Poverty and development in a rural community in KwaZulu
(Part 2: Chapters IV - V)
by
Elisabeth Ardington

Carnegie Conference Paper No.53b
### TABLE OF CONTENTS

**CHAPTER I: POVERTY AND DEVELOPMENT IN A RURAL COMMUNITY IN KWAZULU**

1.0 Introduction .................................................. 6
2.0 Method of Survey ................................................. 8

**CHAPTER II: HUMAN POPULATION**

1.0 Introduction .................................................. 9
2.0 Household Membership .......................................... 10
3.0 Household Heads .................................................. 16
4.0 Sex Ratios and Age Distribution .............................. 17
5.0 Dependency ....................................................... 19
6.0 Pensioners ......................................................... 20
7.0 Migrants .......................................................... 24
8.0 Religious Affiliations ........................................... 27
9.0 Leadership and the Importance of Individuals .............. 27
9.1 Chiefs ............................................................. 28
9.2 Men or their Substitutes ......................................... 29
9.3 Modern Substitutes for Traditional Leaders ............... 31
10.0 Human Implications of a Changing Community ............. 33

**CHAPTER III: INCOME LEVELS, DISTRIBUTION AND SOURCES**

1.0 Income Levels and the Distribution of Income ............. 36
1.1 Household Incomes ................................................. 36
1.2 Individual Incomes by Household ............................. 38
1.3 Household Structures and Incomes per Head ............... 39
1.4 Household Size and Incomes per Head ....................... 41
1.5 Migrants and Incomes per Capita ............................. 42
CHAPTER IV: AGRICULTURE

1.0 Introduction

2.0 Agriculture
2.1 Access to Agricultural Land
2.2 Use of the Land
2.3 The Feasibility of Subsistence off the Land
2.4 Constraints upon Increased Production

2.4.1 Absence of Certified Seed and Fertilizer
2.4.2 Limited Availability and Weakness of Oxen
2.4.3 Absence of Suitable Labour
2.4.4 Uncontrolled Cattle
2.4.5 Limited Professional Advice
2.4.6 Absence of Infrastructure
2.4.7 Absence of Capital
2.4.8 Size of Landholdings
2.4.9 Conclusion

2.5 Alternate Land Usage
2.6 Current Incomes from the Land
2.7 Gardens
CHAPTER V : QUALITY OF LIFE

1.0 Introduction 110
2.0 Education 110
3.0 Health 130
4.0 Water 131
5.0 Fuel 132
6.0 Transport 133
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Household Size</td>
<td>11</td>
</tr>
<tr>
<td>Table 2a</td>
<td>Household Structure by Occupation</td>
<td>13</td>
</tr>
<tr>
<td>Table 2b</td>
<td>Further Aspects of Household Structure</td>
<td>14</td>
</tr>
<tr>
<td>Table 3</td>
<td>Age and Sex</td>
<td>18</td>
</tr>
<tr>
<td>Table 4</td>
<td>Distribution of Age Groups</td>
<td>19</td>
</tr>
<tr>
<td>Table 5</td>
<td>Migrants' Age and Migrant Percentage of Age Group</td>
<td>24</td>
</tr>
<tr>
<td>Table 6</td>
<td>Average Annual Remittance of Migrants in Relation to Age</td>
<td>25</td>
</tr>
<tr>
<td>Table 7</td>
<td>Average Annual Remittance of Remitting Migrants in Relation to Education</td>
<td>26</td>
</tr>
<tr>
<td>Table 8</td>
<td>Distribution of Household Incomes</td>
<td>37</td>
</tr>
<tr>
<td>Table 9</td>
<td>Households' per Capita Incomes in Nkandla</td>
<td>38</td>
</tr>
<tr>
<td>Table 10</td>
<td>Median Incomes per Capita by Household Structure Indicating, in addition, Source of Income</td>
<td>40</td>
</tr>
<tr>
<td>Table 11</td>
<td>Incomes per Capita by Household Size</td>
<td>42</td>
</tr>
<tr>
<td>Table 12</td>
<td>Incomes per Capita by Number of Migrants per Household</td>
<td>43</td>
</tr>
<tr>
<td>Table 13</td>
<td>Incomes per Capita by Number of Remitting Migrants per Household</td>
<td>44</td>
</tr>
<tr>
<td>Table 14</td>
<td>Sources of Cash Income</td>
<td>46</td>
</tr>
<tr>
<td>Table 15</td>
<td>Contribution to Household in Relation to Age</td>
<td>48</td>
</tr>
<tr>
<td>Table 16</td>
<td>Females Cash Contributions to Household Income</td>
<td>50</td>
</tr>
<tr>
<td>Table 17</td>
<td>Occupations of the 15 - 16 Age Group</td>
<td>51</td>
</tr>
<tr>
<td>Table 18</td>
<td>Small Business Activities</td>
<td>57</td>
</tr>
<tr>
<td>Table 19</td>
<td>Percentage of Land Ploughed</td>
<td>72</td>
</tr>
<tr>
<td>Table 20</td>
<td>Agricultural Produce</td>
<td>73</td>
</tr>
<tr>
<td>Table 21</td>
<td>Agricultural Income</td>
<td>87</td>
</tr>
<tr>
<td>Table 22</td>
<td>Educational Statistics for Schools in Area Surveyed</td>
<td>112</td>
</tr>
<tr>
<td>Table 23</td>
<td>Comparison of Schoolgoing Population in Survey with that of KwaZulu Nkandla and Sundumbili Survey</td>
<td>116</td>
</tr>
<tr>
<td>Table 24</td>
<td>Educational Levels of Persons in the 5 - 25 Age Group</td>
<td>117</td>
</tr>
<tr>
<td>Table 25</td>
<td>Access to Credit</td>
<td>144</td>
</tr>
<tr>
<td>Table 26</td>
<td>Difficulties</td>
<td></td>
</tr>
</tbody>
</table>

## LIST OF FIGURES

Figure 1 Population Percentage without Schooling 129
CHAPTER IV

AGRICULTURE

1.0 INTRODUCTION

This chapter deals with subsistence agriculture in the area surveyed and looks at the potential for increasing subsistence levels and for developing commercial agriculture, whether in the form of a cash crop or the raising of livestock for sale.

Traditionally, one's ability to subsist in the area was dependent on access to land. Although the climate, rainfall, soil types and condition of the soil may compare favourably with other areas of KwaZulu, the terrain is extremely rugged, making cultivation difficult and irrigation impossible, except in the very small relatively level patches next to the streams which are suitable only for vegetable gardens. We saw no tractors in the area and there are in fact few areas where they could be used to good effect. Although the area is not ideally suited to cultivation, people have for centuries tilled the soil and fed their families and continue to do so today even though the topography is a factor that prevents their taking advantage of scientific advances in agriculture and technology.

The levels of subsistence off the land in the area are, however, continually falling, and there has been almost no development of cash cropping or marketing of surpluses. As far as cattle holding is
concerned, the great value and importance attached to their possession by the community surveyed should not be considered a reflection of their economic value - not even their potential economic value. Even when in the most dire economic straits a large percentage of the community would not consider using their cattle as a source of relief and similarly when death from starvation seems unavoidable, few take the option of selling cattle. Cattle are not viewed primarily either as a source of income nor as a source of food. Indeed their greatest economic value is possibly as draft animals. The reasons for these attitudes are many and varied in origin and we will not investigate them here. However, this behaviour pattern must be borne in mind when considering the economic value of cattle in the community.

The grass in the area, sourveld or Ngongoni veld, is overgrazed and in some areas badly eroded. The almost universal practice of spring burning hastens the degradation of the veld. At present, the carrying capacity is probably only one large stock unit per 3 hectares as opposed to the actual stocking rate of one per one and a half hectares. If the veld were restored it should be able to carry one large stock unit per hectare.

The natural Ngongoni veld has deteriorated to the point where the climax grasses themeda trianda and tristachya lispida have almost disappeared and only the unpalatable aristida junctiformis remains. It would be difficult to improve the veld on account of the poor existing grass species and there is a need to establish pastures of bioclimatically-suited grasses such as K11 and Kikuya if the carrying capacity of the veld is to be improved. No soil conservation measures
have been introduced in the area - there are no contours or grass strips - and no steps have been taken to halt the growth of widely prevalent dongas.

We have stated that the area is sub-tropical and receives between 1000 and 1200 mm of rain per annum. Four-fifths of the rain falls in summer and cultivation can only occur during these months, since as was said earlier, as there is, generally, no possibility of irrigation. There is a growing season of + 170 days and a slight possibility of frost in June and July, making the area unsuitable for sub-tropical crops. During the winter, fields lie fallow and farmers wait until after the first rains before planting. These rains may occur as early as September and there is a 95% chance that enough rain for successful planting will have fallen by the end of November. Travelling through the area in the 1980's one might be excused for considering the food producing potential of the area to be negligible - the recent droughts have been so serious that some farmers have not harvested sufficient to supply seed for the following crop - however historically and generally speaking the land supported its population. We consider now the position today.

2.0 AGRICULTURE

2.1 Access to Agricultural Land

Only one household included in the survey had no agricultural land. Two households had access to borrowed land and the remainder had been allocated land in their own right, with plots varying in size from .5
hectare to three hectares. Erskine (1982: 1) states that the average holding in cultivated land in KwaZulu is 1.5 hectare which is the same as the average in this survey. Whilst a number of respondents said that they could have had more land had they been able to make use of it, others stated that their land was inadequate and that they could not get access to more. Officially there should be no charge when a chief allocates land to one of his people. However, a number of respondents stated that they had to pay a certain sum to the chief each year before they could start ploughing.1

Included in the sample were 36 married men who were not household heads. The land their wives worked, whether exclusively or with the other women in the household, has been included in the land allocated to a particular household. The average age of these men was 38. Twenty eight of the 36 were migrant workers which might lead one to believe that the reason they had not established their own households was that they wished their wives and children to enjoy the security of the extended family during their absence as migrants. However, the view of certain schoolteachers, doctors and a storekeeper was that today, more, rather than less, young married men established their own households than was the case traditionally. They stated that a large extended household was ideal when home produced food was plentiful and resulted from communal effort. Today, however, when little or perhaps

---

1. The Extension Officer, who worked for two of the three chiefs in the area of the survey, stated that he had only heard of payment being demanded (R4 or R5 p.a.) in the ward of the chief for whom he did not work but the practice appeared to be more widespread than this.
nothing was produced locally and survival was almost entirely dependent on migrants' remittances, a migrant was more likely to establish his wife and children in an independent household where he would be sure that they alone would benefit from his entire remittance, although this meant the household would be unattended should his wife visit him in town etc.

2.2 Use of the Land

The vast majority of the land actually in use was planted to maize with small plantings of madumbes, potatoes and beans occurring. With one exception cash crops were not produced - all production being intended for household subsistence.

Table 19 below indicates the percentage of agricultural land that had been ploughed the previous season. Although only 5% of respondents had ploughed none of their land, only 54% had ploughed it all. The local Extension Officer estimated that only 45% of the land was utilized and he stressed that the balance was not lying fallow but was actually unused.

The reasons for this below capacity usage are many and not easily proven, but one is certainly not an excess of land. We will see subsequently that few, if any, families actually achieved subsistence off the land. In October 1982 before anyone could expect to begin reaping green mealies over 90% of the households surveyed reported having no maize left from the previous crop.
TABLE 19

PERCENTAGE OF LAND PLOUGHED

<table>
<thead>
<tr>
<th>Amount of land ploughed</th>
<th>Percentage of Total Sample</th>
<th>Percentage Households With males in Agriculture</th>
<th>Percentage Households with own Oxen</th>
<th>Percentage Households part ploughing with hired Oxen</th>
<th>Percentage Households not using oxen for ploughing</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>5.8</td>
<td>5.3</td>
<td>5.7</td>
<td>4.4</td>
<td>9.0</td>
</tr>
<tr>
<td>Little</td>
<td>21.8</td>
<td>5.3</td>
<td>14.3</td>
<td>30.4</td>
<td>27.3</td>
</tr>
<tr>
<td>Most</td>
<td>18.8</td>
<td>15.7</td>
<td>14.3</td>
<td>21.7</td>
<td>27.3</td>
</tr>
<tr>
<td>All</td>
<td>53.6</td>
<td>73.7</td>
<td>65.7</td>
<td>43.5</td>
<td>36.4</td>
</tr>
</tbody>
</table>

N = 69¹  N = 19  N = 35  N = 23  N = 11

1. One household was landless.

Similarly very few (16%) reported any sales of produce and most sales occurred not because an excess was produced but because cash was required, neighbours wished to buy or storage was unavailable. Moreover, only one of these sales was of maize - the majority of the remainder related to produce of vegetable gardens.¹

Insufficient suitable adult labour and an absence of capital undoubtedly are part of the explanation for unused land. Table 20 relates produce to both available adult labour and access to ploughs and oxen and the results show clearly the effect of shortages or absence in these areas on production.

1. See Chapter IV Section 2.7.
TABLE 20

AGRICULTURAL PRODUCE

<table>
<thead>
<tr>
<th>Quantity produced</th>
<th>Percentage of Total Sample</th>
<th>Percentage Households with males in Agriculture</th>
<th>Percentage Households with own Oxen</th>
<th>Percentage Households part ploughing with hired Oxen</th>
<th>Percentage Households not using oxen for ploughing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing</td>
<td>10.0</td>
<td>0.0</td>
<td>0</td>
<td>14.7</td>
<td>16.7</td>
</tr>
<tr>
<td>Little</td>
<td>44.3</td>
<td>26.8</td>
<td>39.1</td>
<td>41.2</td>
<td>55.7</td>
</tr>
<tr>
<td>Home Consumption</td>
<td>30.0</td>
<td>26.4</td>
<td>43.6</td>
<td>29.4</td>
<td>8.3</td>
</tr>
<tr>
<td>Sufficient for some sales</td>
<td>15.7</td>
<td>36.8</td>
<td>17.4</td>
<td>14.7</td>
<td>8.3</td>
</tr>
</tbody>
</table>

N = 69
N = 19
N = 23
N = 34
N = 12

The Extension Officer considered the reasons for non-usage of land and low productivity to be:

1. that people had no money to buy seed (they normally used their own seed from the previous crop but were sometimes so poor they sold or consumed even that) or fertilizer;
2. that they had no tractors and that the oxen were too weak to complete the ploughing and;
3. that the people were lazy.

The respondents themselves gave as reasons the drought, the demotivating effects of the ravages wrought by wild pigs, monkeys and
uncontrolled cattle, infertile soil, a lack of money for seed, fertilizer and ploughing and a shortage of manure.

All references to the absence of suitable labour as the reason for low land utilisation or low productivity tended to be indirect. One woman stated that although she had oxen she had been unable to plough as none of the male members of the household was at home. Others referred to the absence of male labour indirectly by referring to the need to hire people to plough for them. In the sample of the 156 males over 20 years of age only 34 (21%) lived permanently in the area. Of these, 22 (14%) were involved full-time or part-time in agriculture - only 4 of them being under 40 and 10 under 60. The balance were retired or involved in some small business activity. This marked absence of able bodied men clearly has affected not only the percentage of land used but also the yields achieved.1

The shortage of labour has other far reaching effects. There is often no one to herd the cattle with the result that they frequently destroy crops as do the monkeys and wild pigs when unchecked. The devastation caused by wild pigs was restricted to the areas near indigenous bush but was so serious that some people considered any efforts to cultivate would be totally wasted. Others built miniature huts on the edge of the fields where young boys would sleep when the maize was ripening.

The effect of drought is cumulative and starts up a vicious circle. As ploughing cannot begin until it rains, when the rains are late or

1. See Table 20.
don't come at all, smaller areas are ploughed than usual with resulting smaller yields. The poor summer rains mean that the oxen come out of the long, dry, foodless winter malnourished and weaker than usual so that when the first rains of the next season come they are too weak to plough and have to wait to benefit from the first flush of spring grass before they can begin ploughing. This in turn means that even if the rains are fair that year the areas ploughed are smaller than usual and the vicious circle is perpetuated. Those who have to hire oxen find that in these circumstances they are unlikely to get their land ploughed at all as by the time the owner has ploughed his land it is too late for planting.

33% of households had their own oxen although some of these still did part of their preparation by hoe. 17% did all their preparation with hoes and 16% all with hired oxen - the balance (34%) partly with hired oxen and partly by hoe. 36% of the households had their own ploughs.

Apart from having to wait your turn when hiring oxen there is also the expense involved. People did not seem to charge close relatives and sometimes even neighbours for ploughing their land and when someone borrowed an ox (to join his and make a team), a plough or a yoke, he in return ploughed the lender's land for nothing. Others however, have to pay. The cost of ploughing is normally given in terms of isikofu - the area a team of oxen will plough in a morning. A morning is considered to be 2 or at most 3 hours and the amount ploughed will vary according to the strength of the oxen, the terrain, the soil type, recent rainfall etc. However, a rough estimate might be .12 hectare. The price for ploughing an isikofu in the area
surveyed ranged from R3 to R25 and averaged R7 (or R56 per hectare). This puts the cost of ploughing beyond the means of many and often above the value of the resulting produce. Where land is ploughed by tractor the KwaZulu Department of Agriculture estimates that the cost is R70 per hectare.1

2.3 The Feasibility of Subsistence off the Land

Before considering whether it is possible to subsist off the land or indeed to produce a surplus of cash crops, it is necessary to establish what is required to subsist. Estimates of minimum requirements for subsistence vary enormously. The Tomlinson Commission stated a family of 6 required 15 bags of mielie meal per annum, whereas F.A.O. puts the figure for a family of 6 at 10 bags.

In Volume II of the Keiskamahoek Rural Survey (1952) it was stated that a person in the Ciskei consumed 3.4 bags per annum and where this question was asked of respondents in this survey the answer received was approximately 3 bags per annum. Erskine (1982:1) states that the average household requires 1 000 kg maize p.a. - and that the average family produces half its needs. If we take a low figure of 2 bags per person per annum and an average yield of 4.5 bags per hectare per annum, assuming a family of 9, 4 hectares would be required to meet the minimum needs of a family. However, in the area surveyed the average holding of agricultural land

1. 1983 prices.
was only 1.5 hectares.  

Further evidence of the current inability of the area to support its population can be obtained from the sales figures of the store located in the centre of the area surveyed. This store sold 650 bags of mielie meal per month and the storekeeper maintained that the quantity he sold each month varied very little from month to month. For example, even in the midst of the very severe drought in August 1983, his sales had not increased significantly - no doubt because the current economic recession meant that there were fewer people from the area employed as migrants with the result that less money than usual was being remitted to people in the area. 650 bags would supply 433 households with one and a half bags of maize a month - the minimum amount required to feed a household of 9 (the average size of households in the area). As the store is unlikely to serve as many as 433 households and most probably serves less it would appear that the majority of the maize eaten in the area is purchased and not produced by the people themselves.

---

1. We have presumed the yield per hectare to be four and a half bags on the grounds that the average yield of dry maize in KwaZulu was 3 bags per hectare per annum in 1982 (KwaZulu Department of Agriculture) and that one third of the crop was consumed while green. However, it should be pointed out that not everyone in the area would have accepted these figures. Certain people indicated that as much as 50% might be eaten green. A storekeeper said a good farmer might get 10 bags per hectare per annum. The Extension Officer said he hoped to achieve 16 on his demonstration plot and that he thought the average yield in the area was 8 bags per hectare. He considered that only 25% of the crop was eaten green. However, in 1983 his inputs had cost him R104 and he had reaped nothing.
It is clear that currently subsistence needs are not being met in the area. Average yields in KwaZulu are extremely poor when compared with those in Natal, where on dry land in a normal year maize yields of 4 - 6 tons are obtained. In many respects conditions in Natal and KwaZulu are not comparable and there are limits to what can be done to modify the effects of climate and topography. Although the area surveyed forms part of one rated as a high potential agricultural area, the topography tends to undermine the agricultural potential for everything other than afforestation or possibly tea, and ensures that there is little or no scope for mechanization or irrigation. Nevertheless, yields could be improved and the possibility of meeting subsistence needs or indeed producing a surplus through increased yields or making use of more land, should be investigated. Similarly, an evaluation should be made as to whether the area is suited to subsistence farming, or whether the solution lies in the production of some more profitable crop.

2.4 Constraints upon Increased Production

With regard to factors other than climate and topography certain steps could be taken to increase yields. However, there are a number of constraints which have prevented increases in the past and may continue to do so in the future.

Basically they stem from an absence of suitable labour and capital and the traditional practices and beliefs of the area's inhabitants. More specifically the constraints appear to be:
2.4.1  Absence of certified seed and fertilizer

We saw no evidence of the use of certified seed or fertilizer in the area. The Extension Officer reported that he was very rarely required to order either and the shops stocked only very limited quantities of vegetable seeds and no fertilizer. If there were a demand for it, it would be relatively simple to make seed readily available. Significant transport problems would however be encountered getting fertilizer to the lands. Nevertheless, if the capital were available to enable local farmers to buy certified seed and fertilizer, and if they had the necessary knowledge which would enable them to appreciate their economic value, no doubt the Extension Officer and the storekeepers would respond and make them available. In August 1983 storekeepers reported a demand for maize seed resulting from the failure of the 1982/1983 crop, when farmers had not even harvested sufficient for the following year's seed.

2.4.2  Limited availability and weakness of oxen

As we have seen there is little or no scope for mechanization, so that the absence of tractors in the area is not a serious constraint upon increased production.

However, only 33% of households have their own oxen for ploughing so that the balance must either prepare their land by hand, or hire oxen. The limited availability of oxen and their weakness and consequent low output thus becomes a serious constraint as does the inability of the farmer to meet the cost of hiring oxen.
Bearing in mind that only limited parts of the area are suited to cultivation, these problems are not insurmountable. If stockholding were rationalized so that oxen unfit to plough were disposed of, if herd health was generally improved and if migrants' cattle investments were directed towards animals fit to plough, it should be possible, as a result of the increased number of fit oxen in the area and their increased capacity for work, for all those using the land economically to obtain oxen to plough their land within the planting period. Similarly, increased yields would make it easier for farmers to meet ploughing costs.

2.4.3 The absence of suitable labour

One of the pre-requisites for increased yields and increased areas under plough is an increase in the quality and quantity of labour available. Migrants are unlikely to return to the land unless they consider it possible for them to earn as much from the land as they might as a migrant. Generally this does not seem possible although one case encountered in the survey showed that, in certain circumstances, at least an equivalent income can be achieved. A young man took the decision to cease being a migrant and to make his living by growing and selling vegetables. He achieved an income of R600 per annum - more than he had been earning in his previous job. This case was exceptional in a number of ways - all of which are indicators to means of increasing production. Firstly, his lands adjoined his kraal and he was therefore able to protect them from cattle and wild animals without having to fence them. Secondly, the soil type was good and the fields were crossed by a couple of streams so that irrigation was
possible and thirdly his home was adjacent to crossroads with the result that his customers did not have to go out of their way to purchase his produce. His land was however, very steep and required careful cultivation.

2.4.4 Uncontrolled Cattle

Uncontrolled cattle have always created problems for crop producers but normally only in the winter when unherded. Today with most men away as migrants and more and more children attending school, cattle can constitute a problem throughout the year. Farmers in the area are clearly unable to afford the cost of fencing their lands and stand to suffer serious losses through cattle damage. Here one sees the ill effects of the tradition of leaving cattle unherded in winter, the problems caused by a shortage of labour and the inability to cope with both due to a lack of capital.

2.4.5 Limited professional advice

Bearing in mind that 67% of those surveyed had no education, that population pressures are causing land that is increasingly unsuited to agriculture to be brought under the plough and that only small parts of the area are suited to agriculture, planning and conservation and the services of an Extension Officer are even more important than elsewhere. There appears to have been no planning at all in the area and the services offered by the Extension Officer are as limited as the area he is required to cover is large. Considering that the community is so far from reaching its subsistence needs it is
extremely wasteful for people to put their energies into planting land which is so steep that the seed may be washed away when it rains hard.

2.4.6 Absence of infrastructure

The absence of infrastructure affects everyone in the area but none more so than those who have despite all odds produced a surplus. There are no roads or transport they can use to get the produce out of the area and no markets in the area at which they can sell. The one market that had been available to people in the area - the wattle bark factory at Melmoth - has closed down and those who had wattle quotas have lost them. There is certainly little need for markets at the present moment but production will not increase unless stable markets are established. There is no point in producing a surplus which cannot be disposed of.

2.4.7 Absence of capital

We will see that the households with the highest levels of agricultural production are those with married men at home involved in agriculture, however, unless there is in a household a migrant who can supply the initial capital required for inputs, production on any significant level is unlikely to get underway. Capital from some source independent of the household is required to buy the seed, the plough and the cattle for ploughing or at least to pay for the hire of the cattle. Furthermore, changes that have taken place in the area give rise to a need for capital where none was required before. Thus, for example, it may be necessary to pay labour where no suitable
labour can be found in the household or to fence lands to protect them from uncontrolled animals.

In the absence of government subsidies or credit facilities, migrants are generally the only source of such capital. The importance of migrants' earnings as a source of agricultural productivity is shown by the fact that the mean agricultural income in households with migrants was R63.56 per annum whereas that in households without migrants was only R32.98 per annum.

2.4.8 Size of landholding

It could be argued that the limited size of landholdings restricts increased production so that it is necessary to investigate the possibility of increasing individual landholdings. Although certain individuals stated that they would be able to obtain access to more land if they wanted it, in general this would be impossible without either a change in KwaZulu's boundaries or a change in the system of land allocation with the simultaneous encouragement of urbanization. Without additional land being made available current landholdings could only be increased in size through a reduction in their number or the cultivation of larger areas of land.

We have said that there is little land in the area suited to cultivation and virtually none suited to irrigation. Currently far more land is cultivated than should be in the interests of the conservation of the area. Any move towards increased production based on an increase in the area cultivated cannot be in the long term
interests of the area. Indeed the best interests of the area would probably be served by reducing the area under plough.

Landholdings could be increased in size by being reduced in number and it can be argued that the yields of the area would be increased by concentrating land into the hands of the most active or at least those who have access to the labour and capital which will enable them to make use of it. Currently all households are entitled to request land from the chief. Respondents stated that it was not possible to lease land from someone who did not wish to use his allocation and thus acquire access to an above average area of land. Nor was there any crop sharing reported. Some stated that land might occasionally be borrowed (at no charge) but only for short periods. The possibility of increased production resulting from larger landholdings thus appears extremely limited at present.

2.4.9 Conclusion

Although certain constraints upon improving subsistence levels could undoubtedly be removed or their effect lessened, the result would not be a significantly higher subsistence level amongst the community in general. The possibilities for increasing food production in the area are limited and the land alone cannot support the current population.

2.5 Alternate Land Usage

There is said to be potential for the development of mining in the region. Even if this were the case unless the mines were sited in the
area surveyed such development would do little for this particular community other than possibly offer employment opportunities. The terrain is unsuitable for the development of closer settlements and similarly could never be used for industrial development.

The potential for stock production is dealt with in Section 3 of this chapter.

The area was formerly forest terrain and remnants such as the Nkandla forest which is immediately north of the area surveyed establish beyond doubt the suitability of the area for timber growing. Studies such as that by C.S. Hubbard (1965:1) point to the suitability of the area for timber production. Throughout the area there are small plantations of gums and wattles brought to the area years ago by community members who were migrant workers in the plantations at Melmoth. Their successful cultivation shows that trees could be grown in the area, although some might argue that land which might otherwise produce limited quantities of food for human consumption and pasture for cattle consumption should not be used in this way. For any such timber production to be economic considerable planning and provision of infrastructure and milling capacity would be required. Afforestation, however, remains a distinct possibility but one which would require a policy decision as no individual producer would go into timber production without the assurance that the infrastructure would be forthcoming.

The production of tea in the area also merits serious consideration particularly as it is more labour intensive than tree growing.
2.6 Current Incomes from the Land

In order to calculate income from use of the land we valued agricultural produce at R90 per hectare cultivated (4.5 bags of maize @ R20 - the price obtainable at local stores as opposed to the Control Board price of R14) and deducted R56 per hectare, or part thereof, where oxen were hired for ploughing. The hectarage planted was obtained by reference to the size of the fields allotted to a household and the percentage of their fields which they claimed to have ploughed that year.¹

Agricultural incomes ranged from nothing to R315 per household per annum - with a median of R63,48. Nine-tenths of households produced less than R200 worth of agricultural produce per annum. The average household in the area contained 9.1 people who according to a low estimate would require 18 bags of mielie meal per annum (valued at R360) to subsist. Thus, it is clear that the households in the survey came nowhere near subsistence in terms of agricultural production. When one differentiates between different households one finds that those with married male heads resident in the area achieve the highest incomes from agriculture (the mean being R90 p.a.) and those with female heads the lowest (the mean being R31,25 p.a.).

¹ If we had used instead a multiplier calculated from the reported harvest from those fields, rather than the percentage planted, we would have come up with a figure approximately one third lower than the one we used. Thus agricultural income is likely to be over rather than under-estimated.
### Table 21

**AGRICULTURAL INCOME**

<table>
<thead>
<tr>
<th>Income in Rands</th>
<th>Number of Households</th>
<th>Frequency percent</th>
<th>Cumulative frequency percent</th>
<th>Mean Income in rands</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 12</td>
<td>7</td>
<td>10.0</td>
<td>10.0</td>
<td>3.42</td>
</tr>
<tr>
<td>13 - 25</td>
<td>9</td>
<td>13.0</td>
<td>23.0</td>
<td>19.00</td>
</tr>
<tr>
<td>26 - 35</td>
<td>5</td>
<td>7.5</td>
<td>30.5</td>
<td>30.00</td>
</tr>
<tr>
<td>36 - 45</td>
<td>9</td>
<td>13.0</td>
<td>43.5</td>
<td>42.00</td>
</tr>
<tr>
<td>46 - 65</td>
<td>9</td>
<td>13.0</td>
<td>56.5</td>
<td>63.00</td>
</tr>
<tr>
<td>66 - 90</td>
<td>8</td>
<td>11.5</td>
<td>68.0</td>
<td>83.00</td>
</tr>
<tr>
<td>91 - 130</td>
<td>6</td>
<td>8.5</td>
<td>76.5</td>
<td>120.00</td>
</tr>
<tr>
<td>131 - 180</td>
<td>10</td>
<td>14.5</td>
<td>91.0</td>
<td>143.00</td>
</tr>
<tr>
<td>181 - 270</td>
<td>3</td>
<td>4.5</td>
<td>95.5</td>
<td>249.00</td>
</tr>
<tr>
<td>271 - 315</td>
<td>3</td>
<td>4.5</td>
<td>100.0</td>
<td>315.00</td>
</tr>
<tr>
<td><strong>N = 69</strong></td>
<td></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

2.7 **GARDENS**

In addition to their fields or lands, 30% of the households had vegetable gardens either adjoining their homesteads or close to a stream. However, there seemed to be an inherent problem associated with gardens stemming from the fact that whereas all the

1. Here again the Extension Officer said the reason why more people didn't have gardens was that they were lazy or couldn't afford seed and fertilizer.
homesteads were on the hilltops, the streams are in the valleys and consequently you are faced with a choice - you either place your garden next to the home where you can protect it from cattle (which are unherded in winter) and other marauders or you place it next to the stream so that you can irrigate it. You cannot do both unless you can afford fencing - something very few can.

Community gardens (to which 3% of respondents belonged) provide a most satisfactory answer. By combining, people have not only been able to afford to fence but to buy seed and improve the water supply as well. Both community gardens were extremely successful and envied. There should clearly be more of them but the history of the existing two indicates clearly how such ventures rely on individual initiative, drive and administrative ability. Both gardens were started by women and although most of the members were women, as was pointed out earlier, each had some male members.

Only 16% of households sold any produce at all and the vast majority of the produce sold came from gardens - not fields. The following vegetables were grown and sold - madumbes, sweet potatoes, potatoes, tomatoes, cabbages, carrots, spinach, bananas, onions, beans and sorghum. Where households reported sales we have added the amount received to their income. In addition we have added a sum to household income to cover household consumption calculated as follows. Where a household has a garden we have added R20 to household income where the respondent reported produce from the garden, and R10 where it was reported that only very little was harvested. Where a household contained a person who was a member of a community garden,
we have added R30 to household income. Thus 8 households had R10 added to their income, 12 households R20 and 2 households R30.

3.0 STOCKHOLDING

3.1 Cattle Holding and Herd Size

Seventy percent of the households surveyed had cattle. Comparative figures obtained from surveys conducted elsewhere in Natal/KwaZulu show the following percentages of households owning cattle.

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage with Cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natal/KwaZulu</td>
<td>64% in 1965 (Erskine, 1982:1)</td>
</tr>
<tr>
<td>Sithole Ward</td>
<td>62.5% in 1965 (Bates, 1972:1)</td>
</tr>
<tr>
<td>Buthelezi Ward</td>
<td>50% in 1975 (Government of KwaZulu, Department of Agriculture and Forestry, National Resources Development Plan, Buthelezi Ward, Unpublished Report, 1975)</td>
</tr>
<tr>
<td>Mahlabatini District</td>
<td>81% in 1981 (Bromberger 1984:1)</td>
</tr>
</tbody>
</table>

The size of the herds surveyed averaged 7.9 and ranged from 1 to 30 head. The national average size of herd is 8.5 head. Nationally 57% of the herds have less than 10 head and 19% more than 20 head whereas in the survey the comparative percentages are 69% and 4% respectively.

3.2 Herd health and mortality rates

Herd health has undoubtedly improved dramatically in recent years but the effect of drought is enormous and makes an accurate analysis of
herd health through a comparison of annual death statistics impossible.

The chief reason for the improvement in herd health is an effective dipping program. Although there were no cattle dips actually within the area surveyed, there were three (Sibhudeni, Vungwini and Enyawoshana) within 1 kilometre of the boundaries of the area. Dipping is compulsory - once a week during summer - and compliance seems almost universal.

Apart from the stock inspector (a part-time official) who very occasionally stocks a few medical supplies there are no other veterinary services in the area.

Erskine (1982:1) states that the mortality rate for cattle in KwaZulu is 10%. In a year of bad drought, the figure would naturally be higher but in the subsequent year it would probably be significantly lower than usual - both because all the weaker animals would have died the previous year and because their deaths would have reduced the pressure on the natural pasture. Figures taken from the KwaZulu Department of Agriculture and Forestry give a mortality rate of 11.4% in 1980/81 and 5.36% in 1981/82.

The death rate in the survey (1981/82) was 6.73%. Respondents reported that in the year of the 1980 drought, six times as many cattle died as in the 12 months preceding the survey. This would explain the lower than normal death rate at the time of the survey. A
storekeeper in the area estimated that 40% of the cattle in the area had been lost in the 1980 drought, whereas possibly as few as 10% had been lost by August 1983 (a year of more serious drought) as the significantly smaller herd at the beginning of the year had meant more grass per head. The cattle population for the entire Nkandla district was 97 225 in March 1980 and only 76 846 in March 1982.

Subsequent to the survey, it would seem that the mortality rate in the area has risen again closer to the national average. The 1983 Kwazulu Agriculture and Forestry Report gives an 11% mortality rate for 1982/83 for the three dips just outside the area surveyed. (An accurate comparison of mortality rates cannot be made as in the official statistics the twelve month period ends in March whereas in the survey it ends in October).

3.3 Calving Percentage

Nationally Kwazulu's calving percentage is approximately 33%. In Nkandla, the calving percentage was 36% in 1982 and 30% of the cattle were breeding stock or mature heifers and cows. At the three dips surrounding the area surveyed 33% of the herd was breeding stock. As we did not single out breeding stock when enumerating cattle in the survey, we have had to presume, in order to calculate calving percentages, that a similar percentage of the herd surveyed to that of the herd at the three surrounding dips was breeding stock.

In a good year on sweetveld one might hope to achieve a calving percentage of 60% with Zulu cattle. On sourveld such as that found in
the area surveyed one might expect a 15% rate in a bad year and 50% in a good year.

However, the significantly higher mortality rate in 1980 would have meant that 1981 started with a smaller herd than usual and that the grass which grew after the good spring rains in September 1980 was not subjected to the usual pressures. As a result the surviving cattle (the naturally sturdier ones) would have picked up condition rapidly with a higher percentage of cows and heifers than usual falling pregnant towards the end of the summer. Their calves would have been born in 1981/82 and would have given rise to a calving percentage well above average. This would seem to be the case with the surveyed cattle where 67 calves were found in the herd of 386 head giving a calving percentage of approximately 55%. Only the 1980 drought and the subsequent good rains and reduced pressures on the veld can explain a percentage as high as this in an area such as that surveyed.

3.4 Take-off Rate

The Annual Report of the KwaZulu department of Agriculture and Forestry 1981/82 reports a slaughter rate of 4.78% and a sales rate of .86%. The figures for Nkandla for 1982/83 give a slaughter rate of less than 4% and a sales rate of less than .05%. In Bates survey in Sithole ward sales were .45% of the herd in 1965. In this survey the take off rate was 7.7% - 6.7% slaughter and 1% sales. (The apparently higher than average slaughter rate may be explained by the fact that a

1. This is not an exact figure as we have had to estimate the percentage of the herd that were breeding stock.
number of respondents purchased animals specifically for slaughter so that although the slaughter was recorded in our figures the animal would not have appeared in the cattle count at the beginning or the end of the year. The majority of the seven head of cattle purchased by respondents in the twelve months preceding the survey were stated to have been purchased specifically for slaughter). No figures were available for percentages of the herd transferred in lobola transactions other than in this survey where 10% of the herd was either transferred or acquired in such transactions.

3.4.1 Sales

Erskine (1982:1) states that 75% of production is non-market; in the area surveyed it could almost be said to be 100%. Sales are not intended. There are no local markets or auction sales and all questions concerning sales were greeted with laughter. A local storekeeper reported that although he had brought 100 head into the district for resale in 1982, he had only been offered 4 for sale by the community, who he said only contemplated sale in dire circumstances - such as severe illness or the arrest of a family member. Figures for the entire district of Nkandla are similar - whereas 870 head were brought into the area in 1982/83, only 37 were sold out of it. In the survey only two instances of sale were recorded - and in one it was meat rather than the animal that was sold. A man slaughtered a beast and then sold the meat for R70. In the second case a man involved in a land dispute who had been unable to use his land for three years sold three head in order to support his family. (The man's wife told us that on the day the cattle were
sold their kraal had burnt down - she clearly thought the two events were connected). The average price per head received for this sale of three head was R300 which from conversations with community members appeared to be considered above average.

3.4.2 Lobola

Whereas during the year preceding the survey only 7 head were purchased and 4 head sold, 40 head were transferred in lobola transactions - 31 being acquired and 9 transferred out of their various herds. Clearly relatively speaking sales are an insignificant means of increasing the herd or realising the economic value of the cattle.

3.4.3 Slaughter

Only 6.7% of the herd surveyed was slaughtered during the 12 months preceding the survey. Animals were slaughtered to mark significant social events - death, coming of age, marriage, return of an important family member (particularly at Christmas and Easter-time) etc. We have already stated that a significant number of the cattle to be slaughtered were specifically purchased for this purpose and the fate of the three pedigreed Zulu bulls related in Chapter IV, 3.9.2, further illustrates the preference to kill an unknown animal, rather than one of the established herd, when the need arises. The age, fertility and economic value of an animal does not appear to be of prime importance when selecting an animal for slaughter.
3.5 Costs of Cattle Holding

Although no costs are incurred feeding stock and almost none on veterinary products there are hidden costs involved in cattle care. Cattle kraals must be built, cows must be milked, animals must be put out to pasture and brought in daily and for half of the year they must be herded. Regardless of the size of the herd each herd tends to be herded and cared for separately. Most herds are cared for by the young boys of the household at no expense to the owner. Where there were no young boys in the household or where parents were unwilling to take children out of school, the cattle are cared for by an older male household member or by a young boy, usually a relation, who will come and live at the homestead specifically to look after the cattle. However, even he is unlikely to be paid, probably receiving only food and lodging and maybe a goat when his years of service are over. Such a person is probably a poor relation whose parents either cannot afford to send him to school or do not believe in schooling. We did not specifically ask the question "Do you have children at home herding cattle?" but nevertheless spontaneously obtained a figure of 11.1% of the boys between the ages of 7 and 16 who were kept at home specifically to herd cattle. Overall 49.5% of boys of this age group were not at school and certainly significantly more than 11% of them were caring for cattle. Over and above those permanently at home other school going boys are taken out of school on dipping day throughout the year to drive the cattle to the dip.

Although no actual expenditure is incurred herding it clearly is a hidden cost of cattle production. Not only are the herdboys
sacrificing their future by remaining uneducated but they are doing so on grounds which even currently are uneconomic - caring for an average of only 7.8 head each. It is not possible to put an accurate monetary value on the cost of cattle care but one must bear this cost in mind when evaluating cattle production as a source of income.

3.6 Income from cattle holding

3.6.1 Sales

Only two sales were recorded among the cattle surveyed (one of one and the other of three animals). The animal slaughtered for meat realized R70 and the three sold live an average of R300 each.

3.6.2 Lobola

Additional cattle received as lobola cannot be considered income received as a result of cattle holding as the cattle are acquired as a result of a social contract which has nothing to do with the cattle holding of the recipient.

3.6.3 Slaughter and the consumption of meat from dead animals

6.7% of the herd surveyed were slaughtered during the 12 months preceding the survey and another 6.7% died. In both cases the household would have benefitted through the consumption of red meat. It is however exceedingly difficult to put an economic value on cattle
slaughtered for home consumption and more difficult still on meat taken from animals which have died. Firstly, although the household may have gained protein they have lost an asset - either a bull, an ox (which could be used for ploughing) or a cow (which could produce calves and milk). Secondly, it would be unrealistic to attribute full market value to the animals both because market prices are not normally realized in that area and because uneconomic use is being made of the animal. Much of the carcass will have to be shared with relations and neighbours if it is not to go bad. One slaughtered animal needing to be eaten within a couple of days is not of a value to the household equivalent to 3 kgs meat per week throughout the year. We furthermore have no details on the weights of the animals which died and which were slaughtered. With regard to those that died the majority would have been young animals, probably those weaned earlier than they should have been because their mother's milk had dried up. Whereas the usual animal dresses out at 50% of its live weight, a dead animal will probably yield a carcass of 35% of live weight.

So that we might finally calculate incomes per capita in the area it has been necessary to place an arbitrary value, where the actual value is unknown, on all benefits received as a result of cattle holding and we have therefore valued a slaughtered animals at R100 and a dead animal at R25. Although these figures do not represent the value of the animals "as such" we consider them approximate figures of the value to the owner as meat.
3.6.4 Milk

Households with lactating cows clearly benefit from taking milk from these cows. Zulu cattle are not naturally good milkers and on poor and overgrazed veld they will yield even less milk than they might otherwise. The calves undoubtedly should take all the milk if they are to grow as they should. However, most households take some milk which is consumed as milk or maas. If the grass is in reasonably good condition, at the beginning of the period of lactation, a household might be able to take as much as 2 litres a day from a cow, but by the end of the 220 day lactation period this will decrease to perhaps only 500 ml per day. Over the entire 220 day lactation period the household will probably obtain an average of 750 ml a day. Where there is a calf in a homestead and the cow is therefore lactating we have added R55 per annum to the household income - being the value to the household of the milk taken during the lactating period (roughly 220 days x 750 ml at 35c litre).

3.6.5 Ploughing

Where a household owns oxen and a plough, it is possible to earn income through ploughing for others. 33% of households had their own oxen and 36% their own ploughs. In order to plough for others, it would be necessary to have an able-bodied male at home to lead the operation. Furthermore, unless the initial rains fall early enough, a person would be unable to complete his own ploughing early enough to enable him to plough for others before the time for planting had passed. In practice only 16% of the households surveyed received any
income from ploughing for others, and the areas of land they found time to plough were extremely small. The average income earned from ploughing for others by those households who did so was R27, and the whole community surveyed realized only R284 from this source.

3.7 Economic Value of Cattle Holding

In order to put a figure on the economic value of cattle to the community it is necessary to evaluate all income from this source - whether from sales, meat, milk, ploughing fees etc. - and to deduct all expenses incurred for labour, medicine, kraaling, the use of natural pasture etc. Furthermore, it is necessary to balance acquisitions through births, purchases or lobola against losses incurred through deaths, sales or lobola. It is impossible to accurately evaluate many of these inputs, costs or benefits - for example, the use of natural pasture or the labour of the family - so that any figures given can only be very approximate. It is however, sufficiently important to be able to put some economic value on cattle holding to make the use of such approximate and in some cases unsubstantiated figures acceptable.

The herd of those households surveyed consisted of 386 head. Of these, 67 were calves. We do not have actual figures for breeding stock, oxen etc. but making use of the percentages at the surrounding dips and the mortality figures for the area we can estimate a herd breakdown as follows:

- 67 calves
- 57 1 year olds
- 51 2 year olds
- 139 breeding cows
- 71 bulls and oxen
Valuing fully grown animals at R300, 2 year olds at R200, 1 year olds at R100 and calves at R50, the value of the herd surveyed was R822 500.

During the 12 months preceding the survey 67 calves were born, 7 head purchased and 31 acquired through lobola transactions. During the same period 22 died, 22 were slaughtered, 4 were sold and 9 transferred under lobola transactions. Thus during this period, the herd grew by 48 head or 12.4%. The mortality rate during the 12 months preceding the survey as stated earlier was lower than the long-term average. The natural growth rate of the herd calculated by balancing births against deaths shows that the herd increased 11.6% during the period.

During the same period, R970 was realized from sales, R4 220 was added to the household income in the form of meat from dead or slaughtered animals and R3 685 in the form of milk consumed by households. R284 was received in income from ploughing for other households.

Thus the herd added R9 159 to the disposable income of the community - little more than a return of one percent on capital. This figure, moreover, has not been adjusted to take into account the costs incurred in generating this income (because of the difficulties associated with estimating costs) nor does it reflect the reduction in capital assets which is the necessary result of generating income through sale or slaughter.

There was of course an increase of R3 350 in capital assets in the form of calves which to some extent balances the reduction caused by
deaths, sales, slaughter and lobola. Similarly, disposable income which was saved and invested in cattle resulted in an increase in capital assets, as did lobola acquisitions. Using the same rough estimates to establish a value for calves born, cattle purchased or acquired by lobola as against cattle dying, sold, slaughtered or transferred under lobola transactions, we find that the herd decreased in value by R450 or .05%. Although the herd had grown in size most of the increase was in the form of calves.

3.8 Future Potential for Increased Income from Cattle Holding

The income from cattle holding could undoubtedly be increased by improving the veld, increasing the quantity and improving the quality of the cattle, correcting the bull/cow ratio, increasing fertility rates, decreasing mortality rates, increasing sales, rationalizing slaughter etc. but there are, however, certain constraints on achieving each of these objectives.

The households surveyed form approximately 14% of the total number of households in the area of survey which was 3,500 hectares. Presuming an average cattle holding similar to that of those surveyed, there is approximately one animal to 1.5 hectares in the area. This does not take sheep and goats into account.

3.8.1 Veld improvement and an increased stocking rate

If the veld were allowed to recover, it would be able to support a heavier cattle population - probably one large stock unit per hectare.
Not only could the stocking rate be increased if the veld recovered, but herd health would improve too. If, in addition, specially suited grasses were introduced into the area, the stocking rate could be increased and herd health improved even further. However, getting the veld into this condition would require sacrifice and expense and the co-operation of the entire community.

3.8.2 Herd rationalization, quality improvement and an increase in fertility rates

An increase in the calving percentage, an improvement in the quality of the herd and the rationalization of relative numbers of bulls, oxen, cows, heifers and calves in a herd are dealt with together as they are in general inter-related and inter-dependent.

Currently, the quality of cattle in a herd is often poor, the calving percentage too low and the breeding stock too small a proportion of the herd. These are the inevitable results of viewing cattle holding in terms other than economic ones.

In an area such as that surveyed, a calving percentage of 60% could be achieved if the veld were improved, infertile cows culled and access to bulls ensured. The current average calving percentage is approximately half that - except in the year following a severe drought for reasons discussed above¹. Improving the veld, culling

---

¹. Section 3.3.
infertile cows and ensuring access to bulls should improve the calving percentage but in order to increase the actual number of calves born annually, the percentage of the herd which is breeding stock should be increased.

At present there is no policy of removing unproductive animals from the herd in order to reduce pressure on the veld. If under-utilized bulls, oxen too weak to plough, infertile cows, bull calves and all heifers not required for future breeding programs were sold or slaughtered it would be possible to increase the actual numbers of calves born by raising calving percentages, and to improve herd health, to allow the veld to recover and, as a result of all these changes, to increase income from cattle.

At present little if any attention is directed to improving the quality of the herd. Selection is not practiced with regard to bulls and breeding cows nor is there any attempt to improve quality by improving the veld or sacrificing the human consumption of milk in favour of that by the calves. As long as humans suffer from malnutrition it will be difficult to justify giving to calves milk that might otherwise be a valuable food source for humans.

3.8.3 Decreased mortality rates

A decreased mortality rate would naturally follow an improvement in the veld, greater selection of breeding stock and a sacrifice of human milk consumption. Easier access to veterinary services would also decrease mortality rates.
3.8.4 Increased sales

Increased sales are essential not only to increase income from cattle holding but also to avoid undue pressure on the natural veld. As herd management and herd health improves so the need to sell will become greater. If herd rationalization, increased fertility, improved pastures and improved health result in an increase in the rate of herd growth, as they must, the improvement will be short lived unless increased sales follow. If increased sales do not occur the resulting renewed deterioration of the veld will lead to a reversal in all other improvements in the herd. At present there is a general reluctance, or indeed in some cases a refusal, to sell. Nothing will be achieved by increasing the income generating capacity of the herd unless a willingness to realise this capacity is simultaneously developed in the community.

3.8.5 Rationalizing slaughter

When selecting an animal for slaughter the value of an animal other than as meat does not appear to be taken into account in the area surveyed. As a result of traditional beliefs and human/animal linkages there appears to be reluctance to slaughter an animal that is a member of an existing herd so that where possible an animal will be 'bought in' for slaughter and slaughtered even where there are other animals in the herd which are less valuable as bulls, breeding stock or oxen than the purchased animal. A change in this behaviour pattern would lead to more rational usage of a herd and the enhancement of its economic value. Currently a fertile cow may be slaughtered in
preference to an infertile one, a bull may be slaughtered where there is no other in the herd, or an ox capable of ploughing killed in preference to one too weak to plough. Although such actions may be explicable socially, economically they are not, and their supercession by more logical practices would lead to increased income from cattle holding.

3.9 Restraints on Increasing Income from Cattleholding

3.9.1 Divided control and uneconomic herds

All the above suggestions for increasing the income earned from cattle holding would be effective if all the cattle in the 3 500 hectares surveyed formed one herd and were subject to the control of one individual or body. However, in fact the cattle form a large number of separate herds which average 7.8 head in size and each of which is subject to the control of an independent individual. Even under ideal conditions herds so small would be uneconomic and in reality, apart from the eroded and poor veld, one finds herds without bulls, herds with underutilized bulls, herds with infertile cows, herds consisting chiefly of oxen too weak to plough, all of which serve to reduce the possible income from cattle. Where herds so small exist and there is no overall planning authority it becomes impossible to plan to improve the communally used veld, rationalize herds or decrease mortality rates. There has to be some overall authority capable of implementing veld improvement programs just as herds must either increase in size or animals be shared to ensure the economic use of bulls, oxen and cows and the removal of undue pressure on the veld.
3.9.2 Traditional attitudes

Merely to talk of increasing income from cattle holding implies changes, and to suggest actual changes implies questioning traditional practices. It implies not only questioning traditional practices but also altering them and this cannot be achieved without intensive education and the concurrence of the community as a whole. The facts are that people in the area surveyed do not primarily view their cattle in economic terms. They do not look upon them as a source of income. They do not intend to sell them and therefore they do not adopt the breeding or management practices that someone contemplating sale might. Where therefore an individual contemplates changing his traditional behaviour with regard to cattle and looking upon them as a source of livelihood, he will be deterred from this new approach by the knowledge that he cannot act in isolation and that while others who have equal access to the natural pasture etc. do not share his changed views, he will be hindered from putting them into practice.

The re-education process necessary before a change in the attitude to cattle holding occurs should not be underestimated. The experience of the chairman of the local farmers' association serves as an illustration of this point. He owned a store in the area and although not born there, was totally committed to the area and concerned to improve agricultural practices in it. For a number of years he put forward suggestions for improving the natural veld and proposed the idea of obtaining registered Nguni bulls to improve the quality of the local herd. In 1982 he eventually got the opportunity to buy 3 such bulls and it appeared that the local farmers were concerned to improve
the quality, rather than just the quantity, of their stock. It seemed that there were those who were contemplating selling at least some of their herd and were concerned to receive the highest prices possible for them. This would have signified an important change in traditional behaviour as, even at the height of the 1980 drought, there was no increase in the reported number of sales - people did not appear concerned to realize from an animal what they could before it died.

However, this significant attitudinal change had clearly not in fact taken place because within one year of the chairman of the farmers' association's selling the bulls to various farmers in the community, the bulls had all been slaughtered. Although the individual farmer may have been inspired to buy the bull by a desire to improve his herd and increase income from it, when the need arose to slaughter an animal, he chose to slaughter the purchased bull rather than one of his original herd despite the greater economic value of the purchased bull and the fact that it was the key to improving the quality of his entire herd. Traditional behaviour was still too strongly embedded in the individuals concerned to allow the logical development of their new ideas.

3.9.3 The absence of markets

Where individuals were desirous of obtaining income from cattle sales, their only option was a 'private sale'. There were no auctions or cattle sales in the area. There was no well established procedure by which someone could sell an animal when he so desired. Where people do not normally engage in such behaviour, such mechanisms cannot develop.
Nevertheless their absence undoubtedly discourages sales.

3.10 Conclusion

Before income can be increased from cattle holding, the veld must be allowed to recover and if possible improved, herds must be rationalized and either increased in size or decreased in number and bulls shared, the quality of the herd and herd health improved and the farmer educated to look upon his cattle as a source of income. A breeding programme should be developed so that the grass is at its most nutritious when the greatest demands are made upon it and all inessential animals should be sold before winter so as not to place an unnecessary burden upon the pasture.

Income from cattle undoubtedly could be increased and the stocking rate in the area somewhat increased. This should not, however, be seen as the means to improve the income of the entire community. The area is not capable of supporting its entire population in this way and in order to become economic, herds need to be concentrated into fewer hands or run co-operatively. Land is limited and even where all other conditions are ideal, the capacity to support the entire local population through cattle rearing is definitely not there. Similarly, in order to overcome present constraints upon increased income from cattle holding, significant new sources of capital will have to be made available and considerable educational effort put into overcoming traditionally restrictive beliefs and practices. In the immediate future cattle holding's greatest benefit to the community may well be as the means to improve the capacity for saving.
3.11 Holding of Animals other than Cattle

Other than cattle, there were recorded in the survey 203 goats distributed amongst 40% of the households, 31 sheep amongst 9%, 11 pigs amongst 7%, 6 donkeys amongst 4%, 23 ducks amongst 10% and 1,006 chickens amongst 97%. Sales of stock other than cattle were only marginally more common than those of cattle. 25% of households reported sales - almost all relating to poultry. Only one household reared poultry for the purpose of sale - the balance merely agreed to sell as a favour to the purchaser.

There is undoubtedly an income creating capacity here that is not being exploited. The usual constraints - lack of capital, lack of land and traditional beliefs - are no doubt responsible. However, the market is "on the doorstep" in this case, and if the necessary capital were available to enable farmers to buy stock, buy food and fence and otherwise protect these animals, the scope for using small stock as a source of income could be significantly extended.
CHAPTER V

QUALITY OF LIFE

1.0 INTRODUCTION

This chapter deals with the survey community's access to basic amenities and the factors determining their availability or non-availability. In certain spheres this was a relatively favoured community with ready access to, for example, water and fuel. With regard, however, to the amenities associated with a developing society this was a seriously disadvantaged community both in real terms and in relation to their fellows elsewhere in the country.

2.0 EDUCATION

Education in a developing community is a matter to which people attach particular importance. It is generally considered an essential prerequisite for the progressive development of the area and any improvement in the quality of life of the inhabitants. We would therefore expect the people interviewed in this survey to show concern about the position of education in their area and for the educational statistics in the area to exhibit great fluidity. Despite their own relative lack of education respondents were concerned about education and rated it (along with health and agriculture) as the second most important source of dissatisfaction in the community.1 The statistics do indeed show education to be in a state of fluidity.

1. Appendix A.
2.1 Current Statistics

Before commenting on the educational situation of those surveyed it is necessary to describe it in some detail.

2.1.1 Schools, pupils and teachers

In the Nkandla magisterial district in 1982 there were 28 349 pupils in 100 primary, 15 junior secondary and 3 high schools. In 1983 there were 32 457 pupils in 113 primary, 17 junior secondary and 5 high schools. The pupil enrolment indicates an annual increase of almost 15%.

In the area surveyed there were 4 schools - all of which drew children from an area far greater than that surveyed. In 1982 they provided education from Sub-Standard A to Standard 7. By 1984, the Junior Secondary school will have a Standard 8. (The nearest high school is in Nkandla, 30 kms away).

A total of 781 pupils attended these four schools and were taught by 25 teachers. Only 6 of the teachers were qualified. There were 11 classrooms and 4 nearby church buildings were used as additional classrooms. Approximately 58% of the pupils were males. The ages of the pupils were extremely varied. In the sub-standards ages ranged from 4 to 15 and at the secondary level from 15 to 25. All high school pupils have to attend school out of the area and therefore

1. One high school consisted of a Standard 9 class only.
board. There are no centres of adult education. The agricultural extension officer alone could be said to be involved in adult education.

TABLE 22

EDUCATIONAL STATISTICS FOR SCHOOLS IN AREA SURVEYED

<table>
<thead>
<tr>
<th></th>
<th>Nhlababo</th>
<th>Sibhudeni</th>
<th>Enyawoshana</th>
<th>Bhilibana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of pupils</td>
<td>129</td>
<td>451</td>
<td>166</td>
<td>35</td>
</tr>
<tr>
<td>Number of teachers</td>
<td>4</td>
<td>12</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Number of qualified teachers</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Number of classrooms</td>
<td>-</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Number of &quot;other buildings&quot;</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Longest distance travelled to school</td>
<td>8 kms</td>
<td>12 kms</td>
<td>7 kms</td>
<td>15 kms</td>
</tr>
<tr>
<td>Males</td>
<td>71</td>
<td>251</td>
<td>-</td>
<td>35</td>
</tr>
<tr>
<td>Females</td>
<td>58</td>
<td>200</td>
<td>-</td>
<td>35</td>
</tr>
<tr>
<td>Classes offered at school</td>
<td>SSA</td>
<td>SSA</td>
<td>SSA</td>
<td>Std 6</td>
</tr>
<tr>
<td></td>
<td>Std 3</td>
<td>Std 4</td>
<td>Std 4</td>
<td>Std 6.7</td>
</tr>
</tbody>
</table>
2.1.2 Distance from schools

Although the primary schools were well distributed throughout the surveyed area, many pupils' homes were some distance from the schools. There is no public transport available and in fact few pupils even had roads to walk along. Teachers estimated the longest distances walked each way daily by pupils to the various primary schools as follows - Enyawoshana 1.5 hours or 7 km, Nhlababo 1.75 hours or 8 kms, Sibhudeni 2.5 hours or 12 kms. The Junior Secondary school was situated in one corner of the area surveyed which meant that pupils travelled longer distances on average. The furtherest distance travelled was said by the principal to be 15 km or a 3 hour walk.

2.1.3 Cost of education

School fees varied according to standard and ranged from R1.20 to R4. Respondents maintained that no one would be dismissed for non-payment. Although the KwaZulu Education Department does supply some textbooks, pupils are basically responsible for supplying their own text and exercise books. Unless parents co-operate with one another or the teachers privately collect money and buy the books on behalf of the parents the purchase of books necessitates a 50 km journey to Eshowe for each parent. Although many pupils, particularly those in the higher standards, wore uniforms school uniforms were not compulsory.

Over and above school fees, pupils are required to contribute approximately R10 per annum to the building fund. This is necessary owing to the system for the provision of schools in the area. All schools are community schools and are only built as a result of community or individual initiative. The government plays no part in
determining the need for or initiating the building of a school. Having decided to establish a new school (or enlarge an existing one) the person or people concerned have to obtain permission to proceed from the local circuit inspector in the KwaZulu Department of Education and culture. They must then approach their chief for approval of the scheme itself and the site on which the school is to be built. Thereafter they must collect the money to build the school. Once they have sufficient funds they may proceed to build the school and when it is finished to employ teachers and fill the school with pupils.

Once all these tasks have been completed according to departmental specifications the school committee may apply for a subsidy (normally approximately half the building cost) which the department will pay when it has sufficient funds. The department will also take over staffing and the payment of staff once the school is established\(^1\), at which stage the school principal or school committee will probably accept responsibility for initiating any further developments, although in a number of cases the community appeared to rely on the individual who had motivated the initial project to promote further developments if and when necessary.

2.1.4 Educational levels of those surveyed

Table 22 above illustrates the educational facilities in the area. Having tabulated them we can assess their adequacy and degree of penetration by reference to those people covered by the survey. Table

1. Enyawoshana School in 1983 embarked on a program of building 3 class rooms for R21 000. They had to collect the entire sum before commencement. The headmaster stated that they hoped to receive their subsidy 8 months after completion.
23 below compares statistics taken from the survey with those for the magisterial district of Nkandla, those for KwaZulu and those for a subsequent survey done in Isithebe.

As can be seen the vast majority of the scholars surveyed (88%) are between 7 and 16 years of age and we have therefore throughout this paper used this age group when calculating educational statistics such as percentage at school etc. The national population census does not unfortunately use this age group. Therefore we have had to use the 10 year age group 5 - 14 as being the closest available for comparative purposes. It should be noted that the 5 - 14 age group both nationally and in the survey is larger than the 7 - 16 age group.

The figures appear to indicate that the area surveyed is very backward educationally. There is no obvious reason why education levels should be worse here than in any other part of the Nkandla district with the exception of the town of Nkandla itself. It is as well placed as most with regard to distance from and transport to urban centres, it is better off than most with regard to fuel and water, is neither overcrowded nor underpopulated and appears to have an above average cattle holding. It is possible that there are fewer practising Christians in the area than elsewhere and certainly the local chiefs are not Christians. Considering the part played by the churches and more particularly individual priests in promoting rural education this could partially explain why there has been less educational progress here than elsewhere.

Apart from there being no obvious reason why educational levels should
TABLE 23

COMPARISON OF SCHOOL GOING POPULATION IN SURVEY WITH THAT OF KWAZULU, NKANDLA AND SUNDUMBILI SURVEY (1)

<table>
<thead>
<tr>
<th></th>
<th>KwaZulu</th>
<th>Nkandla</th>
<th>Survey</th>
<th>Sundumbili</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of community</td>
<td>3 377 240*</td>
<td>99 380*</td>
<td>764</td>
<td>792</td>
</tr>
<tr>
<td>Percentage in 5 - 14 age cohort</td>
<td>29.0%*</td>
<td>30.6%*</td>
<td>27.1%</td>
<td>26.0%</td>
</tr>
<tr>
<td>Percentage of total population</td>
<td>24.7%#</td>
<td>28.8%+</td>
<td>12.8%</td>
<td>31.9%</td>
</tr>
<tr>
<td>at school</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number at school as percentage</td>
<td>85.3%</td>
<td>93.0%</td>
<td>47.3%</td>
<td>118.93%</td>
</tr>
<tr>
<td>of 5 - 14 age cohort</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male percentage of school</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>population</td>
<td>52.0%</td>
<td>55.0%</td>
<td>47.75%</td>
<td></td>
</tr>
<tr>
<td>Number at school as percentage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of 7 - 16 age cohort</td>
<td>46.0%</td>
<td></td>
<td>118.93%</td>
<td></td>
</tr>
<tr>
<td>Percentage of scholars in 7 -</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 age cohort</td>
<td>88.0%</td>
<td>77.6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Figure taken from 1980 Population Census.
# 1979 Report of KwaZulu Department of Education.
+ Number of pupils 28 349 (figure supplied by Circuit Inspector)

1. Decentralized Industry, Poverty and Development in Rural KwaZulu.
be worse here than elsewhere, when one compares the educational levels of the 5 - 24 age group in the survey with those of the whole of KwaZulu there is a remarkable similarity, suggesting that perhaps educational levels are not in fact worse here than elsewhere. A possible explanation for the apparent backwardness of the area might be an undercount in the 1980 national census, which would have resulted in showing a higher percentage of KwaZulu's and Nkandla's population as being at school than in fact was the case.

TABLE 24

EDUCATIONAL LEVELS OF PERSONS IN THE 5 - 25 AGE GROUP

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>KwaZulu*</th>
<th>Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>No education</td>
<td>57.88</td>
<td>55.0</td>
</tr>
<tr>
<td>SSA - Std 2</td>
<td>27.66</td>
<td>29.5</td>
</tr>
<tr>
<td>Std 3 - Std 5</td>
<td>11.11</td>
<td>11.5</td>
</tr>
<tr>
<td>Std 6 - Std 8</td>
<td>3.14</td>
<td>3.5</td>
</tr>
<tr>
<td>Std 9 - Std 10</td>
<td>0.3</td>
<td>0.5</td>
</tr>
</tbody>
</table>

N = 342

* Erskine (1982:1)

1. See Table 24.
2. See Appendix B.
2.2 Chief Educational Problems in the Area Surveyed

Whatever way one looks at it, it is clear that the area surveyed is far from achieving universal literacy and that there is a great deal of room for the expansion and improvement of educational facilities. More specifically the educational problems of the area can be enumerated as follows:

2.2.1 Insufficient Schools

There are undoubtedly insufficient schools for the number of children in the area. Some of the existing schools will have to be enlarged and other new ones built if all children in the area are to be offered an education - something which is only the case for 46% of the 7 - 16 age group at present.

2.2.2 Inadequate buildings, furniture and books

The existing buildings and their furniture are inadequate for the current school population. The 746 primary school pupils are squeezed into 8 classrooms and 4 rooms in church buildings. There is very little furniture in any of the schools - only the senior classes appear to have desks - and not many books are provided.
2.2.3 Quality and quantity of teaching staff

Although relatively well supplied with teachers (1:35) there are no administrative staff in any of the schools and only a quarter of the teachers are qualified. The circuit inspector stated that teachers were unqualified because of a general shortage of qualified teachers in KwaZulu, not because the area was remote and no housing was available etc. Principals in these schools were forced to rely on volunteers drawn from those in the community who had had a little education themselves to fill the teaching posts at the schools.

2.2.4 Pupil distance from schools

The distance of the schools from some of the homesteads gives rise to a number of problems. 17% of respondents stated they were more than 2 hours walk from the primary school, 40% more than 1.5 hours and 69% more than one hour. When it came to the higher primary and junior secondary school 20% stated they were so far from the school that their children would have to board in order to attend. Of those who were within walking distance 39% were over 2 hours from the school and only 18% less than 1 hour from the school. The need to travel these terrific distances over very rugged terrain and to cross unbridged rivers which can rise dramatically after a storm means that children often start school older than they might otherwise. They wait until they are considered old enough to undertake the journey or until there are a number of siblings old enough for school who can leave the house together each day.
Distance leads to increased absenteeism when it is very hot, very cold, raining hard or when a child is not feeling well or strong or is simply weak - perhaps from hunger. The principal of one primary school estimated absenteeism to be as high as 25% each day. The principal of the higher primary school said absenteeism was 7% daily but rose to 20% when the weather was bad. There were a large number of children in the homesteads we visited who said they were scholars but who were at home that day for one reason or another. Because they leave home so early the children are unlikely to eat well before departing and are therefore hungry all day at school and are frequently incapable of concentrating. They arrive home in the evening tired and hungry and often in the dark. There is little chance of any homework being done. One principal stated that owing to the distances to be travelled and the absence of lighting and work tables at home teachers realized that little importance could be attached to homework. This is but one example of the difficulties experienced by rural children which tends to exacerbate their already educationally disadvantaged position.

The estimates of time taken to get to school tended to be based upon the time a child actually left home each day rather than pure walking time and as there is, no doubt, a certain amount of playing and dawdling on the way they probably somewhat inflate the time required. However, distances and the time taken were checked with principals and as can be seen from Table 40, considerable distances had to be travelled to each school. Every journey moreover, necessitates a certain amount of steep hill climbing.
Of those respondents who were dissatisfied with the local educational facilities 75% made a complaint that was in some sense related to distance. They complained that there were no local schools, that the local school did not go far enough necessitating travelling long distances to higher primary and secondary schools, and that there was no high school in the area which lead to the increased costs of boarding if one wished to continue a child's education. However, it should be pointed out that there were also those who considered a school 2 hours walk away to be "close."

2.2.5 Age of pupils

Owing to a number of factors, such as distance to be travelled, the need for company, the cost and the need to perform certain chores at home the ages of scholars tend to vary enormously. We have seen that 88% of those at school were in the age group 7 - 16 but some were as young as 4 and others as old as 25. Of those surveyed the ages of those in the sub-standards ranged from 4 - 15, in standards 1 to 4 from 9 to 18, in standards 5 - 8 from 15 - 18 and there was one matriculant aged 25. One of the teachers interviewed mentioned the difficulties of simultaneously teaching a thirteen year old girl and a 21 year old boy in the same Standard 6 class. However, notwithstanding these difficulties, until circumstances have changed so much that it is possible for all children to start school at the same age and continue their schooling without interruption, it would be totally unacceptable to restrict intake into certain classes on the ground of age.
2.2.6 Number of years spent at school

The number of years spent at school also varies greatly. Of those currently at school, 43% were in the sub-standards, 47% in standards 1 to 4, 9% in standards 5 to 8 and 1% in Standard 10. Of those who had received some education (some of course were still at school) 83% had received between 1 and 6 years (26% 1 or 2 years), 15% between 7 and 10 years and 2% 11 or 12 years. It is generally considered that a minimum of six years is required in order to retain literacy and bearing in mind that only 5.6% of the community had passed beyond Standard 4 it is not clear of what value to the community most of the education presently being received actually is.

2.2.7 Cost of schooling

The opinion that schools were too expensive was expressed by 15% of those who were dissatisfied with education in the area. As we have seen the costs connected with schooling are not great and interviewees maintained that no one would be evicted for non-payment. However, the costs should be viewed in the light of the current cash income levels in the area. The relevance of cost to attendance at school is supported by the fact that the incomes per capita in households where children in the 7 - 16 age group were not at school were on average 21% lower than those where all the children in that age group were at school. A number of respondents gave the expense as the reason why one or all of their children of school going age were not at school, some maintaining that only one or perhaps two children could be sent to school at a time. In cases where only some of the family was sent
to school there was an apparent preference to send boys over girls despite the fact the boys are needed to herd cattle. 49.15% of the boys aged 7 - 16 were at school whereas only 42% of the girls were. Boarding school does involve considerable expense and some respondents stated that they removed their children from school earlier than they might have done otherwise because of the cost of boarding. Boarding costs seem to have averaged out at R10 per month although a respondent claimed having to pay R10 a week because the "landlord was not a relative." There are no boarding facilities provided by the government. Only 3% of those in the 7 - 16 age group were employed so that the need and ability to earn cash would not appear to be an important cause of children not being in school.

2.2.8 Migrant Labour System

One of the hidden costs of the migrant labour system is the lower numbers of young boys at school than might otherwise be the case. In every household where there were cattle someone was needed to herd the cattle in summer and to take them to the dip and generally care for them throughout the year. Where all the men are away as migrants this task can only be performed by the young boys or pensioners. Women, because of traditional attitudes, are unable to perform these tasks. Although respondents were not specifically asked who herded their cattle or whether certain children were kept at home for this purpose, spontaneously supplied information showed that 11.1% of the boys in the 7 - 16 age group were kept at home for the purpose of herding cattle. Overall, 50.5% of boys of this age group were not at school and clearly a far higher percentage than 11.1% were actually caring for the cattle. Only 3% were employed. Even amongst those who were
at school, many missed school or at least a few classes every dipping day. Where the school was close to the dip the principal stated that having seen the cattle through the dip some boys would send them home with their mothers and thus avoid missing a whole day's school.

2.2.9 System for the provision of schools

We have described the way in which schools are established in the area. The community, in general terms, seems to understand the system. When asked who was responsible for the provision of education in the area of those who gave a definite answer, 47% answered "the community," either alone or in conjunction with the chief or the government. Eight percent limited the responsibility to parents, 15% to the chief and less than 1% to the government. A surprising 14% placed this responsibility upon "individuals" - no doubt a reflection of the actual history of school building in the area. Although these schools are "community schools" someone has to take the initiative if a school is to be built. We have mentioned that the local chiefs were themselves uneducated and did not attach particular importance to education, something they considered of interest to Christians only. They therefore are unlikely to initiate such projects. One would expect the young fathers of the area to be amongst the initiators of school building programs, but they are on the whole away as migrants.

A number of female respondents stated that only women were interested in education with the result that schools never got built. It is not clear that the men are really uninterested - they may be simply absent. The women, however, feel unable to undertake such projects.
and in fact all four schools in the area were founded on male initiative. Traditional attitudes would no doubt make it difficult for a woman to co-ordinate a project in which large sums of money were called for from the community.

Priests and storekeepers in the area have played a very important role in the establishment of schools with the result that today the community relies on their successors to tell them when any further buildings are required. In the case where a lay member of the community had organised the building or a school, his action was explained on the grounds that "his father was a methodist preacher so he knew about education." Once a school has been established, the school principal may accept the responsibility for motivating the community to enlarge the school or to add higher classes to it. The only role played by the Department of Education is to inform a school that it has insufficient classrooms for its pupil enrolment and that it must either build more classrooms or reduce the enrolment.

Despite the fact that the chiefs show no particular interest in education, they do still have considerable powers in this area. They have to approve a school building project and the site on which the school is to be built. A number of respondents complained that although they had collected money for the building of a school in a particular area the chief had in fact, when the money had been handed over to him as required, built the school, not in the area that had provided the initiative and the money, but in a situation more convenient to his own home.
The KwaZulu Department of Education is not able to survey a particular area, assess its educational needs, place schools strategically and ensure a logical correlation between primary, secondary and high schools. As it has neither the funds to build all necessary schools nor the staff to survey or build, it can only rely on the community to provide schools and leave it to the chiefs to position them where they want them rather than where they are most needed. The local administrative machinery consists of chiefs and indunas and all negotiations have to take place through them. The result is that such activities become divided according to tribal wards rather than according to the distribution of the population and need for education in a particular area. The fact that transport links and community centres have developed independently of the boundaries of chiefs’ wards makes the provision of education on this basis even more unsuitable.

2.2.10 Parental attitudes

We have stated that the community surveyed was concerned with educational matters and considered educational problems to be amongst the most important problems they encountered. Fifty seven percent of the respondents expressed themselves as being dissatisfied with the quality of education in the area, and overwhelmingly the reasons given related to distance and cost, particularly the cost of boarding.

Although there are clearly insufficient schools to service the entire community no school reported turning any children away on account of lack of space. School attendance in the area is not taken for granted and it is interesting to attempt to discover the motivation
for deciding whether or not to send children to school.

In discussing local schooling problems, we have touched upon distance and cost. These are certainly two factors which militate strongly against sending children to school. We have mentioned too, the very low levels of education of the parents themselves and the fact that the chiefs (among many others) are not Christians and are of the opinion that education is not important, being of interest only to Christians. We have pointed out that there are no adult education facilities in the area and certain spokesmen expressed the view that these were an essential pre-requisite for creating a more positive attitude to education in the area. Some adults fear education and consider educated people "cunning." They fear that it may be "too difficult" for their children. Others aspire to be able only "to read a letter from Johannesburg" and can see no reason for keeping an apparently "literate" eighteen year old at school when he could be earning. The need to be earning would, however, not appear to be a significant reason for keeping people out of school - only 3.2% of those in the 7 - 16 age group were employed. Many more of course were required to fulfil certain duties at home whether caring for cattle, younger children or old people or cultivating crops. 9.6% of the 7 - 16 age group were specifically stated to be involved in such duties - clearly however many more were.

There is also some doubt among parents as to how relevant the education is that their children are receiving. Teachers reported how difficult it was to teach children who found the school environment
totally strange, to whom almost every subject mentioned was abstract and unknown and who failed to see the relevance of much information they were required to retain. One teacher stated that this was however a problem he would have to overcome as despite the "educational backwardness" of rural children there could be no question of considering a different syllabus for them. Any such move would be sure to be seen as a move to supply an education inferior to one that was already considered inferior.

2.3 Conclusion

Accepting the undoubted difficulties associated with the provision and education in rural areas, the educational facilities and levels of education in the area surveyed must be considered unsatisfactory by any standard. They are certainly unsatisfactory when compared with educational statistics for the country as a whole or other rural areas. There is however, no apparent reason why the situation should be worse in the area surveyed than in other rural areas which raises the question as to whether possible population undercounts in recent censuses might not have given rise to artificially high national educational statistics - there being no reason to question the accuracy of the numbers of children actually in school.

It is true that the situation is continually improving - pupil enrolment increases and illiteracy levels fall annually. Whereas 68% of the total number of people surveyed had no education at all, this was true of only 48% of the 7 - 16 age group as opposed to 85% of those over 65 years of age. The speed at which the change is taking
place is however quite unsatisfactory and it is unlikely to improve significantly while the system for the provision of education remains unchanged. There can be no continued justification for providing education in rural areas on a basis different from that in urban areas.

FIGURE 1

POPULATION PERCENTAGE WITHOUT SCHOOLING
3.0 HEALTH

There are no permanent health facilities situated in the area surveyed. The nearest hospitals are at Nkandla, Eshowe, and Mbongolwana and attendance at one of them would require a round trip of at least 60 km even for those who live next to the main road. There is however, immediately to the north of the area a clinic with a resident sister. Despite the fact that it meant a 12 hour round trip for some of the people we interviewed nearly 80% of respondents claimed to use the clinic at one time or another. Most however, seemed to make very limited use of it - for ante-natal care and immunization - and to by-pass it most times they were in need of medical attention. Many expressed the need for a local clinic. It would appear that not only is this necessary but that the existing clinic should be upgraded to provide more services and the public educated as to the services it does and could provide. Mobile clinics visit the area from the Nkandla and Mbongolwana hospitals. They are greatly appreciated but as they only visit once a month they are used mainly for immunization services and cannot be relied on in emergencies.

Although poorly supplied with first-world medical facilities, the area has a surprisingly large number of traditional healers (inyangas). Their high levels of income indicate they are well supported by the community. A school teacher stated “The children are taken to the nearby clinic - the adults go to the inyangas.”

One of the results of there being no medical facilities in the area
was that most of the expressed problems concerning health matters related to transport. We will refer to them in the section on transport.

4.0 WATER

Water is always available from the numerous perennial streams and springs in the area. Respondents reported that even in the 1980 drought they had drinking water although the irrigation of gardens next to streams became impossible. Over 70% of respondents obtain their water from streams and the balance take it from springs. There are no other sources of water. There is no piped water in the area and no attempts have been made to protect springs. No water tanks were observed.

Seventy five percent of respondents took less than 15 minutes to walk to the source of water with a very few claiming to take over half an hour. However, in almost all cases the walk back to the homestead involves a very steep climb. Thus the only problems connected with water stem from a probable lack of hygiene and the topography which results in the houses being placed on the top of the hills while the water is in the valleys. As was said earlier, this means that people have to decide whether to place their gardens in the valleys where they are close to water but prey to animals or close to the house where they can be protected but not irrigated.

1. The hospital reported very low levels of cholera and other water related diseases. The well distributed and relatively small population has meant that in general water supplies, although unprotected, have not become polluted.
5.0 FUEL

Wood for fuel is plentiful and free. Obtaining fuel does not give rise to difficulties and it is not a major item of expenditure. Only one person interviewed used paraffin for cooking - a respondent who was unique in several respects. She spent R7.14 per month on paraffin. Others only used limited amounts of paraffin for lighting. 80% of respondents had access to free fuel from natural forests or their own small plantations. Many grandfathers who had worked in Melmoth on wattle plantations had brought back seedlings which once established were self-sowing and thus perpetuated themselves. Only 15% of respondents had to buy all their wood - but did so locally at very reasonable prices e.g. R5 per gum tree, R1 per wattle. Only two households reported difficulties in obtaining wood for fuel and had to resort to burning cowdung and plaited grass when they ran out of wood. They were in an area where there were almost no indigenous trees left and none had been planted. These households were in many respects worse off than most surveyed - incomes per capita were lower, fewer children were at school etc.

Woodgathering does however involve a large number of people and many hours of labour. The number in a household involved in woodgathering varied between 1 and 5 and averaged 2.6. On average people collected wood 2.2 times per week and spent 2.7 hours on each wood gathering excursion. An average of 19.6 hours per household per week was spent woodgathering.
Most respondents considered the supply of wood plentiful and considered that there was no danger of it running out (69%). However, 19% considered the supply was running out, 5% that one needed to think about a change in the source of fuel supply and 2% that it was finished.

The Nkandla forest itself is a conservation area and no wood cutting is allowed - however, at 5c a time one may go in and pick up wood off the ground. Only one guard cares for the entire forest - an impossible task in an area that size. More effective control is essential as not surprisingly the forest is receding rapidly. Ceteway's grave which was hidden in the forest 100 years ago is now a couple of kilometres from the nearest trees.

6.0 TRANSPORT

There are few roads in the area and fewer cars. The main road, a gravel road, runs along the spine of the hills. Although precipitous on either side, very steep in parts, and extraordinarily narrow on some blind corners it is well maintained and only impassable after heavy rain. Heavy mists rather than the condition of the road are likely to close it. Two buses a day travel to Nkandla and two to Eshowe, thus making it possible to make a return trip in one day. One is however only left with a couple of hours in each centre making it impossible to commute to work and sometimes impossible to complete
one's business at the magistrate's court, hospital, shop etc. Owing to the gradients and condition of the other roads in the area no buses travel along them.

The nearest rail link is at Eshowe 50 km away. Various taxis pass through the area, particularly at weekends, but none appear to be stationed in it. Apart from those of the storekeepers, who all have vehicles, we came across no vehicles which were permanently in the area. Some people did own cars but they were migrants who took them to their workplace. A storekeeper confirmed that there were no vehicles permanently in the area, other than those attached to stores. Nor did we see any carts or wagons. There were sledges and some donkeys which were used for transport. Donkeys alone are capable of reaching some of the homesteads owing to the very broken terrain.

Only one person interviewed used transport daily. 5% could not remember when they had last used transport, 28% only used transport in an emergency, 36% very occasionally, 19% once a month, 5% once a fortnight and 6% once a week. Of those using transport 64% used the bus, 20% taxis, 13% private vehicles (not their own) and the remainder trains, lorries etc.

Respondents were asked where they were going when they last made use of transport. Only one was going to work. 43% were going for medical attention, 28% to visit relatives, 13% to shop, 5% to collect pensions and the remainder to register for pensions, look for work, collect money from a migrant etc. Of those going to visit family the majority were going to visit migrant husbands or sons and would probably be
collecting money at the same time.

It is apparent that the use of transport is the exception rather than the rule and life in the area is basically designed to do without it. The result is that when transport is necessary the basic infrastructure is found to be totally inadequate. Few homesteads have roads worthy of the name within a couple of kilometres of them and the distance between the home and the road always covers extremely rugged terrain. Even when one reaches the road there is no regular transport with which one can connect. The buses, few as they are, only travel down the main road - 12 kms from some of the homesteads we visited. Within the area the only vehicles are based at the local stores. There are no telephones in the area. One positioned just outside the area is occasionally used by 20% of the respondents. When the need for transport arises people walk to the nearest store to ask for help. If it is the store with the telephone they can phone for a taxi or ambulance - if not they appeal to the storekeeper.

Basically people need transport when someone requires hospitalization. As the ambulance tends to be cheaper than a private car people who don't normally use the store with the telephone may walk there to phone the ambulance. This may take some time as some of those interviewed lived 12 km as the crow flies from the store. Having made arrangements to call an ambulance it will then be necessary for everyone, except those lucky enough to have a road leading to their homesteads, to make a stretcher to carry the sick person to the nearest road.
Provided the telephone is working there seems to be little problem in calling an ambulance. The drivers are familiar with the area and appear able to follow the vaguest instructions. 39% of respondents stated that when someone was ill they made a stretcher and carried the person to the phone to call an ambulance, 17% that they carried them to the nearest car which would take them to hospital, 6% that they carried them to the nearest bus, 26% that they sent someone to phone for an ambulance to come as close to the home as possible and 3% that they called a car which would come to the home and then take the sick person to hospital. All these procedures are extremely time consuming and expensive. There seemed to be great confusion as to how much an ambulance cost - according to the hospital at Nkandla the maximum charge was R15 but so many respondents reported charges from R20 to R40 that one wondered if this limit was adhered to. This is a large sum of money to pay - particularly as even a 6 month stay in hospital only cost R2 at the time. Such a service must be extremely costly to maintain and unnecessary trips must be avoided. It is not obvious how the charge could be reduced without the service becoming exploited. A resident sister in the area with a telephone would be able to screen calls and avoid unnecessary trips - but as there are neither such sisters nor telephones, one can only rely on financial restraint. More regular bus services would greatly reduce the need for ambulances, particularly if arrangements could be made for the comfortable accommodation of the ill. More telephones would likewise ease the situation.

Although private cars charge between R30 and R60 for a special trip to hospital those who are 12 km and more from the telephones do make use
of private cars. A number of people living in these areas stated how impossible life had been before the store owners moved into the area, made the roads and kept a vehicle in the area.

The very high costs of transport involved in medical attention lead many families to send someone who is ill to stay with a migrant member of the family in Durban so that they can receive attention there. One family interviewed had had to make two trips to Eshowe in the previous two days. Transport costs clearly can be crippling.

Even where a person is not critically ill and can make use of public transport he still faces the difficulty of getting to the main road.

The area is not an easy one in which to supply roads - indeed it would be well nigh impossible to do so in some areas. There could however, be more roads than there are at present and better designed roads would reduce maintenance costs. 63% of respondents considered the roads inadequate although they were appreciative of the problems involved. Basically they wanted roads closer to their homes.

Only 16% of respondents considered the government responsible for the provision of roads in the area. Most looked upon road building as a community responsibility mentioning specifically the chief, the indunas, the shop owners and car owners. The acceptance of this responsibility by individuals can create problems when others wish to use the road but in general it seems the only way that roads other than the main road are built and maintained. Certainly all the roads
in the area surveyed were motivated by individuals even if the community helped build them. The central store-keeper stated that since he had arrived in the area in 1978 he had received no official help with road building. In fact the KwaZulu government had told him they could not help him as his was a "tribal road." He stated that when major repairs were required he would privately hire a grader and that when maintenance work was necessary he organised work parties. He and others interviewed considered the building of more and better maintained roads to be the chief problem in the area. 70% of respondents considered the roads inadequately maintained.

7.0 COMMUNICATION

As we have seen transport links with the world outside of the area are weak. Similarly other forms of contact are limited or non-existent. There were no telephones at all in the area - and only one within 12 kms of the boundary of the area. Even the clinic, situated just outside the area did not have a telephone.

None of the shops sold any newspapers - saying that as the "people were illiterate" there was no point. Only once did we enter a home where the radio was playing. We saw a number of other radios - presumably the cost of batteries prevented the owners making more frequent use of them. The main store in the area sold only 60 PM9 batteries per month. There were no post offices in the area. Just outside the area was a shop which acted as a postal agency. Other storekeepers although not recognized as such do unofficially act as post offices.
Many people of course cannot read or write and others do not trust the postal system and these facts coupled to the difficulties of making use of the postal system lead people to use other forms of communication. In response to the question what they would do if they urgently needed money a number of respondents said they would contact the migrant member of their household and some explained how they would do this. The method they described underlines communication problems and illustrates the degree of stability and trust within the community. They stated that if they were without money they could not buy a bus or train ticket; if they were illiterate they could not write a letter; even if they were not illiterate they might not know the migrant's address or might experience difficulties posting a letter; they could not phone in the area as there were no telephones; it was seldom worth travelling to a telephone as few migrants were contactable by phone; and that therefore in these circumstances they relied on taxis - either to deliver a message or to take the woman to her migrant husband. The woman would not be able to pay the taxi but would be accepted on the understanding that the migrant would pay the taxi when she arrived. If on the other hand, a migrant received a message that money was urgently needed at home he would look around until he found a taxi from the Nkandla area and ask the driver on his next trip to the area to leave the money with someone who lived near the road through the area in which his wife lived. On receiving this money the person living close to the road would send a message with a passing scholar or shopper to the migrant's wife and the woman would subsequently collect the money. It appears that all taxi drivers are prepared to co-operate in this procedure and no one reported that money had ever gone astray.
There was one large store and a couple of very small shops in the area surveyed. Three significant shops were situated within 15 kms of the boundaries. The range of goods offered at the stores is not nearly as comprehensive as the range of services offered by the storekeepers (See page 32). They stock only basic foodstuffs and a very limited range of soft goods. People find the need to go shopping in Eshowe or Nkandla from time to time and are well aware that the prices and range of goods offered are better in those centres.

Transport is the single most limiting factor for the storekeepers - physical difficulties are encountered and the costs are high. The shops stock no newspapers, no fertilizer and almost no seed. They have no electricity and stock no meat or dairy produce. They stock very little in the way of fresh produce. None of the stores in the area stock any hard liquor but they do sell sorghum beer either by the carton or "loose". Shoppers are discerning and the shop which was best stocked and had the lowest prices had a turnover many times that of the other stores despite the fact that shopping there meant some patrons had to travel longer distances than they would to the other shops. The fact that it offered credit to a larger number of people than the other stores did is no doubt another reason for the higher turnover.

The continuous shift from total reliance on subsistence farming to reliance on modern foodstuffs purchased with migrants' remittances and
pension money is well illustrated by increasing bread sales. Those stores lucky enough to be on a bus route can get fresh bread daily or at least a couple of times a week. Those off the bus route have of course to collect their bread themselves. One store on the bus route sold 450 dozen loaves of bread a month. This figure should be seen against total monthly mielie meal sales of 9 000kg or 112.5 80kg bags. However, those stores off the bus route would have sold significantly more maize and less bread.

9.0 SAVING AND CREDIT FACILITIES

There appeared to be no saving clubs, credit unions, etc. in the area. A storekeeper stated that there was a need for some sort of saving facility although it would not in his opinion be frequently used. He considered that even those who saved did not put all of their money into, for example, the Post Office, but always kept some ready cash in the home.

The only credit available was for goods, not money and Table 25 below indicates the percentage of households with credit facilities. An interesting unsolicited opinion expressed in answer to a question regarding the household's credit facilities was that only pensioners could get credit and the figures in the table do indeed indicate that more households with pensioners have credit facilities than households without pensioners. Storekeepers confirmed that they were more inclined to give credit to pensioners. The community appeared to accept that if one was neither a pensioner nor employed one would be unlikely to be granted credit. Certain stores seemed more prepared
than others to grant credit and all reported increased levels of debt during the drought. At the central store the total debt which was usually R4 000 had risen to R6 500 and debtors were repaying their debts more slowly than usual.

**TABLE 25**

**CREDIT AVAILABILITY**

<table>
<thead>
<tr>
<th>Households</th>
<th>No Credit</th>
<th>Credit</th>
<th>Could have credit but don't</th>
<th>Only pensioners can get credit</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Households N=61</td>
<td>36%</td>
<td>38%</td>
<td>5%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>Households with Pensioners N=28</td>
<td>21%</td>
<td>54%</td>
<td>11%</td>
<td>-</td>
<td>14%</td>
</tr>
<tr>
<td>Households without Pensioners N=33</td>
<td>49%</td>
<td>33%</td>
<td>6%</td>
<td>3%</td>
<td>9%</td>
</tr>
</tbody>
</table>

In view of the fact that savings were almost non-existent and credit restricted, we asked people what they did in emergencies - when they ran out of food or money. The answers were indicative of the homogeneity and human stability in the area. 67% of respondents reported that when in need they would borrow food from their neighbours or relatives and 48% that they would borrow money from them. 4% said they had never been without money when they needed it.
and 13% that they had never been entirely without food. 13% said they would contact the migrant member of their family for money and 4% for food. 24% said they would ask for credit for food (none however for money) and 6% stated that they would sell something such as a chicken.

The fact that being without food was a serious and real problem is indicated by the answers given by respondents when they were asked what the most serious problem they faced was - 18% answered starvation. This was the problem mentioned by most respondents (agricultural, medical and educational problems were the next most frequently mentioned, being mentioned by 12% of respondents).
APPENDIX A

PROBLEMS AND DIFFICULTIES

On the completion of the questionnaire the fieldworker referred to the fact that a number of factors causing difficulties in the respondents' life had been raised. The respondent was then asked, if he were in the position to improve his life or do away with some difficulty in his life, what that would be. He was told his answer need not necessarily refer to a difficulty that had already been mentioned. The question was open ended and the responses very varied. Table 26 below is a very rough attempt to categorize the responses according to the field of the difficulty referred to.

TABLE 26

DIFFICULTIES

<table>
<thead>
<tr>
<th>Field of Difficulty</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starvation</td>
<td>17.9</td>
</tr>
<tr>
<td>Education</td>
<td>11.9</td>
</tr>
<tr>
<td>Health</td>
<td>11.9</td>
</tr>
<tr>
<td>Agriculture</td>
<td>11.9</td>
</tr>
<tr>
<td>Employment opportunities</td>
<td>10.4</td>
</tr>
<tr>
<td>Social relationships</td>
<td>9.0</td>
</tr>
<tr>
<td>Inadequate home</td>
<td>9.0</td>
</tr>
<tr>
<td>Lack of capital/ money</td>
<td>6.0</td>
</tr>
<tr>
<td>Roads/Transportation</td>
<td>4.5</td>
</tr>
<tr>
<td>Absence of cattle</td>
<td>3.0</td>
</tr>
<tr>
<td>None</td>
<td>4.5</td>
</tr>
</tbody>
</table>
INDICATIONS OF AN UNDERCOUNT IN THE 1980 NATIONAL POPULATION CENSUS

A number of statistically surprising answers were obtained when relating data obtained from the survey and from the KwaZulu Departments of Education and Culture, Health and Welfare and Agriculture and Forestry to figures obtained from the National Population Census of 1980. The answers may be surprising but correct but, if not, either the survey data and the information from the various government departments is incorrect or the National Census is inaccurate. There are a number of reasons why it seems most likely that the Population Census represents an undercount of the actual population.

All the surprising answers could be simultaneously explained if there was a population undercount. They are all surprising for the same reason - viz. that the total population seems unexpectedly small when related to numbers of pensioners, scholars, cattle owners etc. If, on the other hand, the population count is accurate the surprising answers could only be proved incorrect by showing the data from all the government departments concerned and the survey to be wrong. This is less likely to be the case for a number of reasons and, even if it were, why would all the bodies concerned have overcounted rather than merely miscounted?

1. Although the Census was conducted in 1980 and some of the figures from other sources relate to 1981/82 the discrepancies are too large to be explained by population growth alone.
There is no obvious reason why one should doubt the figures obtained from the various government departments. The methods of recording, for example, the number of children at a particular school, the number of cattle at a particular dip or the number of persons receiving pensions from a particular pay point appear acceptable and produced figures which related satisfactorily to those found in the survey and to actual conditions in the area.

The topography of the area is such that the task of the most conscientious Census enumerator would be exceedingly difficult. The population is scattered and unordered. There are few roads in the area. Long range visibility is very poor and whole valleys are obscured from the general view. Even with aerial photographs the survey fieldworkers frequently encountered difficulties locating a homestead and it is easy to imagine whole areas remaining unenumerated. The gradient is very steep throughout the area and homesteads are generally placed on hilltops. To get from one homestead to the next often means climbing down one steep hill, crossing a stream and climbing up another equally steep hill. It is not difficult to see why an undercount should have occurred in this area nor why if there was said to be a nationwide undercount it should be worse here in this remote and hilly area with its scattered population than in an urban area where the population relatively ordered.

Four examples illustrate the reasons for suspecting a Census undercount in 1980 in the magisterial district of Nkandla.
According to the Census the population of the Nkandla Magisterial District was 99,380. According to the survey the average size of households in the area was 9.1 excluding migrants. On this basis we may say there were 10,920 households in the district in 1980.

Figures from the Department of Agriculture and Forestry show the cattle population of the Nkandla district to have been 97,225 in March 1980. We know the national average herd size was 8.5 in 1982. Prior to the 1980 drought, herds were probably somewhat larger so that if we presume the average herd to have consisted of 10 head we may say there were 9,722 herds. Relating the number of herds to the number of households gives an answer indicating that 89% of the households had cattle. It is extremely unlikely that such a high percentage of households would have held cattle. As the cattle figures are apparently accurate, it must be asked whether there were in fact not more than 10,920 households in the district.

The Department of Education and Culture's records in the office of the Circuit Inspector show that there were 28,349 children at school in Nkandla in 1982. This represents 28.81% of the total population of the district. In the area surveyed 15.3% of the population, excluding migrants, were at school. Of the entire population of KwaZulu 24.7% were at school in 1980. If the figures are accurate the area surveyed is extremely backward educationally and the Magisterial District of Nkandla has a larger percentage of its population at school than does KwaZulu as a whole. We stated in the section on Education that there was no reason why this area should be so educationally backward and that indeed when one compared the
educational levels of the 5 - 24 age group of those surveyed with
that for the whole of KwaZulu, there is a remarkable similarity which
suggests that in fact educational levels are not significantly worse
in the survey area than elsewhere. If however, there was an
undercount in the 1980 Census use of the Census figures would result
in showing a higher percentage of the population to be at school both
in Nkandla and in KwaZulu as a whole than was in fact the case. The
figures for children currently at school we have said do not appear to
be suspect. A Census undercount would also explain why Nkandla has a
higher percentage of its population at school than does the whole of
KwaZulu as an undercount is likely to be significantly worse in rural
areas than in urban areas. It is most unlikely that a greater
percentage of the population would be at school in Nkandla than in all
of KwaZulu as the latter includes all the urban areas such as KwaMashu
and Umlazi where significantly higher percentages are known to be at
school.

Further surprising figures emerge when one relates pensioners to the
pensionable age group as recorded in the Census. In the survey area
7.32% of the population was of pensionable age and 5% were in fact
receiving pensions. According to the Census 7 600 people (7.64% of
the district's population) were of pensionable age but according to
the Department of Health and Welfare 8 147 or 8% were receiving
pensions. Everywhere there are significant numbers of persons of
pensionable age who are not yet in receipt of pensions so that it
would appear that more than 8 147 people must be of pensionable age

1. See Table 23.
whereas only 7,600 were recorded in the Census. If the percentage of pensionable persons in the total population is the same as that in the survey there should in fact be 8,327, not 7,600, persons in this age group.

According to the Census the population density in the wards in which the survey area fell was 62 people per square km. In the survey area, 35 square miles, there were 480 homesteads. The average homestead surveyed had 9.1 members and on this basis the population density in the survey area was 125 per square km. As the area surveyed was closer to the main road, shops, and junior secondary school than much of the balance of the three wards it is probable the population is denser there than elsewhere but this is unlikely to account for all of the discrepancies in density figures.
ESTIMATING INCOME

On a number of occasions it was necessary to make an estimation in order to put a monetary value on a particular source of income. The bases for such estimations are generally given in the relevant section. Thus the method of estimating income from the following sources can be found on the pages listed below.

- agricultural income page 86
- garden income page 88
- income from cattle - milk page 90
- dead animals page 97
- slaughtered animals page 97

In order to establish total income we added to cash income a cash value for agricultural produce, for garden produce, for milk, for meat taken from dead animals and for meat taken from slaughtered animals.

We did not attempt to place a value on housing. There are almost no brick or block houses in the area, nor any with corrugated iron or asbestos roofs. The houses were made of wattle and daub, stones and thatch. It was considered too difficult to estimate the cost and durability of these dwellings. All the materials required for house building are available in the area. Timber and thatching grass grow in adequate quantities. Where the area is very stony, people tend to make use of stones in the construction of their houses.

On order to establish income per capita the total sum obtained in this way was divided amongst the residents of a particular household - migrants were not included among the members of the household for the purpose of establishing incomes per capita.
BIBLIOGRAPHY


These papers constitute the preliminary findings of the Second Carnegie Inquiry into Poverty and Development in Southern Africa, and were prepared for presentation at a Conference at the University of Cape Town from 13-19 April, 1984.

The Second Carnegie Inquiry into Poverty and Development in Southern Africa was launched in April 1982, and is scheduled to run until June 1985.

Quoting (in context) from these preliminary papers with due acknowledgement is of course allowed, but for permission to reprint any material, or for further information about the Inquiry, please write to:

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