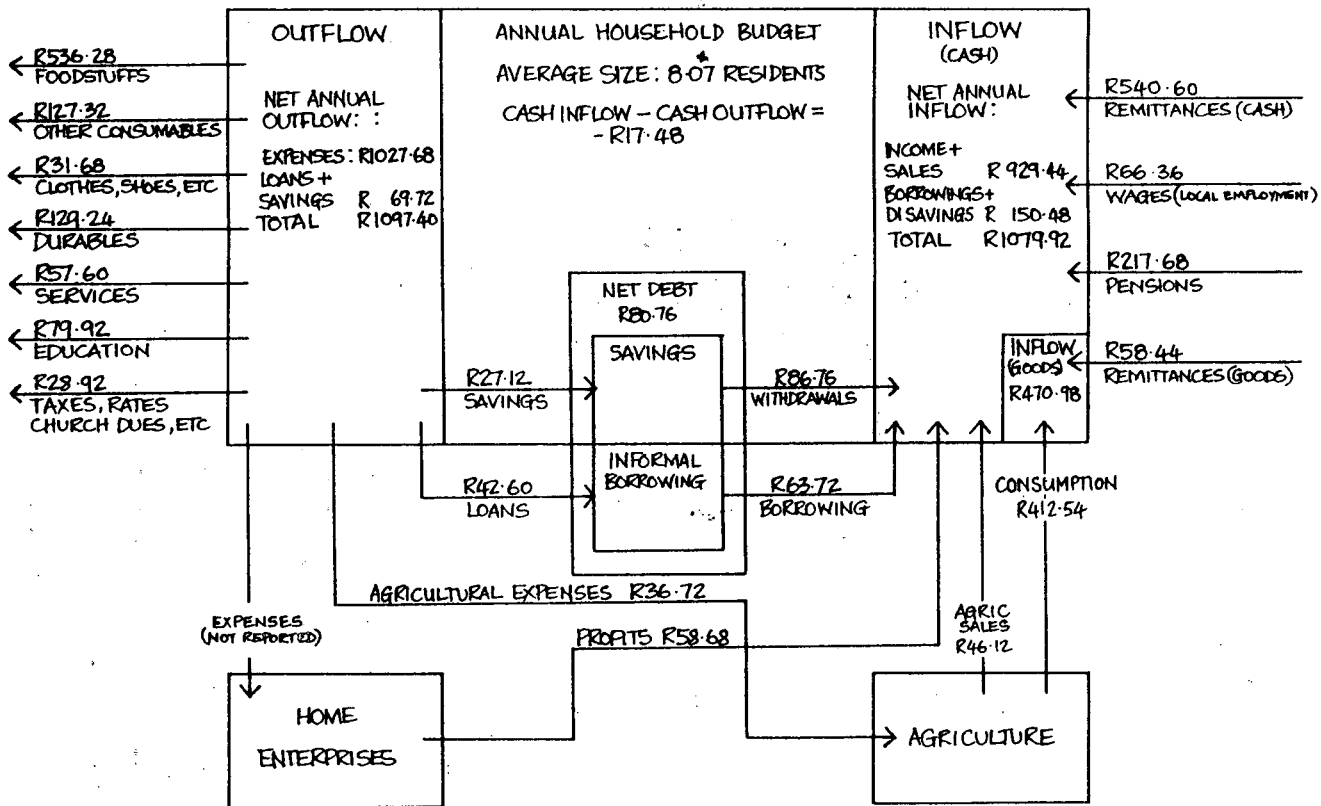
Information on incomes from various sources has been presented in some detail in section 3, and will not be repeated here. Suffice it to say that average household income of R114,43 per month has been analysed into eight components - which are also classified variously into in cash/ in kind, external/internal and agricultural/non-agricultural categories. It is the in cash/in kind distinction which is relevant in this section since the expenditures which are financed through the household budget are paid for in cash.

#### 4.3. Balancing the budget

If all cash expenditures and receipts are accounted for, they must balance except for certain further balancing items on 'capital account' - representing saving and dissaving, borrowing and lending. Somewhat to our surprise the 'average household' in our survey had a yearly set of income and capital accounts which almost balance. Classifying items as 'inflow' or 'outflow' and adding income account and capital account items together on either side, produces a total annual cash outflow of R1097,40 and a cash inflow of R1 079,42 - so that there is a discrepancy (or 'experimental error') of only R17,48.

The 'balancing items' have not thus far been discussed. In the data there are references to savings and both positive saving and dissaving (or withdrawals) are recorded. There are also references to informal credit and both loans and borrowings are recorded. Taking our sample as a whole, households withdrew more funds from their savings than they deposited, and borrowed more in informal credit networks than they loaned to others. As illustrated in the accompanying flowchart (FIGURE 2), the average household saved R27,12 during the year and withdrew R88,76 from savings; it also borrowed/.....

FIG 2: THE HOUSEHOLD



borrowed R63,72 informally and lent R42,60. On capital account therefore, the sample's position deteriorated on average by R80,76 (= R150,48 - R69,72) - i.e. net debts were incurred or financial assets reduced in an effort to finance expenditures.

It may be that this deterioration on financial capital account is to be accounted for by mis-reporting. It may also be however that it reflects the facts, since most agricultural producers referred to 'last year' as a 'below average' one and there may have been some pressure on budgets for that reason.

## 5. INCOME DISTRIBUTION

In most preceding discussions of incomes and expenditure, a mean or averaged situation across households has been presented. Of course, mean household income-and-expenditure figures are summaries of the full distribution of incomes and expenditures, and as such discard much potentially interesting information. In fact the detail of the lower-end of both distributions is of considerable interest - in particular for the information it will provide about relative and absolute poverty in the communities studied. Although we did not intend to study income distribution, it is possible to construct size distributions of household income and household income per capita for 65 households (for the remaining 46, data on agricultural incomes are not well-established).

### 5.1. Distribution of household income

An indication of the unequal distribution of incomes can be obtained from TABLE 7. However, there is a major reservation that needs to be made about this table. It represents the distribution across households of the sum of remittances for one month and averaged other incomes. We do not know how similar would be the distribution obtained by considering a year's remittances and averaging over 12 months. It is possible that some (or much) of the variance would disappear. Some households which received low remittances in our sample month, may well have received higher payments in other months, and vice versa for high remittance receivers in our month. Whatever the precise position may be (and of course there are structural features creating inequality - the number of migrants per household, their occupations and wages etc.) we have not established it with certainty.

As already reported the mean of this distribution is close to R114 per month. The fact that the median level is R87,50 per month reflects the concentration of households at the lower levels of income. Close to

30%/.....

30% of the sample have household incomes of less than R50 per month, and close to 60% below R100 per month.

TABLE 7 Estimate of the size distribution of monthly household incomes from all sources, 1980/1981 - based on one month's data on remittances  
(truncated sample : 65 households)

Income per month (R)	No. of households	Cumulative distribution %
0 - 24	7	10,8
25 - 49	12	29,2
50 - 74	9	43,1
75 - 99	10	58,5
100 - 124	6	67,7
125 - 149	6	76,9
150 - 174	5	84,6
175 - 199	2	87,7
200 - 224	4	93,9
225 - 249	1	95,4
250 -	3	100,0

It is of interest to note that households at the lower reaches of the income distribution are more heavily dependent on agricultural incomes than others. It appears as though agricultural assets and activities to some extent off-set the low levels of remittance and transfer incomes received by these households.

There are several ways in which this evidence might be presented, but we have chosen to show how agricultural incomes vary with non-agricultural cash incomes - and have done so with grouped data and group average incomes. Whereas throughout the non-agricultural income range above R500 per annum, mean agricultural income (in cash and in kind; or, from sales or as subsistence) is fairly steady at about 25% of the mean household total, below R500 per annum the average household derives more than half of its income from agricultural production. (See TABLE 8, next page)

It is important to note that we do not say that households with lower non-agricultural incomes have higher agricultural incomes although on average/.....

average this is true if we compare the bottom two income classes. More generally, however, the average level of agricultural income rises with non-agricultural income. The common-sense of this is that agriculture by-and-large even in these conditions requires some bought inputs for productivity.

TABLE 8 Variation of household agricultural incomes (sales and subsistence) with levels of household non-agricultural incomes

Non-agricultural income range (R/pa)	No. of house- holds	Mean non- agricultural income (R/pa)	Mean agri- cultural income (R/pa)	Mean agricultural income as % total income
0 - 499	27	259	351	57,5
500 - 999	19	789	291	26,9
1 000 - 1 499	11	1 282	474	27,0
1 500 -	8	2 700	886	24,7

#### 5.2. Distribution of household cash expenditures

It is possible that there is greater variability in cash incomes on a month-to-month basis than in cash expenditures (with credit and dissaving making possible a 'smoothing' of expenditures over time). If this is so it seems worthwhile to examine the distribution of reported household cash expenditures and to compare it with that of household incomes. A further advantage is that a larger sample (the full 111 households) is available.

Clearly cash expenditures ought in the general case to be lower than income from all sources because there is a not insubstantial subsistence component of income. This makes it of considerable interest that in the expenditure distribution 21,6% of households reported cash expenditures of less than R50 'last month', whereas income estimates put the below -R50 per month class at 29,2% - i.e. there are less very poor households right at the bottom of the distribution judged by their consumption than the income data would lead one to expect. At the R75- level the comparison is reversed and, as one would expect, while 43,1% of the income-sample are below this level, 53,2% of the expenditure-sample are. It is unfortunately

not/.....

not possible to take this issue further with existing data - it may well be of course that poor households simply over-report their expenditures!

5.3. What do these figures mean?

It is far from easy to bring these figures 'to life'. Even the distribution of household incomes per capita, which has much the same concentration of incomes at the bottom of the distribution,<sup>(14)</sup> is not easy to read in human terms. In the next section we attempt to compare the incomes we have measured with one 'poverty level' estimate for rural areas.

6. CONCLUSIONS (AND QUESTIONS)

6.1. Cattle in agriculture

The most striking feature of the agricultural situation in Mahlabatini in 1981 was the central role of cattle despite the low sales turnover. Their importance as a store of wealth is underlined by the fact that the value of the average cattle holding was roughly equivalent to the average household cash income over a period of 2,5 years (over R2 300). We found that milk production was higher (in terms of cash equivalent) than all other agricultural production put together. Draught power was another major contribution, although there was a shortage of draught power (in some sense).

In other words, although cattle are important, herds are too small to provide both replacement and the full range of subsistence needs, let alone produce a saleable offtake. (Colvin, 1983) However the pastures are already seriously overgrazed, and this is a direct threat both to environmental stability in these areas and to the sustainability over time of even the current subsistence income derived from cattle. Very little progress seems to have been made with this intractable problem<sup>(15)</sup>. It is unlikely to go away.

6.2. The subsistence component of household incomes

The average household in this survey (resident size = 8,07 persons) received a cash income of R77 during the month of March/April 1981. If account is taken of agricultural production in the year preceding the survey month, average household income rises to the neighbourhood of R114 per month (including non-subsistence remittances in kind worth nearly R5).

There is some interest in this finding since there are no generally-accepted quantitative estimates of the relative size of 'subsistence income' in rural/.....

rural areas (or of the distribution of the relative size of 'subsistence income' across rural areas, if there is regional variation). However, there are widespread assumptions of a loose kind, often contradictory, about the matter: on the one hand African rural areas are seen as little more than deserts, on the other it is optimistically assumed that they still have the capacity to absorb increased populations on a subsistence basis at least in the short run. The results of this survey show that in Mahlabatini the subsistence component of total income actually available to resident households is not negligible, but that it is dominated in importance by remittances and pensions: it constitutes roughly 30% on average of income from all sources. It is clear that a typical household cannot subsist on a mere 30% of its income, and that people's survival has thus become dependent on financial and resource transfers from the money-wage-economy. There is a qualification to this average picture: for households with non-agricultural incomes in the range below R500 per annum mean income from agriculture as a percentage of total annual income was 57,5% (TABLE 8). Even such households cannot be said, on the information available, to live off agriculture; but their incomes are higher than the cash-income focus would suggest.

Two income sources which might be thought to boost household incomes substantially above the level of available wage-remittances and pensions are local employment and 'home enterprise' - not subsistence activities but relatively 'invisible' and hence easily missed. In a genuinely rural area such as Mahlabatini it appears that they generate relatively small income contributions. In combination their contribution constitutes 13% of cash income and 9% of total income. Of course their importance for some households is far greater than this, and there is some evidence that the income-flows from these sources have some tendency to expand when other sources decline.

### 6.3. What determines how much is remitted?

The average monthly household income per person (treating children as equivalent to adults) was R14,18 in early 1981 in Mahlabatini. The incomes of the workers in town belonging to these households and remitting (or not remitting) incomes to them, would have been - even after deduction of the remittances - 10 (and more) times that of family members 'at home'. This points to an issue not often discussed viz. that the income-level of rural households is dramatically affected by the wage-remittance behaviour of/.....

of the absent members of their households. Rural incomes are partly determined by income-distributional decisions made in town by absent workers. What determines the amount they remit? How do their decisions vary over time?

While putting the question as we have it is important to note that urban workers do not simply remit 'as they please'. There are pressures on, and requests to, them from the rurally resident households. Some of our informants said that their migrants could be relied on in the sense that they would send money when it was needed at home (in addition to more normal remittances). This is a perspective which we conjecture it may be worth investigating further. Clearly it does not apply to all households: there are those without urban wage-earners and there are those which have been fairly unambiguously deserted by their wage-earners. As anthropologists have pointed out (Murray, 1981; Spiegel, 1980) these households are poorest and most vulnerable. Even those households to which it does apply are of course severely restricted in the degree to which they can increase the flow of remittances and hence in some sense 'determine their own incomes'. Our point is that it would be useful to have some idea of what the degree is, and whether it hinges on some (presumably changing) notion of appropriate standards of living for rural dwellers.

#### 6.4. Poverty

At least one attempt has been made to define a 'poverty measure' for Black households in rural areas (Potgieter, 1982). Without necessarily endorsing the concept developed or the details of the measure proposed we think it is interesting to apply it to the households in our Mahlabatini sample. Potgieter works with two measures, a Household Subsistence Level (HSL) and a Household Effective Level (HEL). The HSL is an 'estimate of the theoretical income needed by an individual household if it is to maintain a defined minimum level of health and decency in the short term.' It is concerned with 'the short-term satisfaction of basic physiological need' and assumes rational expenditure in items satisfying such needs. It makes no provision for 'such essential requirements as medical expenses, education, savings, hire-purchase, holidays, reading material, entertainment, recreation, insurance, purchase and replacement of household equipment, and incidental transport.' The HEL of income is 'that which, after one third of it has been allocated to other items, is equal to the cost/.....

cost of the HSL requirements for that household.' Thus HEL = 1,5 HSL. Potgieter attempted to measure these levels in June 1982 for Black households in a number of areas, including Nongoma in KwaZulu (which is about 50 km from Mahlabatini). His estimate for a household of six (including an absent mine worker) was R142,08 per month. Removing a small subsistence allowance for the mine worker and assuming 15% cost inflation in the 1981-82 year produces an HSL figure of R115 per month for 1981! However, Potgieter's representative household had five resident members whereas the average household in the Mahlabatini sample had eight. Making a rough proportional adjustment raises the monthly HSL to R184. Clearly our average monthly household income at R114 is well below this figure - and it is only 41% of the Household Effective Level of R276 per month corresponding to this HSL.

An adequate response to these tentative findings would involve a very lengthy discussion. All we shall say here is that the average household income level in rural Mahlabatini in 1981 was well below a fairly widely-used poverty measure, and that more than half of the households in our sample had incomes below that average. Although our figures need to be used with caution because the cash income findings relate only to one month, it seems unlikely that fuller coverage would alter the picture drastically enough to remove the clear implication of considerable poverty.

## FOOTNOTES

- (1) An extended report of our research is available as M.V. Gandar and N. Bromberger, Subsistence production and household budgets in Mahlabatini District, KwaZulu, Working Paper No. 11, 1984, Development Studies Research Group, Department of Economics, University of Natal, Pietermaritzburg.
- (2) 41% of respondents referred to problems with draught power (too few oxen, or inability to afford tractor hire), and 26% said seed and fertilizer were unavailable or that they could not afford them. Drought was mentioned by 40% of respondents, often in combination with other constraints.
- (3) The stocking density for the whole study area was 2,01 ha per head of cattle or 1,83 ha per 'cattle equivalent' (counting 6 small stock units = 1 head of cattle, an approximation based on the figures of Meissner (1982). This is slightly higher than the average for KwaZulu or for the whole of Mahlabatini District.
- (4) Some of the slaughterings we count as income-in-kind may represent reductions of herd size and so perhaps are not income in the strict sense. At the same time we miss increases in herd numbers and value which do represent income (addition to stocks) but have not yet been realized as sales or taken out in slaughterings/consumption.
- (5) It is more drought-tolerant than maize, produces preferred beer and porridge, and will sell locally for 4 times as much for a given mass.
- (6) We sometimes use the term 'value equivalent' to remind ourselves and our readers that we are imputing values to quantities which have not passed through market transactions. There are some awkward questions to do with the valuation of subsistence production which we are ignoring here.
- (7) The household whose crop production we valued at R1 303 had been headed by an agriculturalist (recently deceased). If its agricultural expenses of about R100 p.a. are deducted the net value equivalent is about R100 per month - from 7 fields plus a garden. This is more land than most households were able to use, the sample mean being 3 fields per household. (Field-size was not measured).
- (8) Agricultural expenses for the subsample of 65 were R45 per household per year - which is slightly higher than the figure quoted in TABLE 5 in the section on household budgets. These expenses are reduced to a monthly basis and relate to the whole sample of 111 households: the relevant figure is R3,06 as compared with R3,75 for the subsample.

- (9) In fact, the assumption that the month of the survey is typical of all months is probably not altogether valid since remittances are likely to exhibit seasonal variation. In December, for example, larger than normal remittances could be expected as migrants return home for Christmas. Lesser peaks could be expected in January with the need to pay school fees, April when migrants return for Easter, and possibly October when some families hire tractors. The Easter weekend occurred towards the end of the study period so in the last few questionnaires remittances, especially in kind, may have been higher than normal while earlier ones may have been lower than normal. The sample included two abnormally large payments from relatives: one of R500 for a cattle purchase, the other of R200 for a lobola, contribute to unusually high remittance figures for the month. While such transfers of funds into the community may not be rare, they are possibly uncommon enough to bias the data for the particular month in which they occur.
- (10) We have over-estimated the annual contribution from seasonal work (see Figure 2: wages from local employment). Since we did not collect information about the distribution of such work across the year, we ignored seasonality in calculating the annual total.
- (11) The important qualification to this is that many 'enterprises' require capital - either working capital or implements and equipment. Those 'most in need' are likely to lack such funds or stocks of equipment - though they may have equipment which derives from an earlier more prosperous phase of their domestic cycles.
- (12) In Chapter 4 of the longer report we present details of 2 separate methods which were used to study expenditure. The one we mainly rely on here required respondents to recall expenditures under various heads over some period of time. The other - to which only brief reference is made in the text - used information about the most recent shopping visits made by every household.
- (13) In Chapter 4 section 1.3 of the longer report we discuss systematic errors of this sort in the expenditure data. As regards bread, 63% of respondents claimed to have bought bread every day in the last month but this is definitely not true when the time-distribution of, and expenditure connected with, the households' last shopping visits is analyzed.
- (14) In Chapter 5 section 3 of the longer report a table for the size distribution of household income per capita is presented.
- (15) Free and common access to the pastures for all local residents is almost certainly a substantial part of the problem. Various writers have made useful-looking suggestions about how pastoral land-tenure may be reformed without ignoring considerations of equity. It seems that there is a large gulf between proposals and implementation.

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## APPENDIX : NOTE ON RELIABILITY OF RESULTS

Chapter 7 in our longer report is devoted to some discussion of the reliability of our results. We append our conclusion : ' .... the results of a survey like this are subject to many possible biases each of which may be small but together they could lead to at least some large cumulative errors. We cannot presume to put confidence limits on our results, although we believe firmly that whatever errors there may be, are not sufficient to alter the overall picture of the socio economic conditions in the study area. The degree to which the money flows into, out of and within the community balance one another suggest that this overall picture is substantially accurate.'

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SALDRU  
School of Economics  
Robert Leslie Building  
University of Cape Town  
Rondebosch 7700