Basic Needs in Rural Areas: A Report on a Seminar held in Cape Town on 19 February 1985

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ABSTRACT

The Seminar on Basic Needs in Rural Areas was organized to provide an opportunity for interaction between researchers and decision-makers. Various aspects of basic needs in rural areas were covered. Papers delivered on the following topics are included in the report: the relevance of the basic needs approach to the South African situation; constraints and remedial policies regarding food production in the homelands; water sewerage and fuel as basic needs; rural employment and solutions to unemployment; health as a basic need; rural blacks' perceptions of basic need fulfilment; and difficulties and constraints in formulating policy and implementing programmes to answer basic needs questions.

SAMEVATTING

Die Seminaar oor Basiese Behoeftes in Landelike Gebiede is gehou om 'n geleentheid te verskaf vir interaksie tussen navorsers en besluitnemers. Verskeie aspekte van basiese behoeftes in landelike gebiede is gedek. Referate wat oor die volgende onderwerpe gelewer is verskyn in die verslag: die toepaslikheid van die basiese behoefte-benadering op die Suid-Afrikaanse situasie; beperkinge en herstelbeleid met betrekking tot voedselproduksie in die tuislande; water, riolering en brandstof as basiese behoeftes; werkverskaffing in landelike gebiede en oplossings vir werkloosheid; gesondheid as 'n basiese behoefte; landelike swartes se persepsie van die vervulling van basiese behoeftes; en probleme en beperkinge ten opsigte van beleidformulering en die implementering van programme om basiese behoefte-vraagstukke te beantwoord.

PREFACE

Development in South Africa is resulting in an increasing technological and socio-economic complexity, and hence in an ever growing need for scientific knowledge and skills. The magnitude of this challenge, the limited numbers of scientists available and the limited means at their disposal make the closest possible collaboration within the scientific community essential. Various national programmes administered by the CSIR's Foundation for Research Development (FRD) offer mechanisms and means for such collaboration between organizations and between individual scientists in areas of national importance. These programmes cover the fields of environmental sciences, energy research, materials, ocean and earth sciences, weather and climatological reseach, remote sensing and micro-electronics.

The Programme for Human Needs, Resources and the Environment (HNRE) was established in 1972 within the National Programme for Environmental Sciences to provide an opportunity for research on the interactions between the natural and human sciences as they affect man's relation with his environment.* Various disciplines are represented, in particular ecology, anthropology, botany, sociology, economics, applied mathematics, psychology and education.

The achievement of balanced development and the satisfaction of human needs is a very urgent problem facing decision-makers today. The achievement of this balance can only result from policies which recognize the interdependence of socio-political, economic and ecological factors.

During the last five years, the main focus of the Programme for Human Needs, Resources and the Environment has been on basic needs studies. Two other areas which received attention were quality of life studies and studies on human ecology and development. Most of the basic needs studies were undertaken in rural areas, as it is specifically there that the most severe problem exists.

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*The administration of the Programme for Human Needs, Resources and the Environment was transferred to the Human Sciences Research Council on 1 April 1985.

The Seminar on Basic Needs in Rural Areas was organized to provide an opportunity for interaction between researchers and planners. It was hoped that the dynamic interaction which has developed between researchers in the various disciplines could be further developed with those faced with the task of implementing the results from such research into national policies.

All the participants in the seminar, and specifically those who presented papers, are sincerely thanked for their contribution. A special word of appreciation is also due to Mrs E Auret of Ecosystem Programmes, FRD, who undertook the onerous task of editing the papers for publication.

J G GARBERS
CHAIRMAN: PROGRAMME FOR HUMAN NEEDS, RESOURCES AND THE ENVIRONMENT

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1. INTRODUCTION: THE RELEVANCE OF THE BASIC NEEDS APPROACH TO THE SOUTH AFRICAN SITUATION

P J du P le Roux

In the first section of this paper the concept of basic needs is put into its historical perspective and attention is drawn to the different types of response to this new awareness of the plight of the really poor. In the second section consideration is given to the question whether this concept is of relevance to the South African situation. In the final section possible points of dispute regarding the implementation of a basic needs policy are highlighted.

AN OVERVIEW

In a short paper of this nature it is not possible to give anything more than a very general overview of the concept of basic needs. The debates around this concept cannot be considered in any depth. At best one can hope to gain some general awareness of what the concept entails and why it is of a controversial nature.

History of basic needs[1]

During the fifties and the early sixties the major concern of all theories of economic development was simply to stimulate the economic development of the Third World countries. It was assumed that economic growth per se would eliminate the dire poverty to be observed in these countries. During the sixties and the early seventies this approach was somewhat modified to argue for redistribution of growth and for the need to pay particular attention to the employment creation potential of new projects, but the thrust of the argument remained that a high rate of growth of the gross national product was the key to the elimination of poverty.

Today the evidence seems to be pretty clear that rapid increases in per capita income has little or no positive impact on the living conditions of the poor.

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[1] See Ligthelm, 1981: 307-311, for a far more detailed discussion of the historical background.

> 'Even in countries where average incomes have risen, the standard of living of the poorest group has fallen. ... In the rural areas the proportion of the population below the "poverty line" either has been rising (as in the Philippines) or has remained roughly constant (as in Pakistan). Even in regions which have enjoyed exceptionally rapid growth ... there has been no perceptible decline in the incidence of rural poverty.' (Griffin, 1981: 222).[2]

There have been at least three types of response to the failure of conventional policies to bring about any real change in poverty in the Third World. Firstly conservative economists, for example Peter Bauer, who all along contended that the attempts to stimulate development 'artificially' through institutions such as the World Bank was doomed, saw this failure as vindication of their position that planners should not interfere in the problems of the Third World countries.

Radical economists in their turn claimed that this validated their argument that meaningful development could not take place as long as the dependency relationship between the First and the Third World remains intact. Only when the poorer classes themselves succeed in taking charge of development efforts, they contend, would their situation improve significantly, for only then would it be possible to rapidly redistribute resources.

The third response was to argue that the attempts to improve the situation of the poorest countries failed because they were misdirected. The basic needs approach is then defended either because it is seen as one which combines all the positive insights of the past 25 years into an effective overall strategy, or because it is seen to be a fairly radical departure from conventional development economic policies. (Streeten, 1981: 32-33).

The attempt to rescue development economics by the introduction of the concept of basic needs, has similarly met with three types of responses, which are succinctly summarized by Ul Haq.

> 'To some, it conjures up the image of a move toward socialism, and whispered references are made to the experience of China and Cuba. To others, it represents a capitalist conspiracy to deny industrialization and modernization to the developing countries and thereby to keep them dependent upon the developed world. To still others, it is a pragmatic response to the urgent problem of poverty in their midst.' (Ul Haq, 1980: 135).

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[2] In 1975 Irma Adelman argued even more strongly that:

> 'the primary impact of economic development ... is, on the average, to decrease both the absolute and the relative income of the poor. Not only is there no automatic trickle-down of the benefits of development, on the contrary, the development process leads typically to a trickle-up in favour of the middle-class and rich.' (Keeton, 1984: 278).

Given these types of controversies about the basic needs approach, the question arises whether there is any chance at all that it could receive some broad based support in the South African context. Before we can turn to this question, we however need to consider in more detail what the concept 'basic needs' connotes.

What is 'basic needs' all about?

In his book 'First things first' Streeten puts forward the following description of the basic needs approach.

> (It) 'attempts to provide the opportunities for the full physical, mental, and social development of the human personality and then derives the ways of achieving this objective. Within a short time, say one generation, it tries to ensure access to particular resources (such as caloric adequacy) for particular groups ... that are deficient in these resources...
>
> In addition to the concrete specification of human needs... the basic needs approach encompasses nonmaterial needs... Non-material needs are important not only because they are valued in their own right, but also because they are important conditions for meeting material needs. They include the needs for self-determination, self-reliance, and security, for the participation of workers and citizens in the decision-making that affects them, for national and cultural identity, and for a sense of purpose in life and work.' (Streeten, 1981: 34).

Although the provision of the material and non-material basic needs may at times be complementary, Streeten cites China as an instance where these objectives came into conflict.[3]

Although Streeten himself was at the World Bank, this wider description of basic needs, with its stress on human rights as part of a basic needs approach, is today associated with the International Labour Organization. World Bank definitions of basic needs are generally far narrower. Thus Burki and Ul Haq concludes:

> 'Although the content of the bundle of goods and services that satisfy basic needs varies from one country to another, there is a common core that includes nutrition, education, health, water, and sanitation and shelter.' (Burki, 1981: 170).

In recent years shelter and education have been the subjects of many a South African investigation. At this seminar the other topics Burki mentions will be considered from a basic needs perspective. It is important to stress, though, that the basic needs concept ought to embrace more than these rather technocratic concerns.

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[3] Streeten, 1981: 34-35. Also see Streeten, 1984.

THE APPROPRIATENESS OF THE 'BASIC NEEDS' CONCEPT FOR SOUTH AFRICA

When considering the contention that a basic needs approach is indeed appropriate to South African circumstances, we need to evaluate both some general arguments and some more specific issues which are of particular relevance to the South African case.

The relatively high estimated rate of growth of income in the homelands

Recently Charles Simkins (1984) made estimates which seemed to indicate that there was a very rapid rate of increase indeed in the income of black households in the homelands. During the period between 1960 and 1980 the households above the 30th percentile experienced just over a doubling of their per capita incomes. Most of this improvement took place between 1970 and 1980. Even the households who find themselves between the 15th and the 30th percentile have experienced an improvement in absolute terms since 1960. Only in the case of those under the 15th percentile was there in fact an absolute decrease in standards of living. During the same period the percentage of the population who found themselves above the minimum living level increased from one to 19. (Simkins, 1984: 150-151).

It could be argued that, given this extraordinary rapid increase in living standards, there is no need for basic needs policies to be adopted. The right approach would be, some may argue, to simply go for growth. Eventually prosperity is bound to trickle down to the lowest income groups too.

This approach might have had some merit if it was likely that the economic performance of the decade before 1980 would be repeated in the years ahead. However, this extraordinarily high rate of growth in standards of living was the consequence of a number of non-repeatable factors. For example, the very substantial increase in wages migratory labourers experienced in the wake of the gold price increases of the early 70's are unlikely to be a feature of the next decade and a half, when slow rates of growth seem to be inevitable. Furthermore this high rate of growth is to some extent misleading, for it was partly the consequence of a political decision to include certain black commuters with relatively high standards of living into the homelands.

What is interesting is that, in spite of the exceptionally high rates of growth observed, Simkins also finds that the circumstances of the bottom 15 per cent, had deteriorated further. This percentage is somewhat lower than the 20 to 30 per cent which in most other Third World countries seem to find themselves in a poverty trap. Thus according to Simkins's estimates many millions find themselves in a poverty trap - certainly a large enough number to justify special attention. What is more, I would wish to argue that given the simulation model used by Simkins, it is likely that the real percentage for whom things have changed for the worse may also in the South African case be somewhere between 20 and 30 per cent.[4]

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[4] Crucial to the evaluation of Simkins estimates are two questions. Firstly, how sensitive are the estimates of income distribution for stochastic variations. After all, we are working with a synthetic sample population. Secondly the question arises of how sensitive the estimates are for the various assumptions made with regard to value of variables which are not readily available.

It further needs to be kept in mind that the rapid increases in standards of living took place from a very low base. Even by 1980 as many as 80 per cent of all families found themselves under the minimum living level. Thus abject poverty is not a phenomenon limited to the bottom 20 to 30 per cent. It is the pervasive condition. Four fifths of all households cannot take care of the basic needs of the children in those households.

Simkins's figures, even if one takes them as they stand, thus confirms that there is a very strong case indeed for an approach which puts a high premium on the basic needs of the rural population.

Trade-off between growth and basic needs provision

At times the basic needs approach is criticized by contending that it is in the longer run far more important to ensure an adequate rate of growth than to provide in basic needs. The underlying assumption is that the additional tax burden imposed in order to provide in basic needs is harmful for economic growth.

This position has been undermined by the results of a number of studies conducted by the World Bank which seem to indicate that:

> 'In the long run, better education, nutrition and health for the population are demonstrated to have a beneficial effect in reducing fertility, enhancing the capacity of the individual for change, and creating a political environment conducive to stable development. An interesting conclusion of these studies is that the more pressing basic needs can be met even at fairly low levels of per capita income without sacrificing growth. .. An overall conclusion appears to be that if objectives in income distribution and meeting basic needs are pursued rationally, economic growth need not necessarily be sacrificed.' (Burki, 1981: 168).

Both of these questions can only be answered by simulation runs. There is no statistical theory which will enable us to predict a priori the accuracy of the estimates made, and the effect of changing the assumptions can only be measured by a number of simulation runs.

Given the assumptions of the existing model there are, however, two reasons to suspect that black income will be more unequally distributed than estimated by the model. Firstly, the probabilities that someone in a specific household will have a particular income, a certain number of children, etc, are estimated on the basis of random variables drawn independently. In reality there is likely to be a vicious circle. Those who fare badly with regard to one variable, are likely to also fare badly with regard to another, and to be members of a household where others also do not do too well. The reverse is, of course, also true. Furthermore, since use is made of averages rather than the actual distributions of income, outliers will be ignored and inequality will be further underestimated. If inequalities should over time be getting worse, the preceding characteristics of the model are likely to lead to an underestimation of the increases in inequality and thus to overestimation of the increases in the income of the lower income groups.

In a theoretically oriented article Quibria (1982) attempted to provide proof that basic needs provision would lead to higher savings rates and higher rates of growth.

From the preceding it does not follow that the meeting of basic needs inevitably will lead to a more rapid rate of growth. As Streeten (1984: 14) warns: '... a pure basic needs approach may conflict with a productivity and growth approach, although the two approaches overlap in some areas.' For there are many basic needs which ought to be met on the basis of arguments of compassion and humanity, but which do not necessarily have any beneficial impact on productivity whatsoever. The success reported by the World Bank is to be ascribed to the fact that it selected basic needs packages which also had a positive impact on economic growth.

From an economic growth point of view a basic needs approach can have a positive or a negative impact, depending on what it in fact entails. It is thus not sufficient to speak of a basic needs approach. If economic growth is an objective the specific package of basic needs policies one adopts is of crucial importance.

However, given the fact that unemployment is clearly a structural problem of the South African economy, it would appear to me that in the case of our country it is important to select a basic needs package which also maximizes the growth in employment opportunities. Indeed, whereas employment is often considered to be a separate goal, it is for the purpose of this seminar included as a basic need.

Political implications

The successful implementation of basic needs policies are bound to have political implications. What are these likely to be?

There is no doubt that the impoverishment of the poorest classes could lead to political instability. Thus Griffen argued in his Presidential Address to the Development Studies Association that:

> 'The increasing international inequality and national poverty, despite unprecedented growth rates, has led to frustration and bitterness in the poorest of the underdeveloped countries and among the poorest classes in almost all underdeveloped countries. This, in turn, is virtually certain to result in national political upheavals throughout the Third World and possibly to greater international discord.' (Griffen, 1980: 223).

Without doubt the conditions in rural areas in Rhodesia pushed many poor into the guerilla armies. It is thus possible that the transition to a socialist Zimbabwe would have been delayed had the Smith regime been more successful in providing basic needs in these areas.

It is thus not surprising that some favour basic needs policies because they are believed to lead to greater political stability. For the same reason some radicals oppose them as policies of appeasement which are adopted to prevent any real change from taking place.

However, the situation is not at all unambiguous, for once a people's basic needs are met, they are not only likely to be more aware of the lack of political freedom than they were when they found themselves in dire poverty, but they are also more capable of organizing themselves in order to rectify unjust situations.

It appears to me that one has to agree with the perceptive Paul Streeten (1984: 9) that: 'It is not at all clear whether the basic needs approach mobilizes the power of the poor to improve radically their situation or whether it reinforces the existing oppressive order.'

Although it is inevitable that basic needs policies are likely to have political consequences, the nature of these cannot be predicted in advance. Dogmatic Marxists who believe that immiserisation is a precondition for radical change, and arch conservatives who fear the consequences of a more enlightened underclass, are likely to be united in their opposition to basic needs policies. In between these two extreme positions there is a whole spectrum of social scientists, varying from relatively conservative economists to fairly radical sociologists, who may all support basic needs policies inter alia because they cannot predict the eventual political impact.

Had there been certainty that these policies would favour political conservatism, clearly those to the left of the spectrum would have rejected them out of hand. On the other hand, had it been established that basic need policies create revolutionary circumstances, conservatives would have rejected them. A fair degree of consensus on the principle is possible precisely because of our ignorance.

Moral considerations

There are strong moral arguments in favour of a basic need approach. Conservatives who dislike welfare policies which support those unwilling to work, are more likely to be in favour of policies which help children to acquire the basic skill for survival. Similarly most radicals feel a strong empathy to the two groups, women and children, most likely to benefit from these policies. It is probably because of its relatively wide moral appeal that this approach has gained as wide a currency as it has.

Obviously some conservatives will continue to argue that it is paternalistic to give the poor a package of goods rather than the free choice direct monetary transfers permit (ignoring, as they always do, that this free choice is usually exercised by the male head of household and not by the females and children in dire need of support). And there are structuralists who would contend that it is the long-term outcome which is in the end of far greater moral relevance than the short-term suffering of the people.

Generally there is, however, no doubt that a very large spectrum of people do accept that there are strong moral arguments for some type of basic needs policies. Hence, if these policies should be carefully implemented, they could receive very broadly based support indeed.

THE IMPLEMENTATION OF A BASIC NEEDS APPROACH IN SOUTH AFRICA

Although, as I have argued above, there is likely to be a broad consensus on the desirability of a basic needs approach, it is to be expected that there will be quite strong disagreement on what this approach will imply in practice. Firstly, the question will arise what needs are indeed to be considered basic. Secondly one has to decide what institutions are to be responsible for the implementation of the basic needs approach.

The World Bank or International Labour Organization approach

Whereas conservatives would wish to stress a number of material needs such as those Burki referred to above, others would wish to stress the nonmaterial needs, eg the right to self-determination which Streeten stressed. But although there are bound to be differences on the scope of the concept 'basic needs', it may at least be possible to agree on what package of material basic needs would be optimal given a specific objective, such as a high rate of growth in employment opportunities for unskilled workers.

Determining the package of basic needs to be delivered

There are two distinct methods by which one can attempt to determine the optimal package of basic needs. The one could be called the technocratic approach, and the other the democratic approach.

The technocratic approach would depart from a specific objective and then on the basis of an empirical investigation of the linkages between the various types of basic needs, attempts will be made to arrive at an optimal package.

Alternatively one can attempt to determine democratically what combination of needs are preferred by the poor themselves. In the absence of a truly representative political system, refuge may have to be taken in some type of survey approach, such as that to be discussed by Dr Møller. We would not forget, though, that this type of 'happiness' measurement was first foreseen by Huxley in his 'Brave New World'.

In the end some combination of the two approaches is probably needed. The technocrats should attempt to give an honest indication of the costs and benefits of various packages, and the electorate should make their democratic choice. Even in countries with well-established democracies and an abundance of technocrats, it is very difficult to successfully establish such a system. Nevertheless, this type of system, I would contend, is the one which should ideally be established.

Although one may feel strongly about the type of system one would like to have implemented at some date in future, the system which is at the outset adopted will be of crucial importance in determining how broad the support for the basic need programme will be.

If Community Councils and homeland governments are to have the final say, one will find that a large number of technocrats who could potentially make a most useful contribution to evaluating the different types of packages would be most reluctant to participate and any community organizations will also oppose such a programme. It is of the greatest importance that the initial channel should not be politically controversial.

It could possibly be argued that if the Regional Development Councils should get the primary role in making this type of decision, a very real danger exists that these councils would not reflect on the true interests of the poor. After all, they strongly represent business interests, and the poor are pretty voiceless. There is always the danger that these councils may also face strong political opposition.

In the absence of any general acceptable political institutions on a local level, it would seem to me as though the basic needs approach is likely to get by far the widest support should it in the final instance be channelled through a technocratic institution such as the Development Bank.

It could be argued that this implies a far too great a concentration of power in the hands of a number of technocrats, and this is indeed true. Nevertheless I would argue that under present circumstances this is to be preferred to the possible alternatives.

The Regional Development Councils are not likely to put the interests of the poor first. Streeten's (1984: 6) rhetorical question has clear implications also for the South African situation: 'If we are concerned with meeting the basic needs of the blacks in Mississippi would we delegate more power to the state government or keep firm central control?'

And Griffen (1980: 225) makes a statement on which those who wish to contend that the Community Councils or homeland governments should have the final say, ought to ponder: 'It is conceivable, even likely in many countries, that power at the local level is more concentrated, more elitist and applied more ruthlessly against the poor than at the centre. Thus greater decentralization does not necesarily imply greater democracy let alone "power to the people". It all depends on the circumstances under which decentralization occurs.'

If basic needs policies are to be implemented effectively in the South African context, there is a need for as large an input as possible by academics and other technocrats. Simultaneously it is also important that the voices of the powerless in the community ought to be heard. It would be a pity if a delivery system is chosen which a priori excludes a large percentage of those potentially sympathetic to such a new approach.

REFERENCES

Burki S J and Ul Haq M 1981. Meeting basic needs: an overview. World Development 9(2), 167-182.

Griffen K 1980. Economic development in a changing world. World Development 9(3), 1981, 221-226. Presidential address to the Development Studies Association Annual Conference, Swansea, 15-17 September 1980.

Keeton G R 1984. The basic needs approach: a missing ingredient in development theory? Development Southern Africa 1(3 and 4), 276-293.

Ligthelm A A 1981. 'n Perspektief op die basiese behoefte-benadering (basic needs) tot ontwikkeling. Development Studies Southern Africa 3(3), 307-329.

Quibria M G 1982. An analytical defense of basic needs: the optimal-savings perspective. World Development 10(4), 285-291.

Simkins C 1984. What has been happening to income distribution and poverty in the homelands? Development Southern Africa 1(2), 142-152.

Streeten P et al 1981. First things first - meeting basic human needs in developing countries. Oxford University Press.

Streeten P 1984. Basic needs, some unsettled questions. Paper No 8 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Ul Haq M 1980. An international perspective on basic needs. Finance and Development, as reprinted in Development Studies Southern Africa 4(1), 135-141, 1981.

2. FOOD PRODUCTION IN THE HOMELANDS: CONSTRAINTS AND REMEDIAL POLICIES

G Lenta

INTRODUCTION

The drought of the early 1980's has brought into sharp focus the parlous state of agriculture in the African 'homelands' of South Africa. However, it is not only during droughts that food production in many parts of these homelands falls short of the food requirements of the inhabitants, and today's concern with food shortages in these areas is not something new. Since the 1920's there has been a considerable volume of writing devoted to identifying the causes of the economic decline in general (and of deteriorating food production in particular) of what were once self-contained, subsistence communities. The aims of this paper are to examine the factors constraining food production and then briefly to discuss remedial policies.

Factors which are seen today to be responsible for the unsatisfactory levels of food production in the homelands can be discussed under two broad categories: the 'proximate' or farm level factors which depend upon the decisions and performance of individual farm operators, and the 'conditioning' factors which are determined by government measures and other outside influences that affect the nature of the production possibilities available to farmers.

PROXIMATE OR FARM LEVEL FACTORS

Four factors may be distinguished under this heading:

1. Availability and use of land

It is well known that the allocation of land to the homelands is determined largely by the Native Trust and Land Act of 1936. It is conceded by many that the allocation is inadequate to sustain the area's population as conditions have changed drastically since the 1930's. Population has increased rapidly over the intervening years and the extension of influx control in the early 1950's has reduced the rate of emigration from the homelands which has further exacerbated the situation and resulted in tremendous overcrowding. It is the inadequacy of land which has produced plots too small for full-time farming to be able to compete with wage employment, and which therefore deprives the land of able-bodied males.

Given the system of land tenure, it is the inadequacy of land which results in the use of arable land for grazing, and which makes draught animals too weak for ploughing. Change in tenurial arrangements is itself made difficult by land shortage.

It is also contended, however, that at fault is not the quantity of land but the intensity with which land is used. Predictions of productive capacity are made from time to time; it is claimed by some that in view of the low productivity that prevails in homeland farming at present, the regions are capable, given an adequate input of capital and skills, of producing sufficient food to support a much greater population than resides there. Fairly recently, however, the Buthelezi Commission estimated that in the case of KwaZulu, even if existing productivity levels were to be increased by 450 to 500 per cent (implying annual real growth rates in output of 10 per cent for the next 15 years), agriculture would only generate a volume of income adequate to support 1,25 million persons. Adding to this figure the number of people who would be living and working in villages and towns serving the rural areas - approximately 250 000 - more or less 1,5 million people could reside in rural KwaZulu. At present, there are 2,34 million persons. 'Thus', the Commission concludes, 'the full development of the agricultural potential of the area will employ only 66 per cent of the present population and there will have to be an outward migration of 830 000 people together with any further increase in the remaining rural population.'

It should be noted that the situation in KwaZulu is by no means representative of all homelands. These political entities, which together comprise almost 14 per cent of the land area of South Africa, contain wide variations in rainfall, soil types, natural resources, etc, and hence wide differences in agricultural potential. Before the drought of the early 1980's for example, Bophuthatswana was a grain exporter, while Venda has the potential to be self-sufficient in food.

In this discussion of availability and use of land, reference must be made to a paradoxical situation which exists in homeland agriculture and which is bound to have a detrimental effect on food production. On the one hand, many of the homelands are starved of land and, as has already been mentioned, population is well in excess of the carrying capacity of the land. On the other hand, by no means all of the land classified as arable is cultivated in any one year. In all homelands a comparatively large proportion of arable land (20 to 30 per cent) is left uncultivated every year. A survey was conducted in KwaZulu in the recent past for the purpose of explaining, as far as possible, this puzzling matter of land unused. The findings of the survey are worth summarizing briefly because they clearly indicate some of the major problems facing homeland farmers today.

Three main reasons were given for the failure to cultivate, all of which indicated a situation whereby the proportions in which supply factors are often combined are economically undesirable: households with land lack capital or labour; households possessed of capital or labour, or even both, often have insufficient or no land.

The first and by far the most important reason for undercultivation, was shortage of finance to purchase intermediate inputs, eg means of ploughing, seeds, fertilizer, etc. In this connection, many of those interviewed appeared to display a rather curious attitude towards agricultural

activities. They regarded themselves not simply as part-time cultivators but as people whose ability or willingness to cultivate depended on there being sufficient income from other sources in the family to provide some capital for farming. Lack of earnings from non-agricultural sources inhibits the acquisition of inputs, which in turn discourages cultivation. This produces a paradoxical situation in which unemployment outside agriculture, instead of stimulating the full use of land, in fact leads to land wastage since the individual lacks the income necessary for the acquisition of essential inputs.

Secondly, the physical impossibility of obtaining the means of ploughing the land. Of all householders interviewed, 22 per cent offered this as their reason for non-cultivation. Plough oxen or tractors are either seasonally unobtainable, or else it is considered that the expense of hiring them is too great. It may be thought paradoxical that cultivation may be prevented by a lack of draught animals in a land where overstocking has for generations been considered an obstacle to development, but there are several reasons why this is so. The first is that only one-half of all households own livestock, and stock-owners are not necessarily holders of arable land. Secondly, the phenomenon of overstocking acts to weaken the draught animals available and, hence, to reduce the use of beasts weakened by underfeeding, making them less adequate to the agricultural needs of their owners.

Finally, imbalances between rights of arable land and availability of labour with which to cultivate the land further contributed to wastages in arable farming. In the case of 18 per cent of households interviewed, it was reported that failure to cultivate occurred because cultivation rights belonged to individuals who were too old or infirm, or to widows without adequate labour for ploughing and weeding, who act as caretakers of land rights for their children. A further 12 per cent of representatives of households said that either the head of the family or both husband and wife had migrated to town to work, or that although still resident, they were engaged in full-time non-agricultural work.

This land/labour disequilibrium is particularly disturbing. Not only does it reveal fundamental weaknesses in the present system of land tenure, but it highlights most vividly the negative effects of migration on farming. There are, for example, a number of people in the homelands who have little or no interest in agricultural production and are merely looking to secure rent-free accommodation for their families. This behaviour pattern arises because people are either unable to secure a home in the urban area or else have extreme insecurity there and are thus reluctant to sever ties with the homeland. Until conditions of urban security exist and the urban environment is improved, there will be a demand by many rural dwellers for secure and rent-free accommodation for most or part of their families.

2. Labour supplies

It is generally believed that a vast pool of surplus labour exists in the homelands in the form of overt or disguised unemployment. However, there is evidence that, concomitant with unemployment, there exists labour-scarcity on the land, particularly at peak season. At times, unemployed migrants return to the rural areas but this does not necessarily coincide with the peak agricultural season.

The abnormal demographic composition of the average family in the homelands - a result of migration - creates a situation whereby a large number of households is headed by women. Consequently, agricultural activities must be limited by the time that a housewife, who is in all probability the only resident parent of a family of young children, is able to spend on cultivation. Water and fuel collection involve walking great distances, and this keeps part of the labour force tied up in non-agricultural activities. Most domestic chores are labour-intensive, which also reduces the labour available for agriculture. As it happens, the most labour-intensive agricultural period coincides with school examinations and so the rate of absenteeism rises.

The abnormal role played by women in farming is likely, moreover, to have the effect of retarding and distorting capital accumulation. A study on the development of rural life and poverty in the Pongolo floodplain illustrates that even educated women who had never lived in the city, offered stereotyped answers on what sort of development they would like to see and what they would do if they produced more and became rich. Of the women interviewed (in 65 homesteads), only one moved for some type of selfinvestment, ie, investment outside of consumer products. On the other hand, 99 per cent of the migrant males interviewed said that if they did have funds they would devote them to buying tractors or setting up stalls - activities that would generate further wealth. Women tended to emphasize consumption while men emphasized investment.

3. Availability of capital

It is obvious that some degree of agricultural financing is necessary for the expansion and diversification of farm output. A type of capital investment which merits special mention here and which is in very short supply in the homelands, is what one could call 'high-risk, speculative' capital, which is often associated with agricultural development projects. The point in question is illustrated by the experience of Taiwan. In that country a development corporation was formed - the Agricultural Research and Development Council - with the objective of providing financial backing to farming enterprises. The Council places money at risk, undertakes development projects, ascertains the viability of a project and then turns it over to private enterprise without itself expecting financial returns. A similar corporation should be created for the homelands: the introduction of new and risky food and cash crops cannot be left to the initiative of individual peasants.

Whilst on the subject of capital, a further point is that small-scale African producers are at a disadvantage compared to large-scale white farmers with regard to taking advantage of fertilizer subsidies, drought relief, tax and railage rebates, etc.

4. Traditional customs/conservatism/resistance to change

The question of taboos restricting food production is today regarded as relatively insignificant. There is, however, one aspect of farm management which still seems to represent adherence to past practices which impede development: livestock holding. For many decades, observers of African agriculture have been critical of the attitude of peasants towards cattle:

their apparent reluctance to maximize economic returns in a manner prevalent among white farmers contributed to their being labelled as 'irrational operators', obsessed with a 'cattle complex' that led them towards the destruction of valuable land resources and contributed, in all probability, towards a lower level of income from farming.

Today, the attitude of observers and commentators has changed somewhat; the general feeling is that homeland residents are not inherently conservative but that the options offered to them are unattractive. In fact we are a long way off devising options which represent viable choices to them and so put them in a position where they can be conservative or resistant to change.

The cattle issue is very important in this discussion on food production in the homelands. Firstly, there is a great deal of wealth locked up in the herd. There are said to be approximately 1,7 million cattle in the national KwaZulu herd which would be worth slightly more than the whole of the local sugar industry in capital values.

Secondly, from this huge stock of capital, a flow of food and income in general should materialize. Yet, in spite of the sympathetic and benevolent views of today's analysts, it must be admitted that extremely little income is derived from livestock in the homelands. To what extent this may be ascribed to customs and traditions, or to faults in the structural relations in the economy, cannot be said. The fact remains that there are instances that seem to point to survival of the old customs and practices. A good illustration of this is provided by what occurred during the 1980 drought. An effort was made to open up a number of feedlots on the basis that the pressures that the drought had put on individual cattle-owners would increase sales rather than deaths of cattle. For the area concerned, no cattle were used for draught and none were milked. The feedlot operation offered three options:

- put all the cattle over a scale and pay on weight
- take in cattle and keep them on a charge per day at a predetermined rate or
- sell individual cattle to pay for the cost of food or market direct to the butcher.

All participants opted for the second course and eventually took their cattle back, so cattle that arrived in an emaciated condition were returned in a more marketable state. The cattle owners then refused to sell any in order to pay for costs incurred, and the individual who had tended the cattle during the drought in most cases had to wait for his money, sometimes for as long as six to seven months, and also had to accept payment in instalments. The most logical option - selling either all or some cattle - was not favoured by any individual. This particular example serves as a good illustration of the reluctance on the part of rural cattle-owners to dispose of their livestock.

In general, turnover in the livestock industry in the homelands is low. In Transkei, for example, the cattle offtake figure is only five to six per cent as against 15 to 20 per cent in commercial farming. Yet, the current number of cattle in Transkei is double what it should be for long-term productivity.

Chronic malnutrition is relieved only when it rains, while factors such as starvation from birth, the failure to castrate poor quality or dip stock, etc, exacerbate the situation.

A similar situation has been found in KwaZulu. On average, between 1957-73, for every animal that was sold or slaughtered, two died of natural causes. For the same period, the rate of turnover (the number of cattle marketed or consumed as a percentage of the herd) in KwaZulu averaged five per cent per annum, which was approximately one-third of the rate on white farms. Sales remained constant at about two per cent of the cattle population, notwithstanding an active government drive to promote sales and an inflation in cattle prices during this period of seven per cent per annum.

The attitude of black farmers to cattle holding is understandable. There are tremendous advantages to be gained from possessing cattle. The institution of communal grazing produces a conflict between private and social interests. Given free communal grazing, the private incentive is to expand one's cattle irrespective of the effects on the quality of the land or on the cattle owned by others. If grazing land is scarce, certain theoretical implications can be drawn. The cattle stock is expanded until, in equilibrium, the land reaches its maximum carrying capacity: the addition of a beast cannot add to the weight of the herd as a whole, and each beast is at the minimum subsistence weight. Consequent land deterioration reduces the equilibrium size of the herd over time. Tenurial reform does not occur because it is against the interests of the chiefs and larger owners of cattle. Furthermore, even in the overstocking equilibrium, cattle ownership represents rational economic behaviour and provides the highest rate of return available. The return arises from the use of cattle as draught animals. Ploughing with a team of two oxen, as opposed to hoeing, enables a family to cultivate a much larger area; indeed, the authors claim a seven-fold increase. On plausible assumptions it is shown that the return on investing in two oxen exceeds the return on the best alternative asset available to rural households, which is likely to be a post office account yielding a low rate of interest. In addition, cattle serve as a convenient form of wealth.

It is common to find that young male migrants will still use all their surplus money to buy cattle even when they are aware of the effect that this would have on the rural environment. This is not irrational behaviour under the circumstances as there are no other investment alternatives available in the homelands. As long as the beast stays alive, its value will inflate as the value of money decreases. In this way, it provides some sense of security.

In more recent years there have been encouraging instances of peasants making a better use of this wealth in the form of higher sales and greater consumption. It is felt therefore, that the apparent conservatism with respect to cattle reflects the options available to the community or the individual. The latter does have other options and voluntarily selects not to take them. There is a considerable amount of capital locked up in homeland areas and the potential to generate income is large. It is important therefore to establish why this is not happening and then to endeavour to isolate the extent to which this is a result of traditional customs or particular constraints individuals feel in relation to their environment (which they feel unable to change).

CONDITIONING FACTORS

Five factors may be identified here:

1. Land tenure

The essential features of land tenure in most African societies are well known: traditionally, the concept of property in land does not exist as all land is at the disposal of the chief who acts as representative of the community as a whole.

Four conditions attached to this system of land tenure are particularly detrimental to the full utilization of land and ultimately food production. The first of these is unwritten, but is visibly applied throughout the homelands: it is that land is not sequestrated from the current holder unless it has been left completely unused over a considerable period of years. Land cannot change hands and from a production point of view, the mere fact that one cannot transfer land from idle hands to active hands, represents a severe economic impediment.

The second condition implicitly present in the system of land tenure is that, even when obliged to allow their land to remain uncultivated, landowners are unwilling to allow the use of their land to someone else, even on a temporary basis, for fear that they may lose permanent usufruct.

Thirdly, and paradoxically in the light of what has just been said, the system does not offer the right kind of security of tenure on which working capital can be raised and which would encourage holders to apply capital to their land. The mere fact of not owning land detracts from the creditworthiness necessary to enter into the market and borrow funds. The white farmer, in contrast, is able to buy tractors, fuel, seed, fertilizer, etc, without any capital outlay by virtue of owning the land. Moreover, communally-owned land brings about desires by a rational population to exploit such land as much as possible without any investment to sustain development.

Finally, under the present system land is divided into small units for allocation, so that the desire of as many households as possible to hold land might be satisfied. This fragmentation of farming land makes the emergence of a category of full-time farmers impossible.

An important component of any successful development strategy for the tribal areas must be a policy of land reform. It is necessary to develop a strategy that will encourage both an increase in agricultural productivity and the economic utilization of the areas' grazing resources. This would, of course, presuppose a change in the rural peoples' attitude towards cattle so that they are seen as a productive resource rather than as a store of value. Moreover, specific crop pilot projects, pastures and grazing schemes should be initiated in a few select areas with the object of showing what can be achieved by a proper management of land and pastures.

The traditional system of land tenure was adapted to the environment in which Africans found themselves but, because of changes in this environment, this system does not satisfy the needs of the modern community. It must be stressed that reform should be part of an integrated rural develop-

ment strategy and that it should take forms adapted to local natural, economic, psychological and sociological conditions.

In this connection, a proposal put forward by a select committee appointed by the KwaZulu government to investigate the land tenure system in that region, is of great relevance. The committee proposed that in order to improve the use of available land, all existing land rights should be investigated and, if found valid, given formal recognition. From this point, a rental should be charged on all land and should be assessed in terms of the probable market value of the land since the system of freehold tenure, which is to be the ultimate result of these changes, will have the effect of creating a market for land which will function on economically realistic terms. It is assumed that the imposition of rental for land, as opposed to the present system of free usage by those to whom it is allocated, would have the advantage that it would oblige landholders to make productive use of their land, or else relinquish it. In addition, the collection of rent would provide Land Boards with an opportunity to check on the cultivation of plots and, if necessary, to encourage or oblige a holder who failed to cultivate to give up his holdings which would thus become available for lease to active farmers.

2. Marketing problems

One of the major constraints to agricultural development is the lack of inputs and of marketing outlets. Producing a surplus after the necessary finance has been provided is relatively easy, but the necessary markets must be available to distribute the surplus. Generally, the marketing system in South Africa is good but it is geared to white commercial agriculture; a modified version for homeland agriculture should be devised. The use of improved varieties of seed, fertilizer and insecticides would spread only if these current inputs could be made readily available to the small farmer. Lack of transport facilities and, only too often, lack of adequate supplies due to the almost total absence of marketing facilities for this type of input, are to a great extent responsible for the relatively slow pace of progress. In addition, no credit facility of any significance, or subsidy grant, has ever been made available to the homeland farmer for the acquisition of current inputs. The willingness of the farmer to adopt new production techniques, to bear new risks and to implement what the extension officer demonstrates as something more profitable, is dampened by factors often beyond the control of farmer and advisor alike.

3. Organizational problems

There is a multiplicity of bureaucratic institutions dealing with the development of agriculture in the homelands - the central government departments, newly-created homeland departments, and development corporations. Within this structure it is not uncommon to find animosity between the government departments and the agricultural section of a development corporation. The former are concerned mainly with extension services and the latter with funding of projects. In some areas this has been overcome and a good working relationship has been established (as in Transkei). Unfortunately, this is not so in some of the other homelands and obviously this means a waste of resources as two groups are pulling in two different

directions. At times the situation is worsened when agricultural planners impose on the local communities ideas which do not take into account vital local conditions. Perpetual differences between agricultural planners and farmers often abort projects which in themselves would have merits.

If progress is to be made, it is imperative that all development agencies be invited to participate in drawing up coordinated programmes in order that agencies be compatible with each other in clearly-defined areas of operation.

4. Education

Success stories in developing countries have shown that attempts at reforming agricultural practices begin early in the life of future farmers - in the classroom. Too often, however, school curricula in rural areas do not provide for any form of training in crop production and animal husbandry. Non-academic subjects have often been rejected by parents. It would seem that the aim of the education structure in the homelands is to prepare young people to be better migrants rather than better farmers. Even in the case of extension officers, the emphasis is often on academic subjects at the expense of a more practically oriented training. But, although a man may be theoretically qualified, he may not be able to do the job properly as his qualifications do not provide him with the practical knowledge. He must possess a full understanding of practical aspects of production so that he can extend this knowledge and provide the necessary advice to farmers.

An effective method of disseminating new ideas within the community is the establishment of training centres, particularly in those areas where viable agricultural projects have been identified. These centres could be used as a base for extension services, as nuclei around which producer-cooperatives would be formed, where production supplies could be obtained and certain types of output processed.

5. Problems of physical infrastructure

Infrastructural development in the homelands is generally poor with regard both to physical and social aspects. Roads and other means of communication are often inadequate. They are mostly gravel and tend to deteriorate markedly during rains and also in periods of prolonged drought. Vehicle failure and accidents are commonplace occurrences, and village communities can find themselves cut off from mobile clinic services for long periods of time.

Provisioning centres for farm inputs are typically underdeveloped or almost non-existent and the same applies to centres where consumer items can be bought. This lack of infrastructure acts to increase the economic distance from markets, and reduces or even destroys, incentive. Too often innovations are introduced which simply cannot be implemented because of the complete absence of other essential supporting services. Water, for instance is of paramount importance and the provision of this resource should take priority. Agricultural production and residential areas should be planned around access to water. Densely-populated areas appear to be an ideal location for improving infrastructure as presumably some facilities

are already provided, for example water. Individual communities do not always have the necessary resources to improve physical infrastructure. For this reason, financial assistance and technical expertise become essential.

CONCLUSION

It would appear that policies with regard to food production in the homelands may best be divided into two categories.

First, there are those which are capable of implementation in the short run and of stimulating productivity and output but without realising the full potential of homeland agriculture. These measures include the provision of credit for the purchase of inputs, a marketing infrastructure (especially for livestock and perishables), and extension services.

As has been repeatedly stated, production yields are low because, among other factors, the use of current inputs is inadequate; the acquisition of such inputs is precluded by the low level of income generated by low output. The provision of credit to break this vicious circle in the production cycle should therefore form an integral part of any agricultural development plan. But the mere availability of credit facilities is no guarantee of success. On the contrary, the injudicious extension of credit could encourage the small farmer to accumulate an unbearable load of debt. Safety measures should therefore be incorporated in a system of agricultural credit. Credit could be canalized to the farmer through agricultural cooperatives, not in the form of cash handouts but in the form of goods. Credit could be made subject to the acceptance by the farmer of conditions which would embrace the whole production process: the farmer who obtains credit from his cooperative should enter into an agreement to follow an approved production programme. No doubt, however, most of the details of such schemes are best left to the competent bodies to organize. What is emphasized here is the urgent need for such schemes to come into existence.

Increased government investment in homeland agriculture in the last decade or so has led to increased food output (at least before the drought), but only on an absolute, not a per capita, basis. This suggests that improvements are possible but that the scale of government programmes is not large enough. Paradoxically, however, agricultural departments do not have the ability fully to spend their annual budgets. One reason for this is the shortage of trained manpower, eg extension officers and veterinary surgeons. An intensive programme of training key agricultural personnel therefore is as crucial an element in an overall policy as are measures relating to marketing and credit.

Another important measure which could be implemented relatively quickly is an improved land tenure system. It is not advocated here that the traditional system of ownership be abolished in favour of individual ownership, nor is it claimed that such a change would be a prerequisite for agricultural development. What is contended, however, is that government must seek reform in a way which, while still compatible with social needs, will guarantee a more efficient utilization of land and adequate security of tenure to those who are seriously interested in producing a surplus. Such a system, could, for example, consist of the introduction of measures to commercialize the right to use land by placing a monetary value on the use of land and by empowering tribal authorities to expropriate an inefficient farmer.

The second category consists of essentially long-term policies for the creation of full-time, commercial farming aimed at producing a surplus. This would require the removal of some families from the land but might encourage males who would ordinarily migrate, to remain in agriculture, thereby ensuring that food production would no longer rest on the efforts of females and children. Those who are removed from the land would either move to the cities and towns or be absorbed in activities in country towns and rural service centres which are linked with the agricultural sector.

In the final analysis, the stimulation of homeland food production and the encouragement of full-time, commercial farming depend upon an improvement in the living environment of the black population inside, as well as outside, these neglected areas of South Africa.

3. WATER, SEWERAGE AND FUEL

Francis Wilson

> 'Much of South Africa still cannot take for granted its ability to meet basic adaptive needs: food, water, shelter, and other factors essential for survival and human dignity. Why are there still widely prevalent threats to survival when modern science and technology have made such powerful contributions to South African society? And what can be done to diminish the kind of vulnerability that leads to desperation?'
>
> - David Hamburg, (CCP* 309: 12)
> President, American Association for the Advancement of Science

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The Carnegie Inquiry collected a mass of evidence on the different dimensions of poverty in all corners of southern Africa. In this section we shall limit our attention to three of the basic needs for human beings in any society. The first is water. The other two often tend to be overlooked but are nevertheless essential: adequate removal of sewerage, particularly in densely populated communities; and fuel.

Let us start with an examination of the evidence. The problem of water both in terms of the quantity available and of the quality of dwindling supplies has been highlighted by the recent drought. Reports in the press of some districts in the Transkei losing up to two-thirds of their cattle, stories of women having to walk as far as twelve kilometres for water, or of queues forming at boreholes at three in the morning, and the arrival of a cholera epidemic in the eastern part of the country have all served to make urban dwellers more conscious than they have been of the inadequacy of water supplies in South Africa. Yet the problem is not new. And whilst the drought has undoubtedly exacerbated the problem it has certainly not caused it.

Consider, for example the area around the Mseleni River near Manguzi in northern KwaZulu. In this district it is estimated that approximately half the women over the age of 25 are already suffering from a chronic progressive 'arthritis' known as Mseleni Joint Disease which attacks the joints, particularly hips, knees, ankles, or wrists. Walking is often extremely painful, sometimes impossible. Yet in this area a study has shown that 60

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*All references are to Carnegie Conference Papers, as listed on page 30.

per cent of the households are more than a one hour round trip to water (Mann, CCP 191: 7). 'It is ironic,' writes the medical superintendent of Mseleni Hospital, 'that within a few miles of the largest natural fresh-water lake in South Africa (Lake Sibaya) people have to walk for one to two hours to reach their nearest well or other water source'. For those too crippled to walk who have to pay someone to draw water, the cost is estimated to be one cent per litre, which is approximately 33 times more expensive than running tap water in the urban homes of metropolitan South Africa.

Further south in the Transkei, a study by Bembridge of three different villages shows that the average family spends over three hours (187 minutes) per day collecting water. 'Whatever the distribution between individuals the time taken in collecting water imposes a large inroad into available working time of women as well as a physical burden! (Bembridge, CCP 261: 13). Just how much of a burden this can be is seen in a careful study by Stone of water supplies in the Chalumna area of the Ciskei where he found that the energy expended in the average walk to the homestead carrying a drum of water (weighing 21 kilograms) was equivalent to that used by miners wielding a pick, rather more than the energy needed in mixing cement. For one village, the hill up from the water was so steep that the energy expended was equivalent to that needed in cross-country running. The average one-way journey from homestead to the water supply was 15 minutes, ranging from a low of five minutes to a high of 40 minutes. In this area 90 per cent of households drew their water from sources that were open to contamination by stock (Stone, CCP 148). What this can sometimes mean was highlighted in a study by Schutte of one Venda village in the northern Transvaal, where in the 12 months previous to his study 10 of the 30 babies born had died. Comparison with another village suggested that the absence of clean water was a major cause of the high death rate (Schutte, CCP 64). Returning to the Ciskei for a moment it is ironic to note that water supplies in Chalumna improved markedly during the drought, for the government made a tanker available which brought clean water into the middle of the villages. Once the rain fell and the drought was broken the water supply deteriorated to its previous condition.

In his study of water supplies in the eastern Cape, Stone also found marked differences between different areas and different political-economic communities. Thus per capita consumption of water within the Ciskei reserve averaged nine litres, which compares unfavourably with the World Health Organization goal of 50 litres per person per day. In the smaller towns of the Eastern Cape Stone found that per capita consumption by blacks was 19 litres, twice as much as in the reserve, but far less than the white consumption of 314 litres per person per day. In the metropolitan area of Port Elizabeth black consumption rose to 80 litres, but still far below the white average of 200 litres.

Another way of looking at the extent of the difference in access to water is to consider the availability of taps. In middle class, metropolitan, predominantly white homes, an average of two or three taps per inhabitant is not unusual. In the Mhala district of Gazankulu in the eastern Transvaal the average works out at one tap for no less than 760 people. Indeed in Mhala south it was found that half of the 25 villages had no access to clean water (Buch and de Beer, CCP 192: 2).

It would, however, be misleading to suggest that the supply of clean drinking water is a problem in all black communities. In Soweto and many other townships the houses all have at least a cold water tap inside. And in the rural areas both on farms and in the reserves there are many homesteads with reasonably adequate supplies. In Nkandla, one of the remoter parts of KwaZulu, for example, Elizabeth Ardington reports that, 'Water is always available from the numerous perennial streams and springs in the area.' (Ardington, CCP 53b: 131). Nevertheless even here there are problems in that springs are not protected and hence are open to contamination, although the population is still relatively small and so water supplies are in general not polluted. However, most homesteads are located on the top of the hills (near the road) and hence there is a very steep climb back to most homesteads by the drawers of water. In the peri-urban areas the situation varies a good deal but here too there are places where supplies are considered reasonable. Indeed Ardington reports that in the area between Sundumbili township and the Isithebe factories north of Mandini the acess to clean piped water is seen as a great benefit of living in the area (Ardington, CCP 246: 64).

Nevertheless it is fair to say that the overwhelming mass of evidence presented at the Conference on the Second Carnegie Inquiry into Poverty and Development in Southern Africa (Cape Town, 13-19 April 1984) points to the lack of adequate supplies of clean drinking water as a major problem facing black communities throughout the rural areas of South Africa, particularly but not only in the reserves. From Bendell north of Kuruman (Templeton, CCP 77) to KwaZulu in the east (Ndaba, CCP 206) the story was the same: 'We need water'. Again and again in her report on conditions and health status in different parts of KwaZulu Nomusa Ndaba comments on how muddy and dirty the water is. For example, 'One lady whose house I went to at Esikhawini near Empangeni, showed me pure mud in a glass jar. She was waiting for all the dirt to form a sediment so that she could use the top part. The alternative was walking over a kilometre to fetch water from one of the location houses. She was at the time highly pregnant and to have to carry a heavy bucket of water for that distance in the scorching February sun must be absolutely terrible. She showed me some of the places where they fetched water, fountains in the middle of their banana plantation. It was plain mud; the situation is made even worse by the fact that people have cattle and that is where they drink.' (Ndaba, CCP 206: 38).

Yet the fundamental problem is not so much an absolute lack of water for all the people but rather a question of its distribution. In the Transkei for example, where during the drought women were reported to be walking from four to 12 kilometres to fetch water (Muller, CCP 149: 11) notes that only seven per cent of usable water (from rivers) is currently being consumed. Furthermore of the retractable underground water it is estimated that only 0,9 per cent is being consumed. Eighty per cent of the springs in the region are unprotected, but even intervention has not been without problems. In villages with windmills access to water is generally good but one in seven of these pumps was not working, due partly to design faults. Where the installation of communal taps brought water it also, given the extent and pattern of disease in the area, increased the spread of tuberculosis amongst those, especially children, drinking from the same tap.

SEWERAGE

Alexandra, one of the oldest townships on the Witwatersrand is located not far from the centre of Johannesburg, on the edge of the affluent northern

suburbs. Despite its age and its position it remains notorious for the absence of adequate infrastructure to support the large population which lives there, primarily to service the surrounding economy. Nowhere is the woeful inadequacy of the infrastructure more noticeable than with regard to sanitation. One report for the Carnegie Inquiry described 'sewerage flowing in the streets' (Ntoane and Mokoetle, CCP 2: 9) as a result of the overloading of the existing bucket system. The report also drew attention to the 'uninviting bad odour' which resulted.

Nor is Alexandra unique. Evidence was presented to the Carnegie Conference from all corners of the country about the chronic failure of local authorities to plan an appropriate infrastructure for the dense concentrations of working class people not only in the towns but also in resettlement and peri-urban areas. In Port Elizabeth the outbreak of a measles epidemic which claimed the lives of nearly 300 children in 1982/1983 led to the appointment of a special committee to investigate conditions particularly in Little Soweto, the squatter area on the edge of the city. There the investigation found 'overflow and random dumping of sewerage' from the pit latrines which were still being used. As Caroline White reported (CCP 21: 10), 'Originally sewerage was disposed of by pit latrines, but because of the clay soil they tended to collapse and overflow in wet weather. A bucket system is now provided but, according to residents they still need pit latrines because the collection is inadequate...' In a much smaller town, Clarens in the Orange Free State Christine Walwyn found appalling conditions with 800 residents of the black township having to use 12 pit toilets, an average of 66 persons to each lavatory. But, 'Permission has now (1984) been given by the Oranje Vaal Board for residents to dig a pit toilet in each stand.'

And in what used to be thought of as a rural part of the northern Transvaal, Harries reports that, 'In order to combat water-borne diseases like cholera and typhoid, aspects of health education such as hygiene and nutrition, the building of toilets and the chlorination of household water are stressed, particularly by the highly successful care groups [See CCP 231]. The construction of toilets remains a major problem as it is time, labour and capital-consuming. Sutter and Ballard estimated that in 1980, only 50 per cent of schools and 20 per cent of households were equipped with toilets. In 1982 it was admitted in the Giyani legislature that only 10 per cent of schools have 'adequate' toilets, 30 per cent have inadequate toilets and 60 per cent have none at all. At Ntlaveni, the building of a drop lavatory system for each stand was enforced in July 1983. The fine for non-compliance is much resented, particularly as it was raised from R30 to R50 in October 1983.' (Harries, CCP 67: 8).

The dangers of bad lavatories was stressed by Friedman (CCP 150: 24) who found a positive correlation in the Valley of a Thousand Hills near Durban, between the existence of toilets and illness. This serves to reinforce the observation of Sikwebu from his study of Nyanga in Cape Town when he drew attention to the fact that in two schools, 'A major complaint was the bucket toilet system still in use. This was said to create an unnecessary health hazard. Apparently this has been the subject of complaint to the bureaucrats for years. Although promises have been made, nothing concrete has been done. In another school... the sanitation is worse. The toilets are situated five metres away from the classrooms. A much more primitive system of toilets is used in this school, ie the bore-hole system. This is really a health hazard.' (Sikwebu, CCP 10a: 10).

Sikwebu's observations are important for they draw attention not only to the health issue but also to the underlying problem of political powerlessness. From the mass of evidence presented to the Carnegie Conference there is no doubt that the basic infrastructure for sanitation is woefully inadequate in South Africa and also that such systems as have been installed are not properly maintained by the appropriate authorities. And this is primarily because the political structures which make authorities responsible to the broad wishes and needs of the people they have been created to serve simply do not exist. This fact was dramatically highlighted in the black township near Nigel on the east Rand in February 1985 when, 'Offices of the East Rand Development Board in Duduza were attacked and stoned by hundreds of youths. Police fired rubber bullets and birdshot and used tearsmoke to disperse the rampaging youths. The violence flared after residents started dumping buckets of excrement at the local council offices. It was done to protest against the toilet-bucket system in use in the township.' (Cape Times, 19 February 1985). From the evidence emerging from the Carnegie Inquiry it would seem that Duduza is by no means the only place in South Africa where people are deeply resentful of having to look daily at this particular face of poverty and powerlessness.

FUEL

'Let us suppose,' wrote the Washington-based Worldwatch in a famous observation, 'that we shall be able to produce all the food we need by the year 2000. Are we sure that we shall be able to cook it?' The question forces one to face an issue to which surprisingly little attention has been paid in many parts of the world, not least our own. In South Africa's Health Services Facility Plan as set forth by the National Health Policy Board in 1980 four key basic needs for the society were identified (Olver, CCP 166: 27). These were drinking water, food, sewerage, and housing. Nobody would question their importance. But there is one glaring omission. Nobody who knows the rural areas of South Africa, particularly the reserves, could ignore the problem of fuel. Time and again in papers presented to the Carnegie Conference, researchers working in the 'homelands' drew attention to the difficulties faced by people in obtaining fuel primarily for cooking but also for warmth and for light.

In his paper on domestic energy in KwaZulu (CCP 156) Gandar details the amount of time taken to collect one headload of firewood. In the valley lowveld the average distance walked in collecting one headload is 3,6 kilometres, and the average time taken in collecting the one load is just over 2,5 hours (155 minutes). In the high grassland areas the distance and time are 8,3 kilometres and 4,5 hours. In one extreme case Gandar found a woman who had to walk 19 kilometres and spend 9,5 hours collecting each load. Households require between two and three headloads per week. 'If wood gathering is counted as part of food preparation,' says Gandar, 'more effort is put into the preparation of food than the growing of it.' (CCP 156: 5). Nor is the prodigious amount of time that has to be spent in gathering fuel the only problem. It seems to be becoming more dangerous as well. For women 'the risk of being molested by strangers in the woodlands' was reported not only in KwaZulu but elsewhere as well. In QwaQwa for example where population has risen seventeen-fold in 14 years pressure on the existing natural resources has become intolerable. Women have to walk far into the mountains to gather fuel and the danger of rape is ever present (Niehaus, CCP 297: 13ff).

The ecological consequences too are devastating. In KwaZulu Gandar notes that in recent years the people have moved from gathering dead wood to cutting off green branches or felling complete trees. He found that in the valley lowveld eight per cent of the firewood comes from live trees whilst in some other areas most of the wood is chopped down live. He noted further that since 1936, 200 of the 250 forests in KwaZulu have disappeared. A fact dramatically illustrated by Elizabeth Adington's observation that Ceteswayo was buried 100 years ago deep inside the Nkandla forest. Yet today his grave lies a kilometre or two from the line of trees (Ardington, CCP 53b: 133). The seriousness of the situation is seen in the fact that in QwaQwa the combination of the distance she has to go to collect fuel, the dangers inherent in going, and the further possibility that she may be fined by the chief for gathering fuel may lead a woman, when she has too much housework sometimes, to cut off branches from her fruit trees (Niehaus, CCP 297: 15).

The macro implications of this ecological pressure were vividly described by Daniel in his description of the district of Hewu in the northern Ciskei, near Queenstown. He identifies 'the relentless daily search for fuel, be it wood or cowdung' as one of six factors aggravating the deterioration of the environment. 'The Thornhill resettlement provides an example of vegetation annihilation. In 1976/1977 about 40 000 people moved from the Herschel district and were settled on the flanks of Ntabathemba, the hill of hope. The area, suited to extensive stock-farming, was dramatically changed into an area of dense human settlement with disastrous results on the physical environment. From the air this area stands out as a reddish patch of bare soil, virtually devoid of vegetation. In 1976 Ntabathemba had a good cover of thorn trees and bush. By 1981 hardly a tree was to be seen on the slopes of the hill. These slopes are now subject to greater run-off and erosion by water and wind. What has happened here is happening in all areas of denser settlement, unless located near plantations. The influx of large numbers of people has upset any balance that may have existed before between man and his environment. The change is readily observed but there is no hard data as a result of measuring it... The energy crisis in the underdeveloped rural areas of South Africa has been recognized... the public (needs to be made) aware of the mutilation of the environment that is taking place as a consequence of the extensive use of wood for fuel, even to the extent of the roots of trees being completely removed. Man is playing a direct role in the destruction of the vegetation cover.' (Daniel, CCP 144: 6-7).

All the evidence to the Carnegie Conference amply supported this conclusion. In Lebowa, for example, the slopes of the Leolo mountains near Maandagshoek were completely covered by trees 20 years ago. Recently, as I was shown by the local Dutch Reformed Church pastor, a large amount of rock is visible as people come up from the plain to cut down the trees for firewood. Only scattered bush is left. In another part of Lebowa if people cannot afford to buy coal they must spend six or seven hours collecting one headload of wood. Anne Templeton reported that on the other side of the country, around Bendell north of Kuruman, the shortage of fuel is perceived by the people resettled there as being a major problem (Templeton, CCP 77: 11). And in the Transkei there are many places where wood is hard to come by and rural people with little income have to rely mainly on paraffin. In his study of three villages, Bembridge found that the average household spent R10,18 a month on fuel which it could ill afford, as this constituted no less than 10 per cent of income (CCP 261: 14).

But it is not only in the rural underdeveloped area that fuel is such a problem. Both on the platteland and in the cities evidence of severe hardship due to lack of fuel was found. For example in Hanover in the Karoo, Archer and Meyer reported that, 'Wood is so scarce that people chop out the wooden window frames and doors of old deserted houses in the white "dorp" (village) for firewood. This happens especially during winter when coal is in short supply, as it is delivered to Hanover only twice in that season. Some families cannot afford to buy coal as a small plastic bag of one kilogram costs 55 cents. They are forced to collect papers which litter the area, partly from the open garbage carts; paper cartons of aloe beer (the cheapest liquor around town) are used for the same purpose. It is not unusual for people to scratch in dirtbins for paper to burn. Often the ashes of one household are collected by another for the bits of coal left over. A few years ago people could go into the veld to collect what wood there was; now farmers have fenced their properties making access difficult.' (Archer and Meyer, CCP 34: 19).

In the big cities the problem is often no less acute as was dramatically illustrated with the discovery in East London in 1976 of severe brain damage in six black children from a cause originally identified in Baltimore, USA in 1933 and christened the 'depression disease'. In her study of lead toxicity and poverty Yasmin von Schirnding draws attention to a report by Harris in the South African Medical Journal (1976) concerning the six cases of lead encephalopathy. Three of the children were visited at home and all three families were found to have burnt discarded storage battery casings in open braziers for fuel (von Schirnding, CCP 180: 2).

Another dimension of the problem of fuel in urban areas was shown by Eberhard in his study on energy and poverty in Cape Town where he found that fuel for cooking, heating and lighting often costs more per unit of energy for the poor than it does for those who are better off. For example, in Valhalla Park he found that those households wealthy enough to afford the connection fee for electricity supply then spent an average of R25 per month on energy. Poorer households, that had to use paraffin and candles, had running costs nearly three times as high, R65 per month. Households without electricity in the poorer suburbs of Lotus River, Grassy Park and Bellville South all spent more absolutely on energy each month than did those living in the white, middle-class electrified homes in Pinelands. It is worth noting that as a source of light, candles are 173 times more expensive per unit of energy (mJ) than is electricity. Even wood, a major source of energy used by no less than 57 per cent of the households living in the non-electrified areas around Cape Town, costs nearly three times as much. Those using wood consume just under one ton per person each year. And where it is collected, rather than bought, users complained (as in QwaQwa and KwaZulu) of the dangers involved; because of 'skollies' (Eberhard, CCP 155: 8-9).

It would be a mistake to conclude that fuel is always and everywhere a problem for the poor. For example in Welbedacht, a resettlement area of Bophuthatswana, west of Zeerust, Graff found that, 'Fuel-gathering is quite easy on the surrounding hills' (Graff, CCP 60: 34). In Nkandla, KwaZulu, Ardington notes that, 'Wood for fuel is plentiful and free.' However she goes on to point out that although many migrants had brought back wattle seedlings which had established themselves, nevertheless, 'Woodgathering does ... involve a large number of people and many hours of labour.'

This amounts to almost 20 hours per household per week in fact (Ardington, CCP 53b: 132). And on the platteland, on the farms round Clarens in the Orange Free State, 'Wood and water is normally freely available except on farms further from the mountains where there are few trees and often little water.' (Walwyn, CCP 41: 15). Thus even in those areas where researchers found that fuel was not considered to be a major problem, indications of its increasing scarcity emerged. Whilst there are many poor people for whom fuel is readily available, the evidence suggests that for the vast majority living in the 'homelands' and for significant numbers on the platteland as well as in the cities the problem of finding or affording fuel for cooking, heating, and lighting is overwhelming.

What then is to be done? In an important policy paper on 'Energy, poverty and development in South Africa' Eberhard and Gandar note that, 'Today the Electricity Supply Commission (Escom) ranks among the top seven electricity suppliers in the world. It produces approximately 60 per cent of Africa's electricity, yet the majority of South Africa's population is denied access to the electricity grid which serves mainly the "white" urban areas and some farms.' Furthermore they charge that, 'Energy policy in South Africa has concentrated exclusively on commercial fuels such as coal, gas, petroleum and electricity for the industrial and metropolitan centres, and has ignored renewable energy resources such as fuelwood and agricultural residues and the needs of underdeveloped areas. These areas lack even a coherent development plan in which energy issues can be located' (Eberhard and Gandar, CCP 154: 5). They go on to argue (p 26) that, 'Current energy planning, with its emphasis on large-scale centralized power stations with their highly inequitable distribution systems has proved inadequate for the needs of the rural populations in underdeveloped areas.' They point out that, 'Wood is convenient, relatively cheap, does not require fancy appliances and is renewable. It will be the primary domestic fuel for the forseeable future.' However, 'It would require approximately one million hectares of plantation to provide for South Africa's firewood requirements on a sustained yield basis. At the moment, the extent of non-commercial plantation for firewood is less than 2 per cent of this and over half of it is in Transkei.' As Gandar pointed out in another paper to the Carnegie Conference, 'The firewood consumption of KwaZulu as a whole is about two million tonnes per year, taking 150 man (woman) years to collect. In a very rough estimate, indigenous woodland can provide about half without deleterious effects and without the transporting of wood over large distances. This leaves a shortfall of one million tonnes. To provide this on a sustained yield basis will require about 125 000 hectares of woodlots! This is about 100 times the existing area of woodlots and is clearly an unobtainable goal.' (Gandar, CCP 156: 13).

In their consideration of policy options, Eberhard and Gandar stress the importance of a number of steps to increase the production of firewood but go on to emphasize the need for more attention, '... to be given in energy planning to the use of local systems involving the maximum use of solar, wind, water and biomass energy technologies.' But they conclude by pointing out that energy consumption in the country has been shaped by the pattern of development, thus, 'Efforts to overcome energy problems in underdeveloped areas must involve the reallocation of resources at a national level. There is no overall shortage of energy in South Africa, only a highly inequitable distribution of and access to energy resources.' (Eberhard and Gandar, CCP 154: 28-31).

In thinking about the problems posed by the inadequacy of water, sewerage, and fuel as evidenced in so many of the papers presented at the Carnegie Conference perhaps the best picture on which policy makers could focus is that of the elderly woman walking miles to gather a 40 kilogram bundle of firewood which she carries home on her head walking, at some point on the path not very far from her homestead, underneath an Escom power line. Fundamental rethinking is needed if all the people in South Africa are to live with even their most basic needs adequately met.

REFERENCES

The following papers presented at the Conference on the Second Carnegie Inquiry into Poverty and Development in Southern Africa (13-19 April 1984, Cape Town) are quoted:

Archer S and Meyer E. Hanover: A profile of poverty on the Eiselen line (CCP 34).

Ardington E. Poverty and development in a rural community in KwaZulu. Part 2: Chapters IV-V (CCP 53b).

Ardington E. Decentralized industry, poverty and development in rural KwaZulu (CCP 246).

Bembridge T J. Aspects of agriculture and rural poverty in Transkei (CCP 261).

Buch E and de Beer C. Health and health care in Mhala: An overview (CCP 192).

Collins R and Maluleke J. Thinking our way out of the bottom of a pit latrine (CCP 231).

Daniel J. Man-land relationships in the Eastern Cape (CCP 144).

Eberhard A A. Energy and poverty in urban and peri-urban areas around Cape Town (CCP 155).

Eberhard A A and Gandar M V. Energy, poverty and development in South Africa (CCP 154).

Friedman I. Basic needs and health in the Valley of a Thousand Hills (CCP 150).

Gandar M V. The poor man's energy crisis: Domestic energy in KwaZulu (CCP 156).

Graaff J F de V. Villagers without land: The household subsistence level in a Lehurutshe resettlement village (CCP: 60).

Harries P. Aspects of poverty in Gazankulu: Three case studies (CCP 67).

Mann D. Aspects of the social effects of Mseleni joint disease (CCP 191).

Muller N D. Aspects of the political economy of drought and water in Transkei (CCP 149).

Ndaba N. Conditions and health status in KwaZulu. An overview (CCP 206).

Niehaus I. Relocation and deprivation in QwaQwa: The experiences, problems and responses of closer settlement residents (CCP 297).

Ntoane C and Mokoetle K. Major problems as perceived by the community (CCP 2).

Olver C G. Poverty, health and health care in South Africa (CCP 166).

Schutte A G. Poverty and rural deterioration: Two case studies from post-'independence' Venda (CCP 64).

Sikwebu D. Profile of Nyanga (CCP 10a).

Stone A. A case study of water resources and water quality of the Chalumna/Hamburg area of Ciskei (CCP 148).

Templeton A. Bendell (CCP 77).

Von Schirnding Y. Lead toxicity and poverty: Preliminary case study investigations in Cape Town school children (CCP 180).

Walwyn C. Survey of aspects of rural poverty in Clarens and the surrounding areas and of certain aspects in the black townships of Bethlehem and Harrismith (CCP 41).

White V. Poverty in Port Elizabeth (CCP 21).

4. RURAL EMPLOYMENT AND SOLUTIONS TO UNEMPLOYMENT

C E W Simkins

'I sit on a man's back, choking him and making him carry me, and yet assure myself and others that I am very sorry for him and wish to ease his lot by all possible means - except by getting off his back.'

- Tolstoy

This paper is divided into five imperfectly articulated parts. The first reviews the little we know from statistical sources about black employment in rural areas. The second discusses the effects of structures, laws and policies which discriminate against black people in rural areas. The third summarizes the findings of papers (presented to the 1984 Conference on the Second Carnegie Inquiry into Poverty and Development in Southern Africa) which dealt with coloured people in rural areas. The fourth discusses past and present state policies intended to produce rural uplift and some substitutes for or complements to these policies; the last is a concluding paragraph.

REVIEW OF INFORMATION FROM STATISTICAL SOURCES ABOUT BLACK EMPLOYMENT IN RURAL AREAS

South African employment statistics leave a great deal to be desired; nowhere is this more true than in agriculture. The picture in this section is therefore no more than a rough sketch; nonetheless it will support a few broad conclusions.

It should be noted at the outset that all data in the population census and current population survey are presented by place of residence rather than by place of work. Many black people both inside and outside the homelands live in rural areas and work in urban ones, so part of the analytical problem is to determine how far the rural economy supports rural residents and how far rural residents depend on neighbouring urban areas. This is particularly important in the case of the homelands, but the dependence is not negligible outside them, as will appear.

Rural areas outside the homelands

Table 1 compares employment of black people living in rural areas outside the homelands in 1970 and 1980. The information is drawn from the 1970 and 1980 Population Censuses and the 1980 information is adjusted so as to reflect the position in the areas defined as rural in the 1970 census. This involves cutting out a number of mine compounds classified as urban in 1970 but as 'non-urban' in 1980.

Table 1. Employment of black non-homeland rural residents, 1970 and 1980

Sector	1970			1980			Increase (%)
	Male	Female	Total	Male	Female	Total	Total
Agriculture	747880	238160	986040	641340	215860	857200	-13,1
Services	30720	188900	219620	63820	170320	234140	6,6
All others	192140	8140	200280	287980	30440	318420	59,0
Total	970740	435200	1405940	993140	416620	1409760	0,3
Percentage distributions							
Sector							
Agriculture	77,0	54,7		64,6	51,8		
Services	3,2	43,4		6,4	40,9		
All others	19,8	1,9		29,0	7,3		

The first thing to notice from Table 1 is the absolute drop in agricultural employment, about 13 per cent over the decade. This is confirmed by the Agricultural Census; Roukens de Lange and van Eeghen construct a series for agricultural employment based on this source and arrive at figures 14 per cent and 19 per cent lower than the population censuses, implying a drop of 18 per cent over the decade (Roukens de Lange and van Eeghen, 1984: Vol II Table 1.1)[1]. The standard expectation is that this sort of decline is set to continue for the time being.

The other important change is the rapid rise of employment of rural residents in sectors other than agriculture and services. The proportion of men so employed rose from 20 per cent in 1970 to 29 per cent in 1980; the female proportion rose from two per cent to seven per cent. Without more detailed information it is difficult to supply a definite interpretation of this trend, but it seems likely that it reflects an increasing propensity of farm residents to work in off-farm jobs. Seleoane, in a study of eight farms near Middelburg, Transvaal undertaken in 1982, found that of 93 male workers 27 (29 per cent) and of 52 female workers 22 (42 per cent) had

[1] A major issue in the measurement of agricultural employment outside the homelands is the treatment of casual labour. The Population Census counts everyone it finds working in agriculture on census day; Roukens de Lange and van Eeghen work with a full-time equivalent concept. This may explain much of the difference.

off-farm jobs (Seleoane, 1984: 3). The proximity to a large town may make these figures rather higher than national figures would be; nonetheless, the male proportion of off-farm workers in Seleoane's sample corresponds with the national proportion of employed farm residents working in sectors outside agriculture and services. Seleoane's figures for women suggest the hypothesis that a considerable proportion of women service workers (nearly all of whom are domestic servants) work off-farm as well as those in sectors other than agriculture and services.

There are complicating factors which hinder the construction of a more complete account:

1. The absence of information on key aspects of settlement in rural areas outside the homelands. We do not know how many people live on farms and how many in off-farm areas which are nonetheless rural. Probably the proportion of the latter on the whole is small but quantitative judgements about the size and trend in size of this population by type of farm (by ownership and occupation) is unknown. The 1959 Commission of Enquiry into the European Occupancy of the Rural Areas classified farms as European owned and occupied, European owned but not occupied by Europeans and abandoned farms. (We should now substitute 'white, coloured and Asian' for 'European'). It drew maps of farms by status for parts of the Orange Free State and Natal and supplied summary statistics for the other parts of the country. In doing this it revealed a fascinating picture, one which has never been updated. If 'black spots' are added (African-owned land outside present or planned homeland boundaries) then we have five categories of rural settlement outside the homelands, each of which may make varying contributions to population growth, employment growth and income growth. Assessment of these contributions is impossible without further information.

2. A lack of satisfactory analysis of the determinants of population, and employment incomes on farms for which Agricultural Census returns are required. Two approaches - the micro and the macro - can be distinguished here. A good example of how far one can get at the micro level of analysis is de Klerk's study of maize farming in the western Transvaal, which provides us with a coherent explanation of the pattern of mechanization and its employment implications. The disadvantage of micro analysis is that it is patchy and does not employ a uniform methodology, so conclusions about the macro situation are hard to draw. Yet a study by Budlender using magisterial districts in the 1955 and 1976 Agricultural Censuses as units of observation shows how complex the macro analysis quickly becomes. Budlender uses only two entirely independent variables: a 'political' one of proximity to homelands (close/far) and a 'natural/technical' one of land use (pastoral/arable). These two variables are themselves related with areas close to homelands being predominantly pastoral, and this gives rise to the possibility of confusion between factors in explanations. Dependent variables used are measures of population, employment, mechanization, farm size and income. Budlender found a set of (mostly weak) correlations between some of these variables and many of those found were hard to interpret. Further progress must await a mixture of better information, more fruitful hypotheses and the application of superior statistical methods.

Homeland rural areas

Table 2 sets out employment among rural residents in the homelands as recorded by the 1980 Population Census. An estimate of how much of this employment is located inside the homelands can be found by subtracting estimates of commuter employment from the Population Census figures.

Such an exercise is very approximate; it identifies commuting to rural areas with agricultural employment, which yields an underestimate of agricultural employment in the homelands (particularly noticeable in the case of KwaZulu) and a corresponding overestimate of industrial employment there. It is also uncritical of the rather fluid boundaries between employment, unemployment and economic inactivity in the homeland rural areas. Nonetheless the aggregate figure for agricultural employment in the homelands seems of the right order of magnitude, judged against the old Tomlinson estimate of the absorptive capacity of homeland agriculture and bearing in mind that real urban wages have risen a long way since the mid-1950's. Crude as the exercise is, it suggests that in 1980:

1. 39 per cent of the employment among homeland rural residents was home-located beyond land boundaries. This includes the majority of non-agricultural jobs.

2. 380 000 non-agricultural jobs within the homelands were held by homeland rural residents. 36 per cent of employed homeland rural residents held such jobs. The remaining 64 per cent worked in agriculture. The

Table 2. Employment among homeland rural residents and commuters, 1980

	1980 Population Census employment		1980 Commuter employment		1980 Employment within homelands	
Homeland	Agricultural	Other	Agricultural	Other	Agricultural	Other
Ciskei	11540	86340	-	38100	11540	48240
KwaZulu	60380	395380	60380	293200	-	102180
Gazankulu	10240	30340	3400	5400	6840	24940
Lebowa	47700	113460	15500	50300	32200	63160
QwaQwa	540	12040	-	6800	540	5240
Kangwane	6140	11600	6140	11600	-	-
KwaNdebele	1560	13680	1000	4900	560	8780
Transkei	420238	110065	700	380	419538	109685
Bophuthatswana	157121	159203	15000	146200	142121	13003
Venda	50480	7861	1600	4000	48880	3861
TOTAL	765939	939969	103720	560880	662219	379089
	1705908		664600		1041308	
	44,9%	55,1%			63,6%	36,4%

Sources: 1980 Population Census
BENSO Statistical survey of black development 1981 and 1982

Note: Commuter employment estimates adjusted downwards to Population Census counts where necessary.

ratio of just over a million jobs to over nine million homeland rural residents underscores once again the massive dependence of homeland rural residents on the earnings of commuters and migrants.

To summarize: In 1980 there were about 2,2 million jobs for black people actually located in the rural areas of South Africa. This represented about 39 per cent of all black employment on the basis of Roukens de Lange and van Eeghen's figures (for all sections except agriculture) (1984 vol II: Table 1). On the other hand 65 per cent of the black population live in these areas (Simkins, 1984a: 77). Of these jobs three-quarters were in agriculture; 60 per cent of agricultural employment was wage employment. Outside the homelands, incomes of rural households were increasingly supplemented by incomes from off-farm urban employment during the 1970's. Dependence (understood here in a purely descriptive sense) of rural households on urban employment is still much less outside the homelands than in them.

THE EFFECTS OF STRUCTURES, LAWS AND POLICIES WHICH DISCRIMINATE AGAINST BLACK PEOPLE IN RURAL AREAS

Discriminatory measures in South Africa's rural areas are of much longer standing than those in the urban areas; but, whereas those in urban areas have come in for considerable scrutiny and some actual dismantling in recent years, the edifice of discrimination created in the rural areas over the past century and a half remains intact. A possible explanation for this is the suggestion by Lundahl and Wadensjö that manipulation of rural policy variables does not give rise to conflicts between white groups unlike, for instance, a policy of job reservation (1984: Chapter 8). Three sets of measures deserve attention here:

Land allocation

The treaties, conquests and allocations of the nineteenth century were rationalized and consolidated by the 1913 Land Act. At the time black people were hit not so much by the prohibition in purchase of land outside the scheduled areas, but by the prohibitions on hiring of land and sharecropping. Plaatje's 'Native life in South Africa' reports widespread evictions following the passing of the Act. The black population of the rural areas outside the homelands rose rather slowly in the 1920's and 1930's and very slowly in the 1940's; in this period net emigration reflected mainly the attraction of urban areas. In the 1950's net emigration was slowed by influx control. Towards the end of that decade, however, the homelands policy (built on the Land Acts) was introduced. This was to result in a massive exodus over the next quarter century. Components of this exodus are:

- The abolition of numerous 'black spots' and the removal of their inhabitants,
- the formal abolition of labour tenancy and removal of labour tenants unwilling to become wage labourers,
- a more rigorous definition of maximum numbers of black households on particular farms with enforcement resulting in removals of 'surpluses', and

- removal of squatters, ie those without a labour tenancy or wage employment contract.

All these policies remain in force.

What would have happened without these prohibitions and controls? It seems certain that there would have been more people involved in agicultural production in rural areas outside the reserves. More land would have been productively used and production would have been more efficient. It is not clear what would have happened to marketed output; it might have dropped or risen. Overall, techniques of production would have been more labour intensive. The last 25 years have damaged the labour absorptive capacity of the rural areas outside the homelands and it is unlikely that the damage can ever be fully undone; nonetheless, if 'black spots' are left alone, if black people can hire land, share-crop or enter into labour tenancy agreements, these rural areas will immediately offer new employment opportunities. Perhaps a simple change of rules is all that is required; perhaps special state intervention to bring unused land into cultivation will be needed.

State support of farmers

During this century an impressive array of state services and private institutions have been built up to assist farmers outside the homelands. These include:

- farmers' associations and cooperatives
- Land Bank financing for the purchase of land
- agricultural credit to tide farmers over periods of financial embarrassment
- extension services and research institutes
- orderly marketing under the Marketing Act and protection from imports from time to time
- infrastructural development.

Black farmers have had access to virtually none of this. It is true that agricultural production in the homelands is still predominantly unmarketed; it is true that there has been a homeland extension service for a long time; it is true that large-scale agricultural schemes have been initiated in the homelands in the last few years. But the procurement of inputs at the lowest prices, the financing of individual farmers, marketing and infrastructural arrangements - all these hardly exist. If they have proved worthwhile outside the homelands, then suitably adapted versions will yield results inside the homelands, in the form of more efficient production and labour absorption.

Influx control

In the preceding sections, explanations have been suggested as to why, in the context of a very large labour surplus (and one which seems set to increase), the rural areas are not more labour-absorptive than they are. As development proceeds, however, there is another factor to be taken into account: the expected decrease in the share of agricultural employment in total employment. It is not inappropriate, therefore, that there should

have been a drop in agricultural employment relative to labour supply; what is inappropriate is that the drop has been so rapid (Simkins, 1984a: 125) and that it should continue in the light of an expected slow increase in secondary and tertiary employment.

What is the effect of influx control on homeland agriculture? It is worth drawing attention to two relationships:

1. Influx control raises population densities in the homelands. Insofar as people who would not otherwise be present are located in towns and closer settlements there may be little effect on agriculture. On the other hand, Low points out that the allocation and continued cultivation of arable land brings with it 'the right to clear a homestead site and build housing units, as well as a number of communal rights within the chiefdom. These latter include access to and the use of water for washing and drinking, grazing for livestock, grass for thatching, and wood for building and fuel ... Another good acquired by continued cultivation of the household's allocated area is the social security afforded by continued membership of the chiefdom. By retaining land use rights, an indigenous farm-household ensures a means of livelihood in periods of unemployment or old age.' (Low, 1984: 297-298).

Low's argument is that these benefits encourage the retention of land rights with minimal cultivation by many households. This explains the paradoxical coexistence of high densities and reported underutilization of land. Influx control enhances these reasons for land holding insofar as it renders tenure in urban areas insecure; weakly developed urban social services have the same effect. An abolition of influx control would lead numerous households to decide to move, once and for all, to urban areas. This would reduce (but not abolish) the unproductive use of land.

2. If influx control were abolished, urban wages would tend to drop. It is an open question how far they would drop. I have argued elsewhere that regional wage differentials in the case of black workers are considerably smaller than they are often taken to be (Simkins, 1984b), suggesting that greater mobility of existing workers might not have much effect on the regional distribution of employment or on wage patterns. On the other hand, the effect of people not now employed who might otherwise be employed has to be considered.

The importance of a drop in urban wages is that it would increase employment in rural areas, particularly in agriculture as labour allocation decisions change in relation to a changing relative wage. Insofar as influx control has produced a Todaro-type wage gap, aggregate unemployment could also be expected to decline. Improvement in homeland agricultural technology would accentuate the increased relative attractiveness of agricultural work.

FINDINGS OF PAPERS ON COLOURED PEOPLE IN RURAL AREAS PRESENTED TO THE CARNEGIE POVERTY CONFERENCE

What is the state of employment among coloured rural residents? This section is confined to analysis of conditions in the Cape where 90 per cent of such employment is to be found. The 1980 Population Census found 188 480 jobs there. This represents 22 per cent of total coloured

employment; this proportion is very close to 21,1 per cent, the proportion of coloured people living in Cape rural areas. 36,9 per cent of these jobs were non-agricultural, a considerably higher proportion than that found in the case of black people, testifying to a more diverse range of employment opportunities open to coloured rural residents.

The total of 118 840 people found working in agriculture and living in rural areas and 19 900 working in agriculture and living in urban areas on census day in 1980 compares with a 1978 Agricultural Census count of 100 652 regular and 87 971 casual workers (which includes some urban dwellers). Assuming about a quarter of casual workers are working at any one time, the two sets of figures are reasonably consistent, at least at the provincial level.

If one compares total agricultural employment in the Cape as reported by the 1970 and 1980 Population Censuses one finds a growth in employment over the decade of 23,8 per cent (an annual growth rate of 2,16 per cent). This rate of growth is not fully reflected in Agricultural Census figures: regular employment between 1971 and 1978 grew by 12,6 per cent (an annual rate of 1,7 per cent) and casual employment fell between the same dates by 24,9 per cent. While regular employment is the major component of total employment at any instant and the two sources have slightly different coverage, the Population Census yields a somewhat more optimistic picture than the Agricultural Census.

Where the two sources agree is on the statistical regions in which employment has grown faster than average. These are:

02 - Paarl, Kuils River, Somerset West, Stellenbosch, Strand, Wellington
04 - Hankey, Humansdorp, Jubertina, Uniondale
07 - Bredasdorp, Caledon, Heidelberg, Hermanus, Swellendam
08 - Ceres, Montagu, Robertson, Tulbagh, Worcester
10 - Clanwilliam, Vanrhynsdorp, Vredendal
25, 26 - Mafeking, Vryburg, Barkly West, Hartswater, Herbert, Warrenton.

The first five regions are coastal regions and/or close to Cape Town. Arable agriculture predominates. Regions 25 and 26 are areas where agricultural employees are predominantly black, but where coloured employment increased substantially in the 1970's.

The areas of relative decline comprise a wide band stretching from the north-western Cape through the Karoo to the eastern Cape. All the districts investigated by researchers presenting papers to the Carnegie Poverty Conference deal with such areas. Table 3 presents background statistical material to the discussion that follows:

In all four sets of regions casual employment declined; regular employment rose by at most 0,8 per cent per annum. The only counter-evidence of decline comes from the Population Census in the case of George and even these growth rates are below the national average.

A summary of the Carnegie findings follows:

Regions 05, 17, 18. The most depressing picture is that painted by Wentzel of Willowmore and Steytlerville. The districts have farms smaller on average than the Great Karoo (Wentzel, 1984: 4), though consolidation is

taking place (p 6). They suffer from considerable hazards: insect destruction of grazing, drought, overgrazing and poor irrigation (p 2). Stock losses are high (p 6) and a large number of farmers have very low incomes - incomes below official 'viability levels' (p 7). Wentzel discovered cases of inadequate rations, very low wages and appalling treatment by farmers when he interviewed farm labourers. Beaufort West and Oudtshoorn are slightly better. Schmidt found a settlement of unemployed labourers at Nelspoort, about 60 km from Beaufort West, but this seems to have been a temporary effect of the drought (Schmidt, 1984: 39-40). He reports that 'there does not seem to be long-term unemployment in agriculture and many farmers say there is generally a labour shortage' (p 40). A considerable number of workers have to trek great distances and this may be worse now than in earlier decades (pp 40-42). In the case of Oudtshoorn, Buirski reported continuing emigration as part of a pattern going back to at least the turn of the century (Buirski, 1984: 15-19), wages depending on the progressiveness of farmers, but often very low (pp 4-9) and the persistence of traditional labour practices such as the tot system and corporal punishment (pp 8 and 12-15).

Table 3. Changes in employment: selected statistical regions

Carnegie Investigation	Statistical region	All disticts in region	Population Census employment change 1970-1980 (agriculture only)	% Agricultural Census regular employment change 1971-1978	casual employment change 1971-1978
Oudtshoorn	05, 17, 18	Calitzdorp, Ladismith, Oudtshoorn	-1,6	5,3	-7,4
Calitzdorp		Beaufort West, Fraserburg, Laingsburg,			
Beaufort West		Murraysburg, Prince Albert, Victoria West,			
Willowmore		Jansenville, Steytlerville, Willowmore			
Steytlerville					
George	06	George, Knysna, Mossel Bay, Riversdale	17,4	-6,4	-5,5
Hanover	20	Britstown, Colesberg, de Aar, Hanover, Hopetown, Noupoort, Philipstown, Richmond	-2,5	4,8	-24,2

Calitzdorp is probably the best place investigated in this region. Horner and van Wyk sketch a picture of rather small farms with diversified production (ostrich farming, horticulture, crops, sheep and goats and four dairy farms). Incomes are lower than the national average, but higher than in some adjacent areas (Horner and van Wyk, 1984: 29-34). Workers resident on farms are supplemented by casual workers from the town at periods of peak demand for labour (p 18). The ratio of labour to land is higher than

elsewhere in the Little Karoo (p 36). Nonetheless, Horner and van Wyk believe that agriculture in the district may have become dramatically less labour intensive in the 1980's (pp 36 and 38).

Region 06. Levetan observes small farms in George, with a trend towards crop cultivation and reduction of natural pasture (Levetan, 1984: 33). Dairy farming and vegetable production are important (p 34). There is a high ratio of casual to regular workers (p 35), though this is a feature to be found in many Cape districts. There has been rapid urbanization among coloured people in George (p 22) and many casual labourers live in the urban areas of George, Pacaltsdorp, Wilderness and Blanco (p 37). There is an obvious pool of unskilled and underemployed labour; capital intensity has not proceeded very far, but the widespread desire to reduce reliance on casual labour and depend on a core of regular workers is to be found in George (pp 37-38).

Region 20. Total agricultural employment in Hanover is very small (136 coloured people, 205 blacks, 23 whites in 1978). (Archer and Meyer, 1984: 39). Archer and Meyer conclude that growth in unit size has been a major factor in the shedding of farm labour, since maintenance of overheads and handling of sheep are activities with considerable labour economies of scale (pp 41 and 47). They observe that while the demand for unskilled labour is contracting, the demand for 'labour with skills and attributes complementary to the capital inputs, techniques of production and managerial practices associated with larger-scale sheep farming' is increasing (p 48). Confirming Schmidt's findings, they find that the prospects for nomadic sheep-shearers ('the true lumpenproletariat of the Karoo') are bleak (p 49).

In short, there is diversity of conditions in the areas where coloured employment is growing less rapidly than average. A feature common to these areas, but not confined to them is the contraction of casual employment. In the many households relying on a mixture of casual work and state transfers (Archer and Meyer found that in their Hanover urban sample 24 per cent of total income was made up of pensions (p 14); Horner and van Wyk found that in their Calitzdorp urban sample, 34 per cent of households were dependent on pensions as the main source of income (p 59)) and unable to migrate away from a deteriorating employment situation, worsening poverty and increased dependence on the state are likely.

PAST AND PRESENT STATE POLICIES INTENDED TO PRODUCE RURAL UPLIFT AND SOME SUBSTITUTES FOR OR COMPLEMENTS TO THESE POLICIES

For half a century, state policy with respect to improvement of reserve agriculture can be summed up in one word: betterment. Yawitch identifies the following phases in the development of betterment policies:

1. An emphasis on conservation of grazing, soil and water supplies following the report of the 1932 Native Economic Commission. This in turn led to a stress being placed on stock limitation and secondarily on the limitation of ploughing land. A 1939 proclamation made provision for the declaration of 'betterment areas' in which these limitations could be implemented.

2. A policy of encouraging 'progressive farmers' and of eliminating bad ones, by establishing rural villages for people not permitted to live in town but not seriously involved in farming.

3. Demarcation of residential, arable and grazing areas in each locality. These last two developments in the policy were set out in a 1945 memorandum from the Secretary of Native Affairs.

4. A comprehensive plan for the division of the rural population into a landless group and a progressive farming sector (Yawitch, 1981: 9-31).

At each stage, resistance from the reserve population has been encountered. Given the importance of cattle in reserve life and the coincidence of a growing population with the nearly static extent of reserve territory, a policy of culling underlined the inequity of the Land Acts. After 1948, resistance to betterment was associated with resistance to the Bantu Authorities Act. And in the context of a rapidly rising resident reserve population after 1955, alloction of a substantial number of 'economic units' (357 000 in all) became practically impossible; rather, as Yawitch reports, in many betterment areas 'there was a blanket allocation of one or two morgen as long as land lasted, with only a small minority of people - often those with direct access to the tribal authority - who got any more.' (Yawitch, 1981: 42).

It is also worth noting that a homeland agricultural development strategy which emerged in the 1970's - that of development of large estates containing a central farm, commercial farming areas and (possible) small areas for the existing land right holders - continues a well-established line of state policy.

The Tomlinson version has not been realized because the government (at the outset) was not prepared to spend the required money, because industrial decentralization policies have not yielded the results he hoped for and because in 1980 the resident population of the homelands (10,7 million) already exceeded the carrying capacity of 9,5 million appropriate to the degree of development he foresaw. The consequence of this has been widespread landlessness, few economic farming units and (for reasons discussed in the section on the effects of structures, laws and policies which discriminate against black people in rural areas) underutilization of land.

Under such circumstances, are there policies which can help to boost rural employment and solve unemployment? Several have been proposed in recent years:

Increase urban security

The issue here has been discussed in the section on the effects of structures, laws and policies which discriminate against black people in rural areas, but a particular aspect is brought into focus in Sharp's discussion of betterment in the (coloured) Namaqualand reserves. Opposition to betterment in this context can be explained in part by frequent and large fluctuations in the demand for wage labour. In such a situation, individuals or households belonging to the reserves '... faced with a sudden crisis of employment, needed to be able to activate relationships of reciprocity quickly. What was necessary was not the actual possession of

livestock, lands or implements at that given moment, but possession of the right to have these things at some time in the future. In the last analysis, it was the right of community membership which provided the guarantee that a supplicant would be able to reciprocate the help of a benefactor should the tables be turned later ... . Agricultural activities provided a medium of reciprocity which allowed people to seek and give each other assistance without resort to the indignity of begging.' (Sharp, 1984: 17-18).

Reliance on rural networks can only be increased when there is grudging official acceptance of urbanization (as in the case of coloured people) or active official resistance (as in the case of black people). If some people are holding land rights for purely precautionary reasons and if these holdings have opportunity costs, a weakening of the precautionary motive by improving urban residential tenure and social security will assist rural development.

Create a market in reserve land

The most influential advocate of this view is the Ciskei's Swart Commission which recommended that: 'Essentially one additional right needs to be granted to the Tribal Authority namely the right to sell or lease land as an additional or an alternative (of its own choice in each case) to "allotment" in the traditional manner. Sold or leased land could be sold or leased subject to whatever condition the TA chooses by inclusion of "conditions of title" in the purchaser's title deed.' (Government of Ciskei, 1983).

If the market performs its allocative functions correctly land will be concentrated in optimally-sized packages in the hands of those who can use it most efficiently. 'Economic units' are created, finessing the need for political and planned intervention and avoiding the resistance these create. It may also turn out that 'economic units' are smaller than planners have thought. Such is the appeal of the free market system. In practice difficulties will remain, such as survey and registration. Still, one can make another case for privatisation: in situations where land has become scarce all sorts of quasi-market mechanisms arise to deal in what is now a valuable good. An overt market might then have much to commend itself over a shadowy world of influence, nepotism and bribery.

Tapson argues against freehold rights in reserve land while desiring the advantages of market allocation. His criticism of the freehold system is that the rich and powerful will accumulate land quickly, while poor people 'in financial distress will inevitably be induced to realise their main negotiable asset, land; and in the process of solving the crisis, render themselves landless' (Tapson, 1984: 4). This is especially serious in the context of high unemployment.

Tapson's proposal is for a leasehold system, so that permanent alienation is impossible. All land would revert to the public domain with compensation being paid. Homestead plots would then be given to every registered household and the use of arable and grazing land auctioned. The proceeds would be divided up equally beween registered households.

Finally one draws attention to a complementary point made in Section II and one at least as important: the restrictions placed on black people owning and using land outside the homelands restricts the growth of rural employment.

Improve the package of agricultural assistance available to black farmers

Lyster studied the western half of the district of Vulindlela (30 km west of Pietermaritzburg) with a view to establishing a marketing system. The area has been bettered; one result has been the creation of small arable allotments far from homesteads which many do not cultivate, preferring to concentrate their efforts on their homestead plots. There is a high degree of wage employment and consequent limited attention to agriculture. Given the cash incomes and the limited surpluses produced, people have no difficulty in marketing their production locally. Roads are relatively good, but those without private transport have difficulty transporting their inputs by bus. Nonetheless, with the rural areas in mind he recommends:

(a) 'increased road development and maintenance in all areas of KwaZulu

(b) the provision of agricultural marketing infrastructure, in particular, urban retail markets and periodic markets in peri-urban, semi-rural and rural areas

(c) the provision of suitable legislation that does not inhibit the efficient distribution of food by the informal and private sectors

(d) the provision of a more effective extension and information service, that serves the interests of small black farmers

(e) the provision of credit to those black farmers that have indicated their ability to farm successfully'.

(Lyster, 1984: 15).

The strength of Lyster's study is its ability to understand the determinants of farmer behaviour and to discuss policy in the light of national rather than simply KwaZulu's needs. A narrow focus in either respect is likely to lead to serious errors. Work such as this contributes to the goal of devising appropriate assistance fairly allocated between all farmers and in all regions of South Africa.

Construction of rural works by the unemployed

Reynolds has advocated a scheme which simultaneously provides public infrastructure and tackles the problem of unemployment. Such a scheme would exist at both the national and the district level. In each district a list of desirable projects would be compiled. Work would be rewarded on a piece rate basis, the piece rates being calculated from the reasonable number of person-days of labour required to complete the job and a wage rate somewhat below ruling of minimum wages. Individuals register for work and obtain it if:

'- there is an existing worklist capable of accommodating extra labour efficiently

- if 40 people have registered for work within a locality, a work site will be opened in one month

- if 40 people are registered and no new worksite is opened within a month, those registered receive dole for a month or until a worksite is opened. Thereafter they can register again for work

- workseekers agree to complete a work or section of a work.

Work sites are to be found, if worthwhile, within walking distance of work seeker's residence. If not, the State provides transport or a camp site with basic facilities (shelter, potable water, latrine).' (Reynolds, 1984: 30).

Two questions are important in considering a possible South African application of these ideas:

1. Determination of the effective wage rate. It is possible to experiment here depending on local conditions. Since the purpose of the scheme is to provide additional rather than substitute employment, the wage rate must be below that of alternative employment with which the scheme does not want to compete. Such upper bounds on wages may be hard to determine. Also, if ruling wage differentials across age, sex and educational categories reflect only productivity differentials, a piece rate scheme will attract equal proportions of the unemployed in these categories. To the extent that there is discrimination in the existing labour market, the scheme may be particularly attractive to particular groups, eg women. Projects would have to be considered with the probable (and then experienced) mix of labour in mind.

2. Training. All the South African data suggest a heavy concentration of unemployment among the young. In so far as a cause of unemployment is a mismatch between skills supplied and skills demanded in the labour market, a combination of work and training would deal with not only a current unemployment problem but with the future as well. Training could provide marketable skills as well as an orientation towards self employment and the more productive use of available resources (Reynolds, 1984: 31).

Whether these proposals can make a significant contribution to rural development and employment or whether they would be a recipe for a limited dead-end 'make work' scheme would depend on the imagination used in their detailed realization and the vigour of the development apparatus into which they are inserted.

Democratize development

Many investigators have identified the tribal authority system as a dead weight on rural development. Thus Daphne: '.... when development agents offer assistance to an area they are forced to work through a tribal authority, with the strong likelihood that the benefits of this assistance will be appropriated by a rural elite comprising members of the tribal authority and their friends and relatives.' (Daphne, 1984: 2).

And Zulu: 'An analysis of community participation by district indicated that community involvement decreased with an increase in respondents' negative perception of local authorities.' (Zulu, 1984: 6).

What is needed is the development of a fuller range of interest group associations, such as farmers' associations, an injection of technical and managerial expertise into rural areas and a development of what Buthelezi calls 'informal helping networks' (Buthelezi, 1984: 1-3). These range from neighbourhood clusters, to information networks and access to experts, to self-help groups whether aided or unaided. And popular development structures would need to be created or strengthened before the Reynolds proposals could be put into effect.

CONCLUSION

Considerable scope exists for expanding rural employment and reducing unemployment. The questions are:

- How much of our national development effort should go into rural areas?
- How far are we prepared to go in changing or repealing legislation which has deep roots in our history but which constrain rural opportunities?

Both these questions raise the issue of 'sitting on men's backs'; unless we take just and bold steps to dismount, the present choking will not stop and our offers of ease will be mere hypocritical triflings.

REFERENCES

Archer S and Meyer E 1984. Hanover: a profile of poverty on the Eiselen line. Paper No 34 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Budlender D 1984. Mechanisation and labour on white farms: a statistical analysis. Paper No 26 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Buirski P 1984. Poverty in Oudtshoorn: some impressions. Paper No 37 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town, Cape Town.

Buthelezi R 1984. Informal helping networks in a KwaZulu rural area. Paper No 239 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Government of the Republic of Ciskei. Office of the Presidency 1983. Report of the Commission of Inquiry into the economic development of the Republic of Ciskei. (Chairman: N J Swart).

Daphne P 1984. Community organisation through physical programmes: a strategy for rural poverty. Paper No 227 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

De Klerk M 1984. Mechanizing farming: implications for employment, incomes and population distribution. Paper No 27 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Horner D and van Wyk G 1984. Quiet desperation: the poverty of Calitzdorp. Paper No 36 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Levetan L 1984. Structural shifts in the George economy: underemployment and unskilled labour as conditions of impoverishment. Paper No 39 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Low A 1984. Agricultural development in southern Africa: theory, lessons and the food crisis in Africa. Development Southern Africa, 1(3 and 4).

Lundahl M and Wadensjö E 1984. Unequal treatment: a study in the neoclassical theory of discrimination. New York University Press, New York.

Lyster M 1984. The role of agricultural marketing in the alleviation of poverty in the peri-urban areas of KwaZulu. Paper No 236 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Plaatje S T 1982. Native life in South Africa. Ravan Press, Johannesburg (reprint of 1916 edition).

Reynolds N 1984. Citizens, the state and employment: public works as the core of a rural development strategy. Paper No 234 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Roukens de Lange A and van Eeghen P 1984. Employment in South Africa: evaluation and trend analysis. 3 volumes. Report to the National Manpower Commission. Institute for Futures Research, University of Stellenbosch.

Schmidt F 1984. Beaufort West has many windmills: a look at poverty in the town and district of Beaufort West. Paper No 35 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Seleoane M L 1984. Conditions on eight farms in Middelburg: Eastern Transvaal. Paper No 29 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Sharp J 1984. Rural development schemes and the struggle against impoverishment in the Namaqualand reserves. Paper No 69 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Simkins C E W 1984a. A demographic base for the simulation of income distribution and poverty among black South Africans since 1960. Unpublished PhD thesis. University of Natal, Pietermaritzburg.

Simkins C E W 1984b. The economic position of urban Africans. Forthcoming in Acta Juridica.

South Africa (Union) 1960. Commission of enquiry into European occupancy of the rural areas 1956-59. Report. Government Printer, Pretoria.

Tapson D R 1984. Freehold title: Blind alley in the homelands. Paper No 260 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Wentzel W 1984. Hard times in the Karoo: case studies and statistical profiles from five peri-urban residential areas. Paper No 38 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Yawitch J 1981. Betterment: the myth of homeland agriculture. S A Institute of Race Relations. Johannesburg.

Zulu P 1984. Socio-political structures in rural areas and their potential contribution to community developemnt in KwaZulu. Paper No 229 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

5. HEALTH

M T D Savage

INTRODUCTION: IDENTIFYING THE BASIC NEEDS APPROACH TO HEALTH*

In all fields, people are looking at new methods of development. The failure of conventional development strategy to alleviate mass poverty and its related problems has led to the emergence of a basic needs approach to development. This approach focuses on ways in which people's basic needs can be met, through the provision of such core basic needs as defined by the International Labour Organization: food, adequate shelter, clothing, sanitation, safe drinking water, health and education. These basic needs are not independent of one another, together they are themselves the main determinants of health. A strategy for meeting basic needs is by definition a strategy for meeting health needs.

Basic needs theorists in examining the poor state of health of the majority of people in underdeveloped countries attribute the problem largely to the way in which resources are spent on health (eg Burki, 1980), the implication being that what is needed is both a restructuring of health services and a redirection of resources in order to improve people's health. Burki's main criticism of existing health services in poorer countries (and developed ones) is that they emphasize curative and urban health care at the expense of preventive and rural health care services. Further, not only are the services inaccessible to most rural populations, but the little health care that does exist is inappropriate to their health needs since it has either been inherited from colonial times and has not evolved with the development of the countries, or it has been imported largely without adaptation and with inadequate resources from western models (Cole-King, 1981). Conventional medicine with its emphasis on advanced technology, high costs, skilled personnel and drug treatment has largely failed to cope with the diseases so prevalent in the Third World (Kirsch, 1979). The solution proposed by some advocates of a basic needs approach is a community-based health care system which emphasizes preventive health care and focuses on the needs of rural populations (eg Burki, 1980; Djukanovic and Mach, 1975; Streeten, 1980; Hetzel, 1978). For example, Djukanovic and Mach (1975) make a number of recommendations as to how health care should be structured. These recommendations arise out of a basic needs approach and include the following:

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*This introduction draws extensively from the Community Health Research Project report 'Health as a Basic Need' (CHRP, 1983a).

- the need for community involvement in the designing, staffing and functioning of health care centres,
- the importance of preventive rather than curative health measures,
- the need to use primary health workers,
- the need for health and nutrition education,
- the need to recognize the health care needs of women and children,
- the need to use some traditional forms of health care and traditional practitioners,
- the importance of expanding services into the rural areas as well as the urban areas, and
- the need to use simplified forms of health and medical technology.

Such sets of recommendations addressing basic needs in health can be summarized - without great violence to any warring tribes of theorists - by identifying key factors that run through the literature in this area. Four major themes emerge:

1. A primary health care approach

First, most basic needs theorists propose a Primary Health Care (PHC) approach as the critical operational strategy for meeting basic health needs. This PHC concept proposes a delivery system which integrates health care, sanitation, water, nutrition and health education, recognizing the importance of the non-health care components and the synergistic effects of all these interventions on health status. Cole-King's PHC approach to health is useful, in that it attempts to identify some of the difficulties of implementing primary health care programmes by looking at questions such as the extent to which a government is (or is not) committed to a basic needs approach; how to maximize integration between different government sectors and develop appropriate local administrative structures; how to make more effective use of national resources which are already going to health care, for example by reducing expenditure on expensive drugs; how to involve local communities in tasks such as planning, siting, construction and maintenance of health care facilities. Community involvement in health care programmes is something which most basic needs advocates propose as being of crucial importance (Djukanovic and Mach, 1975; Burki, 1980) yet few provide any definition of what is meant by community involvement or how it could be structured. In contrast, Cole-King et al (1981) attempt to look at ways in which the community could be drawn into participating in health programmes through building up the social and communication skills required by community motivators or health promoters so as to organize and stimulate communities to take part in the planning and running of their own programmes. Cole-King et al (1981) suggest that a fairly dense network of smaller health posts rather than a few large health centres would be the most effective way of providing primary health care to the mass of people.

Thereafter, three major recommendations of the basic needs approach (and the primary health care approach) with regard to health are:

- health care services should be extended into the rural areas,
- health care should be primarily preventive rather than curative, and
- communities must participate in health programmes.

If one considers how these recommendations could be implemented, a number of potential problems or blockages can be identified with each of them.

2. Rural health services

In relation to the first recommendation that health services be extended to rural areas, an important question here is: In view of the fact that in the majority of Third World countries most people do not have access to any real political and economic power (Doyal, 1979) where will the pressure come from (in the absence of a redistribution of political and economic power) to ensure that resources are redirected away from urban areas and into the rural areas? Green (1979) demonstrated an awareness of this problem when he motivated for 'mass participation' to be included as a basic need in order for the strategy as a whole to be enforced. Heatley (1979: 10) defines development as '... winning the power to force the system to attend to the needs of the poor majority rather than the wealthy elite...' This is not to say that only once there has been fundamental change can any significant improvements be made in terms of health care. While it is recognised that, in the long term, basic health needs will be met by general improvements in living standards brought about by socio-political changes and more egalitarian income distribution and generation, rapid health benefits (albeit limited ones) can be achieved in the short to medium-term by a combination of interventions which need to be implemented concurrently for greatest effect (Cole-King, 1981).

Another factor to consider in relation to extending services into rural areas is the potential resistance of doctors and other health workers to being sent to work in rural areas. 'If it is unrealistic to imagine that the distribution of health services can be planned to follow patterns that diverge widely from the prevailing socio-political system, it would also be wrong to imagine that health service personnel will not act in similar ways to their peers' (Heller, 1978: 18). Health service plans cannot rely on health workers being more altruistic or subject to controls that differ from those operating in other areas. There are a number of examples of attempts by governments to extend services to rural areas which have been met with strong resistance by the medical profession, Chile being one of them (Heller, 1978). An approach which advocates an extension of health services into rural areas needs to look creatively at ways in which resistance of the medical profession to attempts at redistribution can be overcome.

3. Preventive health care

In relation to the recommendation that the main focus of health care should be preventive rather than curative, there are two issues which come to mind. Firstly, advocates of the basic needs approach often do not provide a clear enough definition of what they mean by preventive health care (just as they do not define adequately what they mean by community-participation

or give concrete examples of how it could be structured). Werner (1980) points out that to be really effective, preventive health care in the form of providing latrines, nutrition centres and so on needs to be accompanied by genuine participation on the part of the people themselves. 'If the building of latrines brings people together and helps them look ahead, if a nutrition centre is built and run by the community and fosters self-reliance, and if agricultural extension, rather than imposing outside technology, encourages internal growth of the people toward more effective understanding and use of their land, their potential and their rights ... then, and only then, do latrines and nutrition centres and so-called extension work begin to deal with the real causes of preventive sickness and death.' (Werner, 1980: 9).

Secondly, with regard to the implementation of preventive health care, an important question that needs to be considered (which is not done sufficiently by the basic needs approach) is why there is greater emphasis on curative health care in the first place. Kirsch (1979) suggests that one of the reasons is a 'political' one: health care development is essentially a political and social process. Health is primarily linked, not to the structure of a health care system, but to socio-economic factors such as low wages, poor housing and so on. Most doctors, because of the relatively privileged class position which they occupy in society do not become involved in 'political issues' such as low wages, a lack of housing, and tend to hold class or group interests that often impede progress toward a more egalitarian distribution of health goods and services. It seems unlikely, in view of factors such as these that there would be any substantial shift in emphasis from curative to preventive health care in the absence of other changes in society at a more general level. Another factor to consider is the counter resistance of doctors and other members of the medical profession towards measures aimed at bringing equity and democratization to a health system once change has taken place in favour of a more egalitarian society. Attempts in Chile under the Allende administration (1970-1973) to deploy medical resources towards preventive services were resisted by the majority of the medical profession who went on strike and largely refused to cooperate. After the overthrow of Allende, the Chilean Medical Association sent a telegram of support to the new junta, and those doctors who had supported the redistributive medical policies were regarded as political opponents of the new regime (Heller, 1978).

4. Community participation

Finally, in relation to the recommendation that health programmes should be community-based (ie that people themselves have a certain amount of control over the health care which they receive): community participation is difficult to implement in a system which does not allow for participation on a broader level. This again brings us to the conclusion that for a basic needs approach to effectively be implemented, it needs to be accompanied by a redistribution of power on a more equal basis.

GENERIC PROBLEMS WITH THE BASIC NEEDS APPROACH TO HEALTH

The basic needs approach to health, and to rural health, identifies many obstacles to the provision of efficient and accessible health care. There are however several critical problems attached to the approach. Utilizing it one too easily ends up with 'shopping lists' of items (a primary health care system, preventative medicine, village health care workers, community participation and so on) that stress the weaknesses of existing health care systems without untangling the reasons for these weaknesses, or providing guidelines as to how these weaknesses should be overcome.

Underlying this difficulty are some theoretical and methodological problems with the basic needs approach itself. Several of these problems are addressed by Streeten (1984) who raises such issues as: Who is to determine what is a basic need and on what basis? Should basic needs be established against physiological criteria, psychological criteria or against criteria set by public authorities or by political groups? Do basic needs refer to the conditions, necessary for a full and healthy life or to a specific bundle of goods and services that may provide this? Streeten's questions about the basic needs approach lead him to addressing a curious policy neutrality embedded in the approach and to suggest that the approach does not circumvent a need for definite decisions having to be made in the broad arena of policy choices. In this arena decisions have to be made about such issues as to whether humanitarianism or productivity is an overriding concern in a society and about the relative priorities assigned to either poverty eradication or the reduction of income inequalities.

A number of other important weaknesses in the basic needs approach have been set out by commentators. These include: its critical failure to take sufficient account of political, economic and social factors, or to give sufficient emphasis to the role that these factors play in determining people's access to basic needs; its overemphasis on individual need and underemphasis on class and group differences; and its use of concepts such as 'community involvement' and 'preventative health care' without adequate definition (CHRP, 1983; Ghai, 1978; Green, 1978; Rew, 1978).

In my view it should be admitted that the basic needs approach to health lacks scientific rigour or a solid theoretical base. This has led Navarro to refer to the approach as being 'rich in description but scarce in analysis' (1977: 53). However, criticisms of the approach alert one to problems that are associated with it rather than suggest that the approach should be abandoned as a starting point. As a point of departure there is much to commend the approach, particularly as it clearly draws attention to important building blocks in any effort to create an equitable and effective health service.

The greatest danger surrounding the basic needs approach to health is that it can be used to initiate a variety of uncoordinated community based health services which have no significant impact on overall patterns of disease and health. South Africa has had several remarkable experiments in rural community health care: the Valley Trust, the Pholela Centre in Natal, the programme to combat blindness in Venda. Such experiments have had an impact on local communities but none of them have changed national disease patterns or have led to a redistribution of resources and, it has been argued, their very existence may be used to legitimate existing inequalities.

A second danger surrounding the basic needs approach is associated with the previous danger. Health care can be improved and extended even in the absence of more fundamental change but the constraints on the extent of this improvement must be recognized. The basic needs approach however, may well lead to an underemphasis on the necessity for a more equitable distribution of not only health services but of political and economic power, and an overemphasis on the erection of elaborate health care structures. It thus faces the danger of trapping itself into focusing on uncoordinated reforms instead of using the starting points of its analysis to reach into the roots of the problems it is concerned with. In short, it faces the danger of not sufficiently recognizing that health care by itself does not produce good health. For, 'As long as social injustice is not reduced no amount of medicine or medical work can stem the ever increasing tide of illness, for no amount of drugs and antibiotics can take the place of three square meals a day, and the normal means of getting three square meals a day is a just wage.' (Wells, 1978: 24).

Against this background the basic needs approach to rural health care in South Africa can be examined. For this purpose the framework of Dujanovic and Mach (1975) will be used to examine some of the obstacles to be overcome in providing basic health needs in rural areas. This framework classifies these obstacles into four major categories: Approaches; Resources; Structure of services; and Technical weaknesses.

BASIC NEEDS APPROACH TO HEALTH CARE IN SOUTH AFRICA

1. Problems of approach

The first set of obstacles to be met in dealing with South Africa's rural health needs are those associated with formulating and implementing an adequate health care policy at a national level. Bluntly put, South Africa lacks an adequate and acceptable national health care policy. The consequences of this are directly reflected in rural health care statistics.

At present the broad approach to the provision of health services is contained in the National Health Services Facilities Plan, announced by the Minister of Health in November 1980. In this announcement the Minister of Health outlined six levels of service in the structure. These were the provision of basic subsistence needs; health education; primary health care; community hospitals; the 'original' hospital; and the academic hospital. In addition he noted four requirements for a basic level of minimum health: safe drinking water; sufficient food for human existence; sewage and waste disposal; and adequate housing.

In the 1980 plan, provision for rural health care services is provided for specifically. A cornerstone of this aspect of the plan is the provision of primary health care in community health centres. It is important to note that that plan excludes health services in the homelands from its blueprints.

While the plan is a considerable step forward it is neither adequately implemented, nor does it address several basic difficulties such as the integration of health services and the allocation and distribution of health resources and personnel. The deficits of the plan are particularly marked when considering its impact on rural health.

This is not the first time that such a plan has been formulated in this country and in view of the significance of such plans an important historical element should be mentioned.

It is little known that the Anglo-Boer War of 1899-1902 touched off the personal health movement in Britain which eventually led to the creation of the British National Health Service in 1948. Titmuss, the great analyst of British social welfare, has written of the public concern that was aroused at the end of the South African war, 'by the facts that were published about sickness and mortality among the (British) troops and by a report from the Inspector-General of Recruiting which spoke of "the gradual deterioration of the physique of the working classes from whom the bulk of recruits must always be drawn".' (1958: 90). This 1904 report came as a shock and stimulated a flow of Commissions of Inquiry into British health care that in turn led to the establishment in 1906 of school medical services, school feeding of children in elementary schools and campaigns to reduce infant mortality. All these elements, and others, stemmed directly from the South African war and ultimately culminated in the 1948 National Health Service. The critical impetus that underlay these moves was the recognition that there were severe limits to which any individual could determine his or her own health and the consequent acceptance of a collective responsibility for the provision of good health.

The unwitting part that South Africa played in the formation of the British National Health Service has an ironic counterpoint. South Africa by 1944 had formulated a more advanced and comprehensive plan than the British National Health Service plan, one that had been drawn up and begun to be implemented prior to the emergence of the British National Health Service. The Gluckman Commission of Inquiry into the National Health Services, which reported in 1944, equalled and in important aspects outstripped the 1948 British National Health Service plan in its recommendations. The Gluckman Commission suggested fundamental alterations to the South African Health Care system and particularly advocated the establishment of a series of government health centres and shift of resources to health education and preventive medicine. As a result of its recommendations some health centres were instituted, such as the successful Pholela Centre in Natal, but, for reasons documented elsewhere (CHRP, 1983) such centres were never properly established.

The historical record suggests that South Africa having helped stimulate the emergence of a British National Health Service, rejected the chance to establish a more pioneering system of health care in the 1940's. A magic moment slipped by and an opportunity was lost to establish a well devised rural health care system that would have had a dramatic impact on the pattern of rural health forty years later in the 1980's.

Broad approaches to health care embodied in health plans are important for they establish a framework for health services and help identify priorities. The Health Services Facilities Plan, drawn up by the National Health Policy Council established by the Health Act of 1977, lays out the framework in which the state has attempted to regulate and coordinate South Africa's health needs.

The chief deficit of the plan concerns the manner in which it relates to macro-political policy, in that it specifically excludes planning for the health care of all the population residing in the homelands and restricts

its responsibility to those South Africans outside of homelands.

Since 1950 there has been a massive shift of the African population toward the homelands and away from white rural areas.

Table 1. Domestic African population distribution 1950-1980

	1950	1960	1970	1980
% in urban areas outside of homelands	25,4	29,6	28,1	26,7
% in rural 'white' areas	34,9	31,3	24,5	20,6
% in homelands	39,7	39,2	47,4	52,7
Population size	8,669,400	11,506,900	15,468,1200	20,972,300

Source: Calculated from Simkins (1983): Table 1, pp 53-56.

Notes:
1. Before boundary changes excluding Edenvale, Umlazi and Kwamashu and excluding Africans born outside of 1910 borders of South Africa.
2. Before inclusion of 'black spots'.

This shift, set out in Table 1, has several profound consequences for rural and health care. First, it has meant that health care resources in the homelands are under considerable pressure. Three sets of ratios demonstrate this:

- Doctor:patient. In 1976 there were 482 doctors in the homelands which had a (low) estimated population of 8,4 million, giving an overall doctor-patient ratio of 1:17 400. This overall ratio worsens when one considers individual homelands which have doctor-patient ratios of 1:19 000 in the Transkei (1981); 1:17 500 in KwaZulu (1982); 1:20 000 in Gazankulu (1976); 1:30 000 in Lebowa (1982), and 1:116 000 in QwaQwa (1982).

- Population:clinic. While Pillay (1984) cites figures showing an improvement over the period 1973-1981 of population-clinic ratios in homelands, only three homelands (Ciskei, Venda and Kangwane) meet the World Health Organization norm of a clinic for every 10 000 population; with KwaZulu having a population-clinic ratio of 1:26 000 (1981) and QwaQwa a ratio of 1:16 000 (1981).

- Hospital bed:population. These likewise indicate considerable pressure on health resources in homelands, with an overall ratio in the homelands of one bed to every 340 persons, as contrasted to national average of 1:180. This ratio overall worsened over the 1973-1981 period (Pillay, 1984: 17).

This massive shift of population to the homelands has put their health services under considerable strain and conversely potentially relieves the pressures on South African non-homeland services. However, the National Health Services Plan specifically notes that the latter is not always the case, for it comments, '... a major complicating factor is the continuous influx of patients from the self governing and independent states to the white areas of RSA for health services. In Natal this has reached major proportions.' (de Beer et al, 1983: 268).

Secondly, the growth of the size of the population in homelands (resulting chiefly from both population redistribution and natural increase) has been associated with trapping ill-health and disease into the rural areas. Ill and injured migrant workers are frequently 'returned' to the homelands; potential migrant workers are screened to ensure that the physically unhealthy are not employed. In addition those unable to enter the labour market - children, the elderly and the handicapped - seldom have any legal option but to remain in the homelands. Other pressures are placed on several sections of the population to reside in the homelands, as pensions, disability grants and unemployment insurance frequently can only be collected there. In sum, macro-political decisions are resulting in rural health services in homelands having to provide health services to those trapped within them.

The exclusion of the homelands from the National Health Services Facilities Plan is associated with the restructuring of health services on an overtly political basis that neither encourages coordinated and nationwide health planning nor acceptable action against the roots of sickness and ill health.

A further significant issue in terms of the broad approach to health care in South Africa is the economic ideology upon which health care and health planning rest. There are marked signs in the health apparatus of South Africa of a tension between conflicting economic ideologies, a tension that has an unavoidable impact on rural health care planning. This tension revolves around the desirable mix between the private and the public sectors in the general provision of health care. A senior health care official is quoted as saying: 'Health authorities must not be seen to be an infinite resource of health facilities and medical care. More people should be able to make use of private health services as their economic circumstances improve. Not only will this promote self-reliance because people will not receive free health service, but these people's dependence on the state will also decrease. People attach to that which costs money more than to that which is freely available.' (de Beer et al, 1983: 267).

A more marked version of such a position has been advocated by some private groups who argue in favour of 'Abandoning the position that the government is responsible for most demographic and economic investment such as health care, higher education, social pensions, housing and infrastructure. The private sector is able to handle most of these functions in a competitive free market environment...' (1820 Foundation, 1985).

The logic underpinning of such positions is that a privatization of health care services and facilities for those who are able to pay for health and medical services is both desirable in itself and would release resources which could be channelled into other state activities, particularly into providing health care to the poor.

In addition it is being made clear that the state health apparatus will not enter into competition with the private health sector and, that health centres for instance, are only intended to provide a service to isolated regions and are not meant to compete with private practitioners (de Beer et al, 1983: 306). At the same time a new fee structure has been introduced at all hospitals, including day hospitals, which is making health charges in the state sector equal to, or greater than those in the private sector (Frankish, 1985). A basic fee structure for clinics and hospitals also exists in such areas as the Ciskei, which it is reported has resulted in some patients being there when they do not have the money (CHRP, 1983b).

The extent of the movement toward increased privatization, and the size of financial savings (if any) resulting from this movement is unclear. It is also unclear whether privatization is associated with any significant movement toward redistribution of state fiscal resources toward the provision of health care for the poor. However, given the current low economic growth and the pressure on state resources, redistributive moves are unlikely to be marked. Indeed such evidence as exists on resource allocation suggests that little such redistribution is taking place.

In sum, in terms of the broad approaches to meeting rural health needs, the inadequacies of the existing health plan, which excludes the majority of the black population from its scope, together with macro-political policies which have resulted in most of this population being trapped in rural areas having inadequate health facilities, make the task of meeting basic health needs an exceedingly difficult, if not impossible, one. It is against this background that the critically important debate about the relative responsibilities of the private and public sectors in terms of health is taking place. This debate ultimately involves a decision as to whether there should be a privatization of the profits from health care but a socialization of its major costs.

2. Resources

The second major set of problems and blockages to be overcome in providing adequate rural health care concern the resources allocated to health. Again it is important to examine the resources made available to the total health system and not to examine in isolation rural resources.

It is clear that the key resources - finance and personnel - are inadequate throughout the system and that the shortage of resources affects the large, needier rural population the most.

Three sets of measures, which economically are not strictly comparable sets of measures, all indicate a declining proportion of central government finance being allocated to health. This decline is particularly marked since 1960. McGrath provides data (Table 2) showing that government expenditure on health and hospitals declined from 13 per cent of total expenditure in 1949/50, to seven per cent in 1975/76.

Table 2. The composition of gross current government expenditure in South Africa 1949/50 - 1975/76 (percentages)

	1949/50	1959/60	1969/70	1975/76
Agricultural services and subsidies	6	7	7	6
Education	18	19	19	19
Health and hospitals	13	13	8	7
Transfer payments	8	10	7	7
Other	9	10	7	6
Total	54	59	48	45

Source: Simkins, 1984 - recalculated from McGrath.

A similar downward trend in health expenditure is shown by Ina Brand (1984) in an examination of shares of total budget expenditure on health, with 13 per cent of the budget going to health in 1960 and declining to nine per cent in 1980 (Table 3).

Table 3. Expenditure (estimate) as percentage of total budget

	1960	1970	1980
Health	13%	12%	9%
Welfare and Pensions	13%	9%	10%
Education	13%	17%	11%

Source: Brand, 1984: 4.

A final measure of the downward trend in central government expenditure on health is provided in a recent Mercabank report (Lombard, 1984). This report indicates that relatively more government funds have flowed to defence and housing over the period 1971/72 to 1981/82 at the expense of health and education. The percentage of funds spent on health dropped from 14 per cent in 1971/2, to nine per cent in 1981/82 (Figure 1).

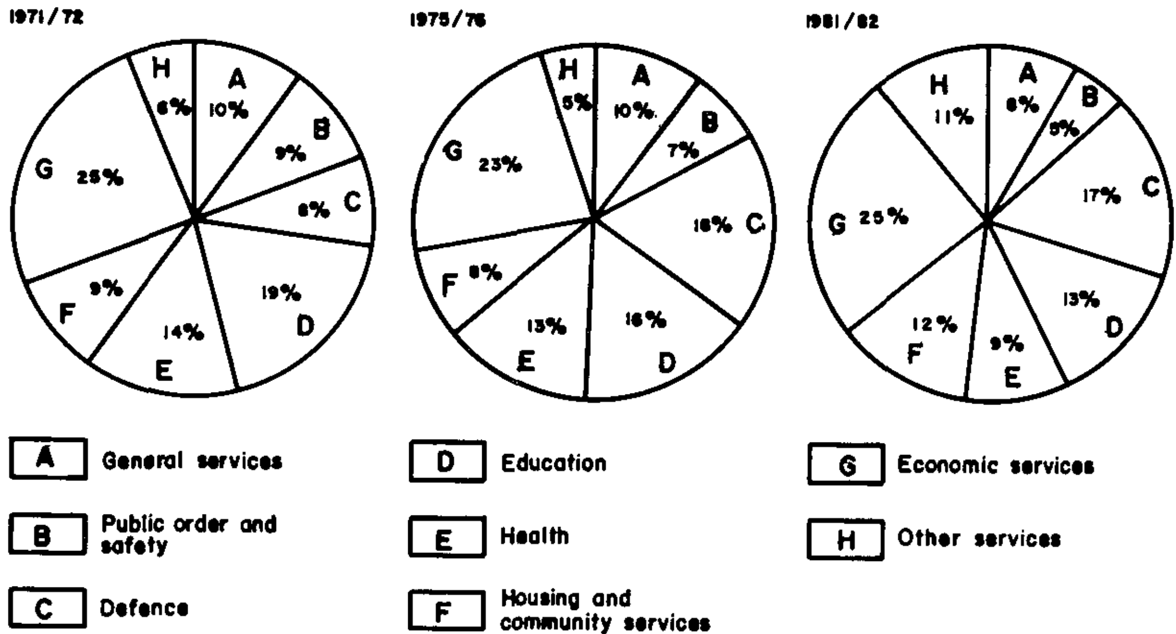

Figure 1. Functional classification of current and capital expenditure on goods and services by general government, 1971/72, 1975/76, 1981/82

Figures indicating a declining proportion of central government expenditure on health must be viewed against general welfare expenditure, for expenditures on such basic needs as education, sanitation and shelter may have a more marked impact on health than do direct expenditures on the health services themselves.

Again the available evidence is not cheerful and indications are that there has been a steady percentage decline in per capita expenditure in all welfare related expenditure since 1949 (Simkins, 1984: 30), despite some severely limited redistribution in per capita welfare expenditure toward the black population.

The overall picture of health expenditure is made more bleak when the homelands are taken into consideration. The bulk of the budgets for every homeland derive from Pretoria, and funding for homeland health services derives chiefly from a variety of central government sources. No homeland is obtaining adequate funds to support a health service that meets basic health needs, and the head of the Medical Association of South Africa has depicted the services of the 'independent homelands' as being 'either in a state of collapse, or totally inadequate'.

The second set of obstacles to providing basic rural health needs concerns the supply and utilization of the human resources of health care professionals. In this area there is both an absolute shortage of all types of health care professionals (doctors, nurses, pharmacists, dentists, health educators and so forth) in the rural areas, as well as a maldistribution of such professionals throughout the country that exacerbates the inadequacies of the rural health care system.

The absolute shortages of health care professionals in rural areas are clearly illustrated in homelands such as Lebowa, whose Minister of Health has pointed out that between July and December 1980 only 40 per cent of hospital medical posts were filled with full time doctors, he also noted that 'in some cases (Lebowa) hospitals have been without regular or full time medical offices for more than four years' (de Beer, 1984: 5a). Lebowa also only has one dentist serving a population of 1,5 million. Further, throughout all the homelands in 1975 there were 57 pharmacists, out of a total of 5 041 pharmacists throughout South Africa (Pillay, 1984: 9).

The maldistribution of health care personnel is most starkly illustrated by the distribution of doctors in South Africa: 65 per cent practice in metropolitan areas, 11 per cent in cities, six per cent in small towns and only five per cent in all rural areas (Pillay, 1984: 5).

The organization of South African medical resources continues to provide one of the clearest illustrations of Hart's law of inverse medical care: 'The availability of good medical care tends to vary inversely with the need of the population served.' (Hart, 1975).

As a simple increase in the number of health professionals is unlikely to alter this law of inverse care, in my view attention should be given to such ideas as requiring newly qualifying medical personnel to do two compulsory years of rural service and to reserving a set number of places in training institutions for those undertaking to work in rural areas (see Gear, 1983 and Mechanic, 1974: 271-277).

In turning more briefly to the final two sets of obstacles to be overcome in providing basic health needs in rural areas, many of the trends set out above are again found to be present in the structure and technical characteristics of rural health care services.

3. Structure of services

The obvious and immediate obstacle to providing an adequate structure of rural health care is the often 'confused jumble' of health service authorities providing duplicating and overlapping services. Natal and KwaZulu illustrate this with health services provided some times by the central state, sometimes by the KwaZulu government, sometimes by local authorities, sometimes by the Department of Internal Affairs. The Buthelezi Commission report referred to health services in the area as being characterized by overlap, duplication, gaps and wastage of scarce resources.

On a national level the inadequacies of the administrative structure have been acknowledged by the Department of Health when commenting on the outbreak of cholera, which first broke out in South Africa in 1980. The Department stated 'Coordinated action requires coordinated authority. This was not always easy to ensure in the face of at least five health authorities in the afflicted area.' (Zwi, 1984: 13).

There is a clear case to rationalize and reorganize the structure of health services but the indications that this may be done are not hopeful. The Nursing Amendment Act of 1982 in fact pointed in a different direction by forcing homeland nurses out of the South African Nursing Council and the

South African Nursing Association. This has led to the creation of seven or eight nursing associations and the establishment of a League of Nursing Associations of South Africa to coordinate the work of these new associations.

As Zwi points out, what has occurred is that 'there are no longer three tiers of health authorities (state, province and local authorities) but there are also an additional eight health authorities - the homeland health authorities. All of the homelands except for Kangwane and Kwandebele had their own departments of health and welfare by 1982.' (1984: 10).

It is not only at the national level that a restructuring of health services appears to be required but also at the regional level. Thus for instance, a careful investigation into several aspects of Ciskei health services concluded that many of these services are 'structured in accordance with outdated approaches; TB cases have to be hospitalized, for example, so more resources are allocated to TB beds than to staff who could coordinate ambulatory care. (Community Health Research Project, 1983b: 52). This report also indicates that many of the Ciskei health services are geographically inaccessible to large sections of the population, poorly distributed within the region and contain within them an interesting contradiction. This contradiction is that at an administrative level of health services and among those most removed from patient contact there is a marked inclination toward the extension of hospitals and curative health care, whereas lower level health professionals and certain other medical personnel favour the development of a more appropriate comprehensive health care system - based on preventive, promotive, curative, social and environmental services (1983: 41). Such a tension, in the face of scarce resources, has an immediate impact on the development of an adequate structure for providing rural health care and places innovative efforts to deal with health problems (such as the provision of village health workers) under strain.

At both a national and a local rural level there is a clear need to create an appropriate structure for health care systems that avoid overlaps, duplication and gaps.

4. Technical weaknesses

A final set of obstacles to be met in dealing with South Africa's rural health needs concerns the technical weaknesses surrounding the services in rural areas.

At one level many of these weaknesses are outside of the direct control of health administrators and health care personnel. Research clearly indicates, for instance, that inadequately developed transport networks, poor sanitation and unsafe water supplies negatively influence rural health. At the most, existing health care personnel and existing health services can only make a marginal impact on such factors, through providing such items as transport to clinics or hospitals, or dealing with the sources of water contamination. Thus many of the technological obstacles severely restraining efforts to meet basic rural health needs lie outside of the direct scope of the health services but nevertheless have a very considerable impact on them.

One immediate area of technical weaknesses that is amenable to some action by health professionals concerns the gathering of statistical material. Such material is vital for adequate planning and to enable objective assessments of the quality and the effect of rural health services. The recent Community Health Research Project after studying the Paarl area and the Ciskei noted that, 'statistics in these areas were either unreliable or non-existent; for example, there is no information on the infant mortality rate, one of the most fundamental health parameters, for Africans in the Paarl Divisional Area or in the Ciskei.... While good information was generally available on the physical aspects of the health services, eg the number of hospitals, clinics, etc little information was available on objective measures of quality such as expenditure, over-crowding...' (CHRP, 1983c).

Without adequate statistical material it is both difficult to see how rural health trends can be monitored in a satisfactory way, or to properly examine the cost affectiveness and the quality of rural health care.

CONCLUSION

It remains a salutory fact that general improvements in health status in rural areas will not be brought about without fundamental improvements in living and working conditions of the black South African population. The causative factors in improving rural health are largely non-medical, as modern medicine is technically ineffective in improving the health of large populations. As Hartwell puts it: 'The lesson of history? For most of history medical care was largely ineffective or even harmful, and whatever comfort it gave to individuals, and whatever its role in promoting increasing medical knowledge, it was irrelevant in the determination of the health of social aggregates. Medical care was important socially and intellectually, relatively unimportant economically, and unimportant for vital statistics.' (Archer, 1979: 185).

Among the most likely significant inputs that would improve rural health status are increased urban employment opportunities, better urban wage structures and other general efforts to meet people's basic needs in the areas of food, housing and education. Perhaps ironically, if one wishes to improve rural health status in South Africa one must not focus primarily, or even chiefly, on rural health care systems.

Nevertheless, health care in rural areas can be improved and extended, and also have some beneficial impacts on morbidity and mortality rates. But the chief determinants of these rates will remain non-medical.

What is required in rural areas is an approach that integrates the development of health care services into a broad spectrum of development interventions. However, it should be stressed that, 'a given area like the Ciskei is not just a "black box" into which things can be put to solve shortcomings. The Ciskei, both within its borders and in its relation to the rest of South Africa, consists of different groups in different power relations to one another as part of a dynamic historical process. It is this process which ... needs to be addressed if health is to be improved.' (CHRP, 1983b: 53).

Focusing specifically on the basic needs approach to rural health it is clear that there are a variety of actions able to be taken to improve existing rural health care systems. It is clear that many of the main obstacles to improving these systems lie in the lack of commitment at a national level to a basic needs approach. Some of the major blockages to satisfying basic rural health care needs at this national level have been identified in this paper. These include the lack of a clearly formulated health care policy in South Africa; the lack of a comprehensive health policy for the total geographical area; the lack of coordination between existing health service authorities; and maldistribution of financial and human resources in the area of health care.

Even within existing constraints health care planners can address such obstacles to providing adequate rural health care systems and it is likely that by addressing them they will stimulate the growth of an already encouraging number of pioneering efforts in the rural areas of South Africa aimed at improving health.

REFERENCES

Andersson N and Marks S 1985. The state, class and the allocation of health resources. Unpublished paper presented to International Conference on 'The political economy of health and disease in Africa and Latin America', Mexico.

Archer S 1979. Allocating and financing health care. In: Westcott G and Wilson F (editors) Economics of health in South Africa Volume 1. Ravan Press, Johannesburg.

Brand I 1984. Public expenditure in the RSA on health, welfare and education during 1960-1, 1970-1 and 1980-1. Paper No 128 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Burki S J 1980. Sectoral priorities for meeting basic needs. Poverty and Basic Needs. World Bank.

CHRP (Community Health Research Project) 1983a. Health as a basic need: A review of basic needs theory. Unpublished paper.

CHRP (Community Health Research Project) 1983b. Health and health services in the Ciskei. SALDRU (Working Paper No 54), Cape Town.

CHRP (Community Health Research Project) 1983c. Final report to CSIR Programme for Human Needs, Resources and the Environment.

Cole-King S 1981. Primary health care and the role of foreign aid. Institute of Development Studies (University of Sussex) Discussion Paper No 123.

De Beer C 1984. The South African disease: Apartheid, health and health services. SA Research Service, Yeoville.

De Beer C, Myrdal S, Thompson E and Zwi A 1983. Health. In: South African Review I. Ravan Press, Johannesburg.

Djukanovic V and Mach E P 1975. Alternative approaches to meeting basic health needs in developing countries. Joint UNICEF/WHO project, WHO, Geneva.

Doyal L 1979. The political economy of health. Pluta Press, London.

Frankish J and Zwarenstein M 1985. Raising the price of provincial health services: unwise and unfair. Paper presented at the National Medical Dental Association, 1985, Johannesburg.

Gear J 1983. Bridging the health gap. Financial Mail, 29 April.

Ghai D 1978. Basic needs and its critics. IDS Bulletin 9(4).

Green R H 1978. Basic human needs: Concept or slogan, synthesis or smokescreen? IDS Bulletin 9(4).

Green R H 1979. Basic human needs as a strategic focus. In: Cole and Lucas (editors) Models, planning and basic needs. Springer, New York.

Hart J T 1975. The inverse health care law. In: Cox C and Mead A (editors) A sociology of medical practice. Collier-Macmillan, London.

Heatley R 1979. Poverty and power: The case for a political approach to development and its implications for action in the West. Zed Press, London.

Heller T 1978. The limits to health care planning. IDS Bulletin 9 (4).

Hetzel B S (editor) 1978. Basic health care in developing countries. An epidemiological perspective. Oxford University Press, Oxford.

Kirsch R 1979. Health needs in southern Africa. In: Westcott G and Wilson F (editors) Perspectives on the health system. Ravan Press, Johannesburg.

Lombard J A (editor) 1984. Focus on key economic issues: The tax burden. Report 35, October. Mercabank, Johannesburg.

Mechanic D 1974. Politics, medicine and social science. John Wiley, New York.

Navarro V 1977. The underdevelopment of health or the health of underdevelopment. In: Heller T and Elliot C (editors) Health care and society. Monographs in development studies 2.

Pillay P N 1984. The distribution of medical manpower and health care facilities in South Africa. Paper No 167 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Rew A 1978. Political demands and essential guarantees. IDS Bulletin 9(4).

Simkins C 1983. Four essays on the past, present and possible future of the distribution of the black population of South Africa. SALDRU, Cape Town.

Simkins C 1984. Public expenditure and the poor: Political and economic constraints on policy choices up to the year 2000. Paper No 253 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Streeten P 1984. Basic needs: Some unsettled questions. Paper No 8 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Titmuss R 1958. Essays on the welfare state. Unwin University Books, London.

Wells L G 1974. Health, healing and society. Ravan Press, Johannesburg.

Werner D 1980. Article quoted in Frontline on Health No 2.

Zwi A 1984. Piecing together health in the homelands. Paper No 187 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

6. RURAL BLACKS' PERCEPTIONS OF BASIC NEED FULFILMENT

Valerie Møller

INTRODUCTION

In more recent times the basic needs approach to development has gained in popularity. It is without doubt that basic needs strategies have emerged as a response to the disillusionment with the poor track record of the more conventional development programmes. Basic needs aim at eliminating poverty and promoting the development of underprivileged areas. While the more conventional development approaches tend to focus more exclusively on economic growth, the basic needs strategy concentrates on people and their needs. At the same time the basic needs approach is also compatible with a number of other popular development concepts such as economic growth with equity, growth with poverty alleviation, and redistribution of resources with growth (cf Lisk, 1977; Streeten, 1977).

The basic needs strategy

In essence the basic needs strategy seeks to fulfil the most basic needs of the people in a relatively short period of time. This aim presents itself as a straightforward and simple one; therein lies the appeal of basic needs. The sense of urgency with which development hurdles are tackled also contributes to the popularity of the basic needs approach among practitioners and planners alike. The basic needs approach embraces the idea of tangible shorter-term development targets which upon achievement will pave the way for longer-term ones which should sustain the momentum of economic growth and social development.

However, simple characterizations of the basic needs approach may be deceptively misleading. There are a number of unresolved and contentious issues which should be mentioned in passing. Most definitions of basic needs make reference to these issues.

Keeton (1984: 279) maintains that 'no distinct theory or set of policies can be isolated and defined as the basic needs approach. Instead, the approach represents a broad outlook on development, which focuses on combatting poverty and raising the productivity of the poorest sections of the population'. Tollman (1984: 1) defines the basic needs approach to development more precisely as an economic programme which 'has as its aim the provision of a particular bundle of goods - basic needs (BN) goods - to the population lacking these; and as its intended outcome the eradication of absolute poverty, as measured by improvement in quantifiable indices

such as life-expectancy'. This brings us to the difficult question of how to define the contents of the basic needs 'bundle'.

The minimum bundle of goods referred to by Tollman typically includes adequate food, shelter and clothing, access to health and education services, and clean water and sanitation. By most standards these items are deemed essential and constitute core basic needs. The responsibility for providing basic needs goods and services is divided between the public and the private sector. The International Labour Organization also defines labour force participation as a basic need. Safety and job security, the opportunity to save for the future, provision for leisure needs, and political participation are other items which are variously thrown into the bundle for good measure. Some would also stipulate that participation in the definition of basic needs is a basic need in itself. This last viewpoint suggests that basic needs represent a basic human right.

A similarly contentious issue is the level of supply of basic goods which can be considered adequate. Criteria for determining these levels are variously based on objective expert opinion, the foresight of the authorities in charge, collective groups, or the individual consumers of these goods (Streeten, 1984; cf also Drewnowski, 1974).

Narrowly defined, then, the basic needs approach specifies the minimum bundle of goods and services which is required for a basic existence. Basic needs satisfaction is considered a necessary but not sufficient condition for economic development (Keeton, 1984: 292). The production and supply of basic needs goods may be seen to represent but a first step toward development. A broader view of the basic needs strategy would not consider basic needs satisfaction as an end in itself but merely as the instrument for developing human resources, ie as the condition for a full, long and healthy life (cf Streeten, 1984). Here, one detects the idea that the satisfaction of basic, predominantly physical needs, is also conducive to the achievement of higher-order life satisfaction.

A further distinction might be made between the more conservative and radical conceptions of basic needs. The more conservative approach proposes that basic needs satisfaction can be achieved within the existing socio-political structure, while the more radical school of thought requires the revision of the existing structural framework as a requisite to achieving basic needs.

The above issues are mentioned briefly because they have a bearing on the discussion to follow. In particular, we shall single out three points which are particularly pertinent.

Participation in the definition of basic needs

By and large the basic needs approach is synunymous with a grass-roots approach to development, in which the needs of individual households and communities are of paramount importance. Popular participation in development is the cornerstone of the basic needs approach. Popular participation might include the definition of

- basic needs items,
- reasonable levels of satisfaction of these basic needs items, and
- priorities within the more comprehensive bundle of basic needs.

As regards the definition of basic needs items, the core basic needs are thought to represent universal needs. However, regional variations may exist in the need for other essential items.

Basic needs is a dynamic concept: One can expect the minimally acceptable levels of consumption to shift over time. Therefore, the required level of basic need satisfaction must be subject to revision from time to time.

Priorities in basic needs may occur in those cases where resources will not permit the simultaneous production and supply of all basic needs. It should be noted, however, that trade-offs between core basic needs may be considered untenable precisely because these needs constitute the foundation of a decent human existence. However, communities might be invited to identify the priorities of the items to be supplied by the public sector.

The black rural population as a target group

If a basic needs development strategy is to be successful, it must be formulated in such a way as to ensure that the fruits of the development effort actually reach those who are in need and do so in a form that satisfies the need. This is the expert opinion put forward by Nattrass (1982: 3) who proposes that 'target' areas be isolated and 'target' groups which are exceptionally deprived be identified within these areas. In this connection Streeten (1984) prefers to speak of 'vulnerable' groups.

It is commonly agreed that one such target group, or group at risk is the rural sector of the population which has tended to be neglected by conventional development strategies. It is a known fact that a very significant proportion of the poor in South Africa comprises black families living in the rural areas, including the self-governing 'homelands' and the independent states.[1] Therefore, it is argued (cf Tollman, 1984; Ligthelm and Coetzee, 1984) that a basic needs strategy for the rural areas is required to offset the urban bias of conventional development programmes.

This paper focuses on the basic needs satisfaction of rural blacks of South Africa and aims to compare their situation with that of their counterparts in the city. The rationale for comparing rural and urban blacks is as follows: It is a commonly held assumption that population pressure and exhausted rural resources have had a detrimental effect on the basic need fulfilment of South Africa's rural population. Indeed, large numbers of rural people flock to the cities in order to seek a basic existence and also to satisfy their rising expectations. Many others are prevented from migrating by influx control restrictions. It should therefore appear that rural blacks use the city as a comparative frame of reference when reviewing their opportunities for satisfying their basic needs. It also seems

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[1] This broad definition of South Africa is used throughout this paper.

reasonable to make relative comparisons between these two poles of need provision for analytical purposes.

The evaluation of basic needs

All development policies and programmes must be subject to evaluation in order to determine whether they are shaping according to expectations and will stand the test of time. Regular reviews of development trends are essential if the planners are to detect the telltale signs of progress in the right direction or the errors which need correction before irreparable damage is caused. Basic needs development programmes are no exception. It is essential that the point of departure in basic needs planning be recorded and subsequent changes monitored at regular intervals in order to chart achievements in relation to development inputs.

This brings us to the thorny issue of measurement. A number of questions spring to mind here: Firstly, at which level should basic need fulfilment be measured: at the community, regional or national level? Consistent with the grass-roots conception of basic needs one might propose that basic need priorities be determined within the local community context. This implies that community participation is required to obtain valid measures of basic needs. If we apply this idea in the rural areas, one might stipulate that it is the household which is the unit of consumption and also production of basic goods and services. Therefore, it stands to reason that the household is defined as the unit of analysis. Schemes for measuring household basic needs have been devised by Radwan and Alfthan (1978) and adapted for South African conditions by Robinson (1980). Robinson's scheme measures the extent to which the rural household has access to the various goods and services in the basic needs bundle and also probes into the obstacles which prevent the satisfaction of these needs. Studies of this type tend to yield extremely accurate and sensitive assessments of basic needs in rural communities.

Case studies of communities are ideally suited to an in-depth inquiry into local basic need satisfaction, however, they do not lend themselves to comparative studies. If one ventures beyond the confines of community boundaries, data collection for the evaluation of basic needs satisfaction presents a real challenge. Simkins (1984: 182) wryly observes: 'Researchers are obliged to cobble data together from a number of sources whose methods are not identical and which taken together do not provide complete coverage of the country'. In a similar vein Nattrass (1982: 9) proposes that data collection is an area in which 'there needs to be a great deal of innovation'. At the same time Nattrass (1982: 9) insists that the success of a basic needs approach is dependent on a continuing flow of reliable and relevant information.

It is true that a broad evaluation of basic need achievement in South Africa can be gained from conventional measures of development, such as life expectancy or infant mortality. These statistics are available at the national and regional levels. However, these statistics assess only the longer-term effects, the outcomes of basic need achievement; they do not tell us much about the effectiveness of the programme as such, that is if we are supplying target groups with the basic goods and services which, one presumes, will eventually effect the outcome indicated by, say, reduced infant mortality.

As an aside, the evaluation in terms of impact or outcome rather than process may go a long way toward testing the overall success of the basic needs strategy. By all standards, success can be attributed to a development programme which attacks the causes of poverty and underdevelopment rather than merely alleviating the symptoms. Nevertheless, the initial evaluation of a basic needs strategy may require data which indicates that the programme is working well until such time as the programme has a real impact on standards of living.

A STUDY OF QUALITY OF LIFE IN SOUTH AFRICA AND BASIC NEEDS

With a view to compiling just such a data base, the Centre for Applied Social Sciences at the University of Natal in conjunction with the Human Sciences Research Council undertook a nationwide study of quality of life in 1983. The rationale of the study was that if the basic needs approach were to be applied on a broader basis in South Africa, a larger-scale assessment would be required of basic need priorities, of current access to essential goods and services, and it would be essential to identify groups and areas which were severely deprived in terms of basic needs.

Methodological considerations

A comprehensive outline of the rationale underlying the quality of life study is given elsewhere (Møller and Schlemmer, 1983) and will not be repeated here. Suffice it to say that quality of life for purposes of this study was defined very broadly to embrace subjective reactions to one's day-to-day existence and perceptions of future life circumstances, indicators of mood and morale, and the personal assessment of basic need fulfilment. The composite set of indicators of subjective reaction to day-to-day existence were derived from qualitative exploratory research undertaken in black, Indian and white communities in and around Durban and on the Witwatersrand (Møller et al, 1978; BBDO Research (Pty) Ltd, 1976) which preceded the study and served as a basis for the inquiry. Mood and morale indices were based on Bradburn's (1969) affect-balance scale and adapted for local application.

The basic needs items were defined in terms of the more comprehensive bundle and included items pertaining to the satisfaction of needs such as nutrition, clothing, housing, sanitation and health services, education, saving capability, access to employment, material consumption needs, household utilities, safety, transport, and opportunities for leisure and recreation. Assessments of needs satisfaction were made in terms of the household, or where appropriate, of the individual level of consumption of goods and services.

The preliminary analysis of basic need satisfaction is mainly concerned with describing the differential levels of consumption of goods and services among black people in various living circumstances. In a next stage the level of basic need satisfaction is also related to quality of life in the sense of subjective well-being. Only preliminary results can be discussed here because the full analysis requires the application of multivariate techniques to the survey data which is presently being undertaken. It is obvious that the statistical relationships of basic needs with subjective quality of life which will be of focal consideration

here cannot be assigned the weight of causality. More advanced statistical analysis, such as path analysis, must be applied to unravel the complexities of causality. Therefore, the present discussion serves mainly to highlight the aspects of basic needs which may need immediate attention within the framework of a basic needs strategy. At this stage the findings are mainly descriptive and suggestive and no pretension is made of an exhaustive discussion.

The sample

An interview schedule was prepared by a working committee of researchers in close consultation with members of the community and administered to a national sample of whites, Indians, coloured people, and blacks living in the urban and rural areas of South Africa. In all, over 5 500 personal interviews were obtained. In this paper we shall be concerned only with the black subsample which was stratified into five major groups:

- Urban, township blacks: 1516 blacks living in Soweto and townships in the Bloemfontein, Cape Town, Port Elizabeth, Durban areas and in towns in the Eastern Transvaal and KwaZulu.
- Peri-urban (shack) blacks (N=110) living in shack areas to the north and the south of Durban.
- Blacks living in the rural areas: This category comprises roughly equal numbers of persons residing in the remoter country districts in traditional, planned, and resettlement areas and on mission land in KwaZulu and Lebowa. A total of 436 interviews was obtained in this category.
- A special category of rural blacks consists of persons living and working on white farms in the Pietersburg district and Natal (N=299).
- The subsample of hostel blacks in the greater metropolitan area of Durban is omitted from the discussion here.

This report will give a descriptive account of the basic-need and quality-of-life situation of the two rural-based categories of blacks: the rural and white farm blacks. Along the lines of the argument presented above we shall use the township blacks as the main control group. Data pertaining to the peri-urban category which comprises only a small number of cases, is given only for completeness sake.[1]

For the sake of convenience, references in the tables are made to the survey categories under the headings: rural, white farm, township, and shack(s) (-dwelling) blacks.

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[1] The situation of peri-urban blacks is an extremely complex one. Their status position is ambiguous unlike the urban and rural people whose status positions are more clearly defined in the South African social structure. Therefore, it is difficult to give a valid interpretation of comparisons between the peri-urban and the other categories in the study.

FINDINGS

Absolute levels of basic need satisfaction

Respondents in the survey were questioned about the satisfaction of their day-to-day needs. Depending upon the issue in question the respondents acted as spokespersons for themselves or the entire household of which they were members. Questions were asked in such a way that the responses elicited could be considered objective assessments of basic need fulfilment if answered reasonably accurately.

The responses obtained are set out in some detail in Table A in the Appendix. The figures in the table speak for themselves, but some general comments may be useful. We shall commence with a discussion of the items in the needs bundle.

1. Rural resources: core basic needs

According to the ideal conception rural living is healthy and simple, and also free from the stresses usually associated with urban living. Basic needs such as food, water, fuel, and materials for housing etc are in plentiful supply and free of charge. Country people can walk to places and therefore have no need for transport. Theoretically, these advantages of country life should more than compensate for the lack of modern conveniences and comforts, and the generally lower standard of living available to most rural folk.

However, it is commonly known that the basic ingredients of rural living have been severely depleted by population pressure, among other factors. This is clearly reflected in the survey results. To give some examples:

- Substantially higher proportions of rural and white farm blacks than township and shack dwellers consumed protein foods and fruit and vegetables less often than once a week. Of course, dietary habits may vary markedly according to personal preferences, traditions, and the seasonal availability of foodstuffs, but the figures in Table A relating to levels of nutritional intake are cause for concern.

- Over four-fifths of rural and white farm blacks stated they use wood for cooking or heating in their homes (townships 38 per cent/26 per cent, shacks 30 per cent/26 per cent). However, less than 45 per cent of the rural blacks (shacks 62 per cent) collect their wood nearby. Forty-five per cent of rural blacks must buy firewood and a further 10 per cent must walk over 30 minutes to collect firewood. In this respect white farm blacks are more privileged in that 90 per cent can forage for wood close by. Thirty per cent of rural and white farm blacks use dung for cooking and heating. Most likely this is an indication that other more suitable fuel types are not available. Furthermore, ecologists might argue that dung should not be burnt, but be recycled as fertilizer to increase food production.

- Water may still be free of charge in the rural areas; less than 10 per cent of the rural blacks in the survey had access to piped water. On the other hand, just under 60 per cent in the rural black category had to walk over 15 minutes, that is more than 1 kilometre, to fetch their

water. Access to water is easier for white farm households. However, even here almost four out of 10 households must fetch water over one kilometre away.

- As far as housing is concerned rural households are privileged in terms of dwelling space. By contrast, white farm workers live in cramped conditions. Thirty-one per cent of white farm households occupy a single room. It is remarkable that comparatively fewer shack households (24 per cent) live in such restricted circumstances.

- One would not expect rural houses to be connected to a city-type sewer system. However, even in rural areas appropriate sanitary measures will be required when densities reach certain levels. Therefore, the fact that almost one of every two white farm households uses the bush toilet may be unacceptable from a health as well as a humanitarian point of view.

2. Clothing

Roughly equal proportions of respondents in all categories had not acquired new items of clothing in the past year. The white farm people again seem to be substantially underprivileged with regard to clothing. It is interesting to note that the shack people clothe themselves with second-hand articles to a greater extent than others. This is perhaps a reflection of the flourishing informal raq trade in the peri-urban areas.

3. Distribution of health and education services

It might be expected that basic needs such as education and health may be more difficult to supply to the rural than the urban areas owing to the lower population concentrations.

The survey revealed that the majority of rural and white farm blacks tend to rely on public transport to go to the nearest health clinic or hospital. In this respect the rural categories of blacks did not differ markedly from their urban counterparts. However, substantially higher proportions of the rural (27 per cent) and white farm (397 per cent) than the township (nine per cent) or shack (19 per cent) households stated they required an hour or more to get to their destination.

Furthermore, some 13 per cent of the rural respondents indicate that health services were only available to them on a weekly basis or less often.

In the vast majority of cases the schoolchildren in the surveyed households were able to walk to school. Relatively small proportions of schoolchildren had to travel over an hour to reach school. In this respect the white farm children (18 per cent) and the shack children (15 per cent) were more disadvantaged than the rural (10 per cent) and the township children (three per cent).

It would appear that distance to schools is not the major obstacle which prevents access to education. However, almost one in five rural households and two in 10 white farm households had children of school-going age who were not attending school. The comparative figure for township households was much lower than eight per cent.

Major reasons for children not attending school in the rural and white farm areas were financial constraints, followed by the need to keep children out of school to mind the cattle. Poor health was also cited relatively often by respondents in the rural category.

4. Income and material standard of living

Table 1 shows that the rural and white farm households do not enjoy the same standard of living as their urban counterparts in terms of consumer durables. Substantially lower proportions of the rural (26 per cent) and white farm (20 per cent) than the township (47 per cent) households have entered into hire purchase agreements. Only 23 per cent of the rural and 16 per cent of the white farm households but 35 per cent of the township respondents were able to make savings in the year of the survey. It is noteworthy that the rural categories enjoyed a substantially lower material standard of living despite the fact that the vast majority lived rent-free.

The per-capita incomes (1983) calculated on the basis of the survey data reflect the differential standards of living: Rural (R25 p m), white farm (R12 p m), township (R52 p m), shacks (R45 p m).

It is noteworthy that in terms of material consumer needs the peri-urban shack dwellers do not appear to be much better off than their rural-based counterparts. However, this belies their average earning power which compares relatively favourably to that of township dwellers. White farm households fare worst of all as regards income <u>and</u> material standard of living.

5. Employment

All survey categories indicated problems in obtaining employment for all their members. With the exception of the white farm households whose unemployed members could presumably be absorbed into the farm labour force, albeit for low rates of pay, some 20 per cent of rural, urban, and peri-urban households sheltered unemployed men. The rate of unemployment for women (11 to 17 per cent) appeared to be similar in the rural and urban categories. Surprisingly, women in the shack areas seemed to have fewer employment problems.

6. Transport

According to survey results rural and white farm people are less reliant on public transport than their urban or peri-urban counterparts for regular commuting and therefore incur lower travel expenditure. It is also true that travel to and from work may be less stressful and time-consuming for rural and white farm workers than for urban and peri-urban workers, in particular. On the other hand the lack of household conveniences and utilities in the rural areas requires considerable time on the part of the rural housewife as mentioned earlier.

7. Leisure

Leisure time: All categories of workers spent a similar number of hours on the job, with the exception of the white farm workers. White farm labourers worked a median of 54 hours a week compared with some 40-45 hours in the other categories. Almost 14 per cent of the white farm workers compared with only some three to six per cent in the other categories worked a 60 hour week or more.

Leisure activities: As might be expected the pattern of leisure activities is markedly different in town and country. These differences may be a reflection of preference as well as opportunity. In this connection it is noteworthy that substantially lower proportions of the white farm than other respondents attended religious services.

Differential need satisfaction: groups 'at risk'

We have seen that the idealized image of rural life does not hold true, at least for the rural-based households in the survey. The core basic needs of substantial proportions of rural and white farm blacks are not adequately met, as shown in Table A. In particular, the white farm households appear, with few exceptions, to be consistently underprivileged as regards all the items in the basic needs bundle.

As an aside, the satisfaction of the basic needs of the shack dwellers is not markedly superior to that of the rural-based people in the survey, and it certainly pales beside that of the township people. It is perhaps telling that according to earlier research conducted by the Centre for Applied Social Sciences (Møller and Schlemmer, 1980) the negative image of shack areas is similar to that of rural areas in the sense that rural areas lack modern conveniences and facilities. In other words these areas cannot satisfy the basic needs of their inhabitants to a sufficiently high standard. If we were to identify the categories 'at risk' according to type of need on the basis of the indicators employed in the survey, the following pattern of differential need satisfaction emerges as shown in Table 1.

Table 1. Basic need fulfilment by type of need and area

x denotes inadequate need fulfilment

	Rural	White farm	Township	Shacks
Nutrition	x	xx		
Clothing		x		
Housing		x		x
Water	x			x
Sanitation		x		x
Fuel	xx	x		
Health	x	x		
Education	x	xx		x
Savings	x	xx		x
Transport to work				x
Unemployment	x	?	x	x
Leisure time		x		

One interpretation of Table 1 is that target groups for a basic needs strategy are in rough order: white farm communities, other rural communities, and peri-urban shack areas.

Subjective perceptions of basic needs

We have briefly outlined what might be called the objective assessment of the basic needs situation of rural-based people and compared it with that of people living in urban and peri-urban conditions. Let us now turn to the rural people's subjective evaluation of their living circumstances.

Three probes into the general reaction of people to their life situations were undertaken in the study: Reactions were measured in terms of the indicators: overall life satisfaction, happiness, and happiness with life in South Africa. This last item had a mildly political connotation. The results are given in Table 2 for the survey categories.

The results in Table 2 suggest that levels of well-being or general life satisfaction are moderately high for all black groups. However, only in those categories where substantial proportions of the population do not have access to basic goods and services, do majorities indicate dissatisfaction with their overall life situation. Thus, majorities of the white farm people indicated dissatisfaction on two counts, and the rural people on one count. By contrast, township people's reactions to their life circumstances were decidedly less negative. The shack people gave a mixed response and fell somewhere between the rural and urban groups.

Table 2. Indicators of well-being by area

	Percentage dissatisfied			
	Rural	White farm	Township	Shacks
	%	%	%	%
General life satisfaction[1])	53	61	47	58
Personal happiness[2])	43	47	40	33
Life for blacks in South Africa[3])	48	56	43	44

[1]) Item in interview schedule: 'Taking all things together, how satisfied are you with your life as a whole these days. On the whole would you say you are very satisfied, satisfied, dissatisfied or very dissatisfied?'

[2]) Item in interview schedule: 'Taking all things together in your life, how would you say things are these days? Would you say you are very happy, fairly happy, fairly unhappy, or very unhappy these days?'

[3]) Item in interview schedule: 'Here are some statements about how black people like you could feel about life for blacks in South Africa. Which statement shows how you feel about life in South Africa? - very happy/ fairly happy but not very happy/unhappy/angry and impatient.'

It is interesting to note that levels of happiness are generally higher for all categories of black people. This trend meets expectations and is also consistent with the results of earlier research undertaken by the Centre. The happiness indicator seems to trap a dimension of well-being which focuses on people's personal lives. It has been discovered that aspects of people's personal lives have a strong and immediate impact on people's subjective perceptions of well-being. For example, relationships between personal dimensions of well-being and overall life satisfaction tend to be strong and for the most part positive. Positive, most likely because people are quite capable of making the necessary adjustments to improve personal aspects of their lives. This is not to say that they may be very unhappy until the appropriate solutions are found and their happiness self-rating 'bounces' back to its normal level. By contrast, control over externalities may be more difficult to achieve and any negative influence on a person's well-being may be far more difficult to remove. Therefore, such negative effects may be longer-lasting. At the same time, if improvements to externalities are effected they may have a lesser influence on personal well-being than improvements to the very personal dimensions of life.

These findings have important implications for a basic needs assessment. Basic needs may appropriately be defined as external factors. Therefore, we would expect them to have a stronger influence on the two overall life satisfaction measures ('life satisfaction', 'life for blacks in South Africa') which appeal more to a rational, cognitive assessment of one's life situation, and to evoke a less dramatic reaction in terms of the more affective 'happiness' indicator of well-being.

In an earlier report on the quality of life in South Africa (based on the same survey reported on here), the supposition was made that the effects of poor external life conditions were somewhat 'softened' or cushioned by higher levels of income. Higher incomes allowed the more affluent blacks to rise above the constraints of their respective life situation in the rural, urban and peri-urban areas. Evidence was supplied which confirmed this proposition (Møller et al, 1984).

Seen from a slightly different perspective one might propose that basic needs underachievement, unless it drops to absolutely intolerable levels, will have a generally negative effect on overall life satisfaction. Personal factors such as personal and family relationships can somewhat compensate for the lack of basic need fulfilment, unless they in turn are affected by externalities. There is a grave danger of this happening:

- when the level of a basic needs drops to objectively or subjectively intolerable levels, eg nutritional intake reaches the starvation point;
- when a large number of basic need items in the bundle are inadequately met. This causes basic deprivations to have a cumulative effect; and
- when basic need deprivations interfere with the functioning of satisfying personal aspects of life. For example if cramped dwelling space impinges on otherwise satisfactory family relationships.

Under such conditions one might expect mood and morale, that is a more emotional or affective assessment of one's life situation to suffer. The cushioning effect of personal satisfiers cannot be expected to function any longer.

There are signs that the three situations outlined above may obtain in the target areas and target groups identified in the study. The white farm people would most certainly figure as a target group for a basic need strategy.

Table 3 shows that the mood of substantial minorities of white farm and rural people are bleak. Thirty-seven to 46 per cent described their lives as miserable, dull, insecure, and frustrating. The white farm people seemed to be especially demoralized. Townfolk, who might be expected to lead a more stressful life and to be more aware of their relatively deprived situation in South African society, did not express such negative reactions. Less than one-third gave a negative description of their life circumstances. Shack people on the other hand, whose basic needs are in jeopardy, responded similarly to the rural and white farm people.

Table 3. Mood and morale in everyday life

	Rural	White farm	Township	Shacks
	%	%	%	%
Life is:				
Miserable (vs happy)	38	46	32	35
Dull (vs fun)	42	44	30	36
Insecure (vs secure)	38	37	31	46
Frustrating (vs rewarding)	46	43	32	45
Dissatisfied with spare time activities	19	36	16	25
Dissatisfied with the fun you get out of life	28	32	25	27

Although there are no majorities of negative mood indicated by the rural categories, one can nevertheless imagine that even this level of demoralization among rural-based and shack people can become problematic if it affects the manner in which people are able to cope with life within the constraints of their basic need situation. Demoralized people will not find the strength to mobilize resources to improve their lot, ie break out of the poverty cycle.

Basic need priorities

Moving from the more general to the more specific indicators of life satisfaction, let us review the reactions to various aspects of day-to-day existence.

At the beginning of the interview session respondents were asked to spontaneously name the issues which influenced their lives in positive and negative fashion. The responses are set out in Table 4. As might be expected the respondents indicated that the more personal and intangible type of issue tended to make the greatest contribution to their quality of life. On the other hand unfulfilled existential needs figured largely in the lists of 'worst things in life'.

Table 4. The best and worst parts of life*

Best Part	%	Worst Part	%
Rural blacks			
Family relationships	25	Financial situation	24
Children's progress	23	Unemployment	15
Religious life	18	Family health	14
Marriage, love life	14	Drought	11
White farm blacks			
Family relationships	27	Financial situation	37
Children's progress	18	Death of friends, relatives	22
Job security	17	Unsatisfactory work	12
Marriage, love life	13	Personal relationships	11
Religious life	12	Transport problems	10
Financial independence	10		
Township blacks			
Family relationships	28	Financial situation	40
Religious life	20	Family health	12
Children's progress	17	Personal relationships	11
Job security	14	Housing	10
Financial independence	13	Unemployment	10
Leisure activities	12		
Shack dwellers			
Children's progress	27	Financial situation	17
Family relationships	25	Unemployment	15
Religious life	17	Housing	10
Financial independence	14	Alcohol abuse, drugs	9
Job security	13		
Marriage, love life	13		

*The item in the survey read:
'Think of your life - all parts of it. Which two parts of your life are best - the two parts which make you feel most happy or satisfied? Which two parts of your life are worst - the two parts which make you feel most unhappy or dissatisfied?'

In another exercise the respondents in the survey were asked to give satisfaction ratings of a number of items relating to specific aspects or parts of their lives. If we elect only those items which refer to the basic needs items specified earlier, a picture of deprivation emerges as in Table 5.

It is striking that the pattern of subjective evaluations of basic needs in Table 5 matches the objective assessment discussed earlier (cf Table A in Appendix and Table 1). As a rule higher proportions of rural and white farm than township people express dissatisfaction with their basic needs situation.

Table 5. Specific satisfaction indicators

Percentage dissatisfied with aspects of life

	Rural	White farm	Town-ship	Shacks
	%	%	%	%
Nutrition				
The food you eat	44	54	30	45
Food prices	91	89	88	94
Housing				
Your dwelling here	19	42	37	55
The size of your house	35	48	63	64
The housing available for people like you	38	49	62	66
The rent you pay	30	32	66	53
Water				
Water for your daily needs	61	43	28	76
Health, education, and community services				
Health and medical services	36	42	30	42
The distance of shops, schools, transport and other services	34	64	28	43
Government services in your community	68	64	52	75
The costs of education for yourself and your family	58	59	58	71
Transport				
The roads in your neighbourhood	67	46	63	85
The transport you use most	52	53	51	59
Your transport costs	75	71	77	91
Employment				
Opportunities for finding work	81	69	72	91
Your job security	31	44	32	37
Savings and social security				
Your family's income if you are sick or die	69	72	62	67
Your income when you are old	63	65	58	80
Income and material standard of living				
The way you are able to provide for your family	51	62	44	59
Your wages	60	79	71	70
Your personal possessions - things you have been able to buy	48	65	45	61

There are some notable exceptions: Dissatisfaction with income and expenditure issues tends to be shared by all groups. Even so, white farm blacks as a group are most dissatisfied with their wages, which are on average the lowest. Housing is mainly a cause for dissatisfaction in the urban and the peri-urban areas (cf also Table 4). Again the subjective evaluation corresponds to the objective circumstances described above. Transport and employment tend to be areas which are considered problematic by all groups. To complete the picture, one can state that the pattern of dissatisfaction with basic needs achievement in shack areas is very similar to that of the country areas.

While this pattern of greater dissatisfaction in the rural and white farm areas than in town meets expectations based on the objective needs assessment, it is nevertheless remarkable. Consider, for example, that expectations and aspirations of a higher standard of living are likely to be far higher in town than in the country. Nevertheless the townspeople as a whole tend to be far more satisfied with their life circumstances than the country folk, at least as far as their basic needs are concerned. There is very little evidence of the type of satisfaction born of low expectations among the rural and white farm blacks. This suggests that these rural categories would be receptive 'target' groups for a basic needs strategy.

If we interpret the results shown in Tables 4 and 5 in terms of priority of need among rural based blacks, it would also appear that employment is a top priority, followed by water for rural blacks, and access to services for both groups. Nutrition among white farm workers is another area which requires attention. Unfortunately, there is no data concerning perceptions of the satisfaction of clothing and fuel needs.

The survey findings reviewed so far have been suggestive that dissatisfaction of a specific and more general nature is associated with an inadequate existential base. Of course this does not necessarily mean that conversely increasing the level of basic needs provision automatically improves people's perception of their quality of life. There are, however, indications that this is the case. An earlier analysis of the survey data pertaining to the urban and rural black categories revealed that higher income earners in each respective category expressed higher satisfactions with their lives in general as well as with specific aspects of their lives (Møller et al, 1984). The close association between selected basic need items and well-being depicted in Table 6 is also suggestive of the positive impact of a basic needs strategy on the quality of life. There is reason to assume that among underprivileged groups a small improvement in the provision of core needs would have a relatively greater influence on well-being than among the more privileged.[1] That is, a strategy aimed at providing for basic needs would be more cost-effective in terms of the quality of life of this type of target group.

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[1] On the basis of past research experience one can say that as a rule, no statistical relationship exists between saturated needs and overall life satisfaction.

Table 6. Relationship between specific need satisfactions and overall life satisfaction

Kendall's Tau values are given for correlations which are statistically significant at the 0,001 level. A dash indicates that the correlation is not statistically significant at this level.

	Rural	White farm	Township	Shacks*
Nutrition				
The food you eat	0,31	0,20	0,39	0,47
Food prices	0,21	0,11	0,29	-
Housing				
Your dwelling here	0,20	0,10	0,18	0,31
The size of your house	-	0,09	0,18	0,17
The privacy in your house	0,20	0,14	0,25	0,17
The rent you pay	-	-	0,13	-
The housing available for people like you	0,12	-	0,12	0,16
Water				
Water for your daily needs	0,25	0,32	-	-
Services				
Health and medical services	0,18	0,22	0,14	-
The distance of shops, schools, transport and other services	0,22	0,21	-	-
Government services in your community	0,15	-	0,13	-
Police services in your neighbourhood	0,13	-	0,08	-
The costs of education for yourself or family	0,27	0,20	0,13	0,29
Transport				
The roads in your neighbourhood	-	-	-	-
The transport you use most	-	-	0,05	0,20
Your transport costs	-	-	0,07	-
Employment				
Opportunities for finding work	0,35	0,38	0,14	0,21
Your job security	0,25	0,33	0,10	0,22
Income				
Your wages	0,19	0,29	0,18	-
The way you are able to provide for your family	0,35	0,38	0,21	0,31
Savings and security				
Your family's income if you are sick or die	-	0,24	0,11	0,30
Your income when you are old	0,24	0,32	0,09	-
Material consumption				
Your personal possessions	0,24	0,22	0,12	0,22
(N)	(436)	(299)	(1516)	(110)

* Correlations significant at the 0,05 level.

CONCLUSIONS AND ASSESSMENT

The most general conclusion which can be drawn from this preliminary analysis of the survey findings is that majorities of the South African rural black population feel that their basic subsistence needs are inadequately provided for. This conclusion states the obvious and may therefore sound trivial. However, it must be emphasized that this study gives a very careful examination of its subject of inquiry based on fairly comprehensive data covering the many sectors which make up the South African population. By virtue of the nature of the study, one of its most important functions is precisely to substantiate or negate popular conceptions. Furthermore, as mentioned in the foregoing discussion, policy-making circles need to be informed that rural poverty is not only a statistical fact, but also has a presence in people's minds.

Therefore, the results of the study are all the more remarkable in that they reveal how painfully aware are the underprivileged rural groups of their predicament. This is especially noteworthy because rural blacks are not considered to be particularly militant in their demand for their share of public goods and services. In this connection, it is noteworthy that the white farm people show a keen perception of the violations of their basic needs.

The survey results are also indicative of the frustration and malaise of the rural folk who seem to be unable to break out of the vicious circle of their need deprivation. By their own admission lack of employment opportunities and low incomes constitute the poverty trap in which they are caught up.

Some conclusions regarding the research methods are worth mentioning:

The indicators employed in the study appeared to be extremely sensitive in identifying groups at risk, such as the white farm people, and particular areas of felt deprivation, for example, lack of employment opportunities.

Particularly striking is the degree of correspondence between the respondents' assessment of their basic needs situation and their perceptions of privilege and deprivation. This result is most certainly a good reflection of the face-validity or content-validity of the research instrument.

We are mindful that the statistical relationships between need satisfaction and overall well-being cannot be interpreted as causal ones because we do not know if the requisite assumptions are met. Further multivariate analysis has still to be undertaken. Nevertheless, the results of the correlation exercise shown in Table 6 are suggestive that improved levels of living can make real contributions to the quality of life of rural South Africans. The emphasis is squarely on the rural people. The reason for this is as follows.

In presenting the findings of the study an analytic distinction was made between two poles, the urban and the rural. The comparison of rural and urban needs achievement revealed that urban people generally felt that their basic needs were better provided for than the rural people. (It is of little importance for this argument that the provision of housing needs

was considered a peculiar urban problem). In fact, the survey results seemed to indicate that most core basic needs of townspeople are reasonably adequately met or 'saturated' in the sense that increasing the level of provision would not effect a corresponding increase in their quality of life. Conversely, the conclusion is reached that the impact of a basic needs strategy in the rural areas would optimally improve the well-being of rural blacks, whose basic needs are to a large extent unfulfilled.

Although this paper focuses on the rural rather than the peri-urban blacks, it must be mentioned in passing that the survey evidence also indicates a pressing need for the improvement and upgrading of basic services in the peri-urban shack settlements.

One can only hope that an appropriate basic needs strategy is devised and carried out in the near future for the benefit of rural (and peri-urban) blacks. The research into the quality of life of South Africans reported on in this paper might usefully serve as a baseline with which to evaluate the progress achieved in such a development programme.

REFERENCES

BBDO Research (Pty) Ltd 1976. The Soweto Community Development Programme. Report No 1, BBDO, Johannesburg.

Bradburn N M 1969. The structure of psychological well-being. Aldine Publishing Co, Chicago.

Drewnowski J 1974. On measuring and planning the quality of life. Mouton, The Hague/Paris.

Keeton G 1984. The basic needs approach: A missing ingredient in development theory? Development Southern Africa 1 (3/4), 276-293.

Ligthelm A A and Coetzee S F 1984. An appropriate development strategy for Southern Africa. Development Southern Africa 1 (1), 6-35.

Lisk F 1977. Conventional development strategies and basic needs fulfilment. International Labour Review 115 (2), 327-341.

Møller V, Schlemmer L, Kuzwayo J and Mbanda B 1978. A black township in Durban: A study of needs and problems. Centre for Applied Social Sciences, University of Natal, Durban.

Møller V and Schlemmer L 1980. Quantity or quality? A survey evaluation of housing in relation to the quality of South African black township life. Centre for Applied Social Sciences, University of Natal, Durban.

Møller V and Schlemmmer L 1983. Quality of life in South Africa: Towards an instrument for the assessment of quality of life and basic needs. Social Indicators Research 12, 225-279.

Møller V, Schlemmer L and Strijdom H G 1984. Poverty and quality of life among blacks in South Africa. Paper No 6 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Nattrass J 1979. Southern African economic development and the basic needs strategy. Development Studies Southern Africa 2 (1), 58-65.

Nattrass J 1982. The basic needs approach to development in the South African context. Development Studies Unit, University of Natal, Durban.

Radwan S and Alfthan T 1978. Household surveys for basic needs: Some issues. International Labour Review 117 (2).

Robinson P S 1980. Household surveys for basic needs planning. Journal for Regional Planning 12, 12-20.

Simkins C 1980. Does South Africa require a basic needs programme? South African Outlook 110 (1313), 170-173.

Simkins C 1984. Some aspects of the Carnegie Conference, University of Cape Town, 13-19 April 1984. Development Southern Africa 1, (2), 180-195.

Streeten P 1977. The distinctive features of a basic needs approach to development. International Development Review 19 (3), 8-16.

Streeten P 1984. Basic needs: some unsettled questions. Paper No 8 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

Tollman S 1984. Thoughts on planning for basic needs in South Africa. Paper No 9 presented at the Conference: Second Carnegie Inquiry into Poverty and Development in Southern Africa, 13-19 April 1984, Cape Town.

APPENDIX

Table A. Basic need indicators by area

N=Rural (1516), White farm (436), Township (299), Shacks (110)
Unless otherwise indicated rows add up to 100 per cent

NUTRITION

During the past month have eaten/drunk:	Daily %	Once/twice per week %	Less often %
Meat, poultry, fish			
Rural	14	78	8
White farm	12	75	13
Township	35	62	3
Shacks	29	69	2
Dried beans or peas			
Rural	11	66	23
White farm	6	52	42
Township	10	67	23
Shacks	18	77	5
Eggs			
Rural	23	56	21
White farm	22	54	24
Township	46	44	10
Shacks	39	55	6
Fruit			
Rural	15	60	25
White farm	9	56	35
Township	44	46	10
Shacks	20	73	7
Vegetables			
Rural	48	41	11
White farm	38	38	24
Township	43	51	6
Shacks	44	52	4
Desserts, sweet biscuits or cakes			
Rural	6	35	59
White farm	5	24	71
Township	10	55	35
Shacks	2	46	52
Beer, wine, spirits			
Rural	1	18	81
White farm	0	22	78
Township	5	25	70
Shacks	2	19	79
Tshwala			
Rural	4	7	89
White farm	3	21	76
Township	2	5	93
Shacks	2	14	84

Table A continued

CLOTHING

Items purchased or obtained for self during the past year (exclusive clothes worn solely for work)

	0 %	1 %	2 %	3 %	4 %	5 or more %
Trousers/skirt/frock or equivalent (new)						
Rural	33	20	19	11	7	10
White farm	42	22	16	7	7	6
Township	30	19	21	12	8	10
Shacks	34	30	17	6	4	9
Trousers/skirt/frock or equivalent (second-hand)						
Rural	74	9	13	1	1	2
White farm	74	9	10	3	2	2
Township	77	8	7	3	2	3
Shacks	60	17	6	6	4	7
Jacket/coat (new)						
Rural	60	24	11	3	1	1
White farm	71	17	9	3	0	0
Township	60	25	11	3	1	0
Shacks	55	27	8	3	3	4
Jacket/coat (second-hand)						
Rural	80	12	5	2	1	0
White farm	84	10	2	2	1	1
Township	87	8	3	0	1	1
Shacks	69	10	12	0	3	6
Shoes (new)						
Rural	36	32	21	6	4	1
White farm	46	30	15	4	3	2
Township	29	33	23	9	3	3
Shacks	38	32	19	4	1	6
Shoes (second-hand)						
Rural	76	14	6	2	1	1
White farm	77	14	6	2	0	1
Township	83	10	4	1	1	1
Shacks	67	20	8	1	0	4

Table A continued

HOUSING

Number of rooms occupied by respondent's household (including kitchen, but excluding bathroom)

		1	2	3	4	5 or more
		%	%	%	%	%
Rural	(7)*	7	11	22	22	38
White farm	(6)	31	18	15	18	18
Township	(6)	4	6	12	62	16
Shacks	(6)	24	14	13	27	22

*Median number people in household

Water supply to dwelling

	Rural	White farm	Township	Shacks
Piped water inside dwelling	5	3	34	1
Piped water on stand	5	21	48	3
Water nearby	31	37	15	39
Water more than 15 minutes walk away	59	39	3	57
	100	100	100	100

SANITATION

Type of toilet used at residence

	Flush inside	Flush outside	Pit/bucket latrine	Bush/veld
	%	%	%	%
Rural	3	3	79	15
White farm	1	15	35	49
Township	26	51	23	0
Shacks	0	0	90	10

Toilet is shared with other households

	%
Rural	7
White farm	38
Township	19
Shacks	33

Table A continued

FUEL

Percentages using different types of fuel for purposes of:

	Lighting %*	Cooking %*	Heating %*
Rural			
Electricity	3	2	2
Wood	2	88	81
Dung	1	32	30
Coal	1	52	51
Candles	94	-	-
Paraffin/petroleum	74	70	48
Gas	4	6	4
White farm			
Electricity	10	2	1
Wood	5	93	83
Dung	0	37	31
Coal	0	19	16
Candles	90	-	-
Paraffin/petroleum	67	52	33
Gas	2	2	1
Township			
Electricity	29	24	19
Wood	2	38	26
Dung	0	2	1
Coal	3	47	38
Candles	77	-	-
Paraffin/petroleum	53	71	52
Gas	8	14	8
Shacks			
Electricity	1	1	1
Wood	4	30	28
Dung	0	1	1
Coal	0	9	8
Candles	93	-	-
Paraffin/petroleum	70	88	75
Gas	5	7	5

*Multiple responses

Access to wood (Wood users only)	Rural %	White farm %	Town-ship %	Shacks %
Bought	45	9	74	18
Collected nearby	45	90	2	61
Collected more than 30 minutes walk away	10	1	24	21
	100	100	100	100
(N)	(297)	(246)	(710)	(39)

Table A continued

HEALTH SERVICES

	Rural %	White farm %	Town-ship %	Shacks %
Transport to nearest clinic/hospital doctor				
On foot	33	13	37	9
By bicycle	2	0	0	34
By train/bus	61	61	54	38
By private car	3	23	8	15
Other	1	3	1	4
	100	100	100	100
Distance to nearest clinic/hospital/doctor (Time spent in getting there)				
Less than 15 minutes	14	10	19	9
15-29 minutes	28	17	39	34
30-59 minutes	31	36	33	38
1 - 2 hours	24	31	9	15
More than 2 hours	3	6	0	4
	100	100	100	100
Frequency with which patients are seen				
Daily	72	86	93	78
2 - 3 times per week	15	5	5	7
Once a week	6	9	1	6
Less often	7	-	1	9
	100	100	100	100

Table A continued

EDUCATION

Transport to school (farthest away from residence)	Rural	White farm	Town-ship	Shacks
	%	%	%	%
On foot	87	85	78	70
By bicycle	1	1	1	3
By bus/train	11	13	20	27
By private car	1	1	1	0
	100	100	100	100
*(Primary school is farthest away)	(68%)*	(80%)*	(54%)*	(68%)*
Distance to school (Time spent in getting to school)				
Less than 15 minutes	31	24	35	21
15-29 minutes	36	31	40	32
30-59 minutes	23	27	22	32
1 - 2 hours	9	10	3	14
More than 2 hours	1	8	0	1
	100	100	100	100
Incidence of children of school-going age not attending school	19	30	8	17
Reasons for children not attending school	%*	%*	%*	%*
Poor health	19	9	26	0
Financial constraints	38	51	40	63
Needed to keep house	4	2	2	0
Herds cattle	25	16	2	0
Is seeking employment	0	0	9	0
In wage employment	0	2	0	0

*Multiple responses

Table A continued

INCOME, MATERIAL STANDARD OF LIVING

	Rural %	White farm %	Township %	Shacks %
Rental payments	29	5	90	33
Median monthly rent	R6	R5	R26	R8
Ability to save over past year	23	16	35	20
Hire purchase/debt repayments	26	20	47	23
Consumer durables				
Fridge	11	0	38	9
Electric or gas stove/oven	12	3	31	9
Radio	82	78	85	80
Record/tape player	28	21	38	27
Television	5	3	28	6
Lounge suite or equivalent	74	40	76	65
Bedroom suite or equivalent	92	76	89	89
Vehicle	15	4	21	10
Telephone	1	0	16	1
Estimated median per capita income from all sources per month in Rands	25	12	52	45

LABOUR PARTICIPATION

Percentage households with unemployed persons:

Households with	Rural %	White farm %	Township %	Shacks %
Unemployed men	21	9	22	20
Unemployed men who have been seeking work 6 months or more	13	8	11	14
Unemployed women	27	12	30	16
Unemployed women who have been seeking work 6 months or more	17	11	14	12

Table A continued

TRANSPORT

Usual type of transport

	Rural	White farm	Town-ship	Shacks
	%	%	%	%
Walking	25	49	20	4
Bicycle	2	2	0	-
Public transport	68	45	70	91
Taxis	1	1	4	4
Lifts	0	2	0	-
Private car	4	1	6	1
	100	100	100	100

Workers: Hours spent travelling to and from work per day (includes waiting time):	Rural	White farm	Town-ship	Shacks
Over two hours	0%	1%	12%	15%
Median transport costs per week (nearest Rand)	R1	R0	R3	R2

Unemployed: Hours spent travelling to seek work per week:	Rural	White farm	Town-ship	Shacks
Over ten hours:	43%	50%	50%	83%
Median transport costs per week: (nearest Rand)	R2	R3	R3	R2

LEISURE AND RECREATION

	Rural	White farm	Town-ship	Shacks
Median number of hours worked per week	44	54	45	40
Percentage working more than 60 hours per week	5,6	13,8	2,8	6,1
Persons who have been to/on the following in the past month:				
Cinema, theatre, concert, show	15	12	28	14
Public facilities: ie beach, swimming pool, park, museum	10	4	18	21
Hotel, restaurant, bar, or shebeen	14	19	27	51
Shopping trips for non-essentials to town or service centre	35	36	53	38
Live sports events	20	18	31	11
Religious services	81	59	78	79

7. DIFFICULTIES AND CONSTRAINTS IN FORMULATING POLICY, AND IMPLEMENTING PROGRAMMES TO ANSWER BASIC NEEDS QUESTIONS

S S Brand

The observations made here are based on the first year of operation of the Development Bank of Southern Africa (DBSA) and therefore relate mostly to the independent and selfgoverning national states, where the Bank has focused its efforts, and not so much to other rural areas. The constraints that DBSA has experienced will be dealt with in four categories:

- those inherent in the political institutional framework applying in the rural areas;
- those arising from perceptions about development that exist amongst decision-makers within that framework;
- those related to the capacity to identify, prepare, implement and operate projects and programmes; and
- those arising from the state of knowledge about basic needs, their role in development, and viable models for achieving that role.

INSTITUTIONAL FRAMEWORK

Apart from the communities whose basic needs are to be addressed, the main agents that play roles in rural development in the national states are the central South African government, the national state governments and their agencies, tribal authorities, voluntary or private sector organizations (including the consulting and contracting professions), and since recently also DBSA, which has been set up in a way that protects its operational decision-making from government and other direct political influences, but which in terms of its establishment agreement must pursue objectives derived from those of the participating governments. From the point of view of identifying basic needs and formulating policies and carrying out programmes designed to meet such needs, the South African government may be seen as a little far removed from the grass-roots level; the representativeness and legitimacy of national states governments are controversial and, as will be discussed later, their capacity limited; much the same can be said of tribal authorities; and the voluntary sector is underdeveloped and its status vis-a-vis the formal authority structures is ambiguous. Further constraints on the possibility to address basic needs arise from the fact that there is also a given distribution of functions and responsibilities between the different agents. For example, the functions of DBSA

are at present, for good reasons, limited to financing and technical assistance related to economic development in fairly direct ways, and exclude functions like education, health services, and residential building.

Anyone who wants to formulate policy and implement programmes or projects aimed at basic needs within this framework therefore has a difficult task. As far as DBSA is concerned, it must have backing of the relevant government for any project it supports, in terms of sanction, an indication of the priority of the project, and if the government is not itself the borrower, a government guarantee; it must refrain from 'taking over' projects and instead work towards building local capacities which to some extent is a self-imposed constraint; and it must in some way or other in its appraisal of applications determine whether there is, and insist on community acceptance of, and involvement in the project. However, despite this variety of constraints DBSA does have some scope for flexibility and is prepared to support experimental approaches. This is facilitated by the fact that not only projects, but programmes as well can be supported by DBSA loans or technical assistance.

PERCEPTIONS ABOUT DEVELOPMENT

In the perception of development issues, the rural areas are much less 'visible' than the urban areas at the central level of decision-making - both in government circles and in business circles and the rest of the private or voluntary sector. To some extent this perception is also transposed to the local (national state) government level - where the 'smokestack syndrome' is still quite prevalent - partly as a result of the demonstration effect of the core economy and partly as a result of the pressure on those governments to perform. An important vehicle for the transposition of this perception to the local level are the consulting and contracting professions on which the local governments and their agencies have to depend to a large extent for the identification, preparation and implementation of projects, and who are by and large oriented to 'First-World' approaches.

Even to the extent that the importance of rural development is recognized there is also a tendency towards a preference for more 'visible' projects - large estates in various guises, which are highly dependent on sophisticated management inputs, highly subsidized and therefore unsustainable and non-replicable. Between that perception of rural development in general and the identification and fulfilment of basic needs in particular, there is a huge gap. In fact, the latter tends to be seen not really as a form of development, but rather as something to be dealt with through grant or transfer arrangements - what is actually done in this respect is therefore also of limited scope, unsustainable and non-replicable. This is, incidentally, related to a persistent private-sector perception that all development in the national states is primarily a matter for government.

The Development Bank of Southern Africa can, and does try to transcend this apparent gap between government and community perceptions of rural needs, by insisting on the sustainability and replicability of projects and programmes submitted to it. This is done, for example, through loan conditions relating to individual farmer involvement in agricultural projects, support for experimental basic needs-directed projects, and

technical assistance loans and grants aimed at clearer and more thorough identification and design of projects.

Some progress is reflected in the fact that DBSA can follow this approach by relating to expressed objectives of the participating governments reflected in various policy statements - eg in the regional development agreement subscribed to by all the participating governments in 1982. DBSA has also had some success in bringing around some of the professions to a more development-oriented approach. However, in practice actual projects and programmes are still biased heavily towards industrial and urban dimensions. The reasons for this must be sought in the remaining two kinds of constraints.

INSTITUTIONAL CAPACITIES

As in many other parts of the Third World, the capacity of existing institutions to identify, prepare, implement and maintain or operate projects and programmes is found by DBSA to be as serious a constraint on the formulation of policy and the implementing of development programmes as the availability of funds. It can be taken for granted that this applies as much to basic needs programmes as to other development programmes. Indeed, those institutions that do have some capacity, eg development corporations, tend to be oriented towards larger, more sophisticated activities and to give only grudging, if any, recognition and resources to any less formal, not to speak of basic needs, approaches.

In consequence the initiative for such approaches must to large extent come from outside - ie, from voluntary organizations with their rather fragile position within the institutional framework which has already been dealt with, or from a body like DBSA. The dilemma of DBSA lies in the danger of being 'sucked into' taking over, which has also already been mentioned; and tries to overcome this by loan conditions aimed at institution-building, and the provision of technical assistance to facilitiate this. Irrespective of what the political institutional framework might be, it is very clear that all forms of development in these predominantly rural areas will require the development of appropriate 'technocratic' institutions, or the adaptation of existing ones. A particular institutional problem that DBSA frequently encounters, for example, is that development corporations, which are set up as corporate bodies that must at least cover their running costs and keep their share capital intact, are commonly expected to undertake functions that properly belong with tax-funded government departments, but for which the relevant departments simply do not have the capacity. In several loan agreements DBSA has included conditions aimed at creating a more appropriate funding basis to enable development corporations to fill this vacuum without undermining their own financial survival.

STATE OF KNOWLEDGE

The last kind of constraint dealt with here arises quite simply from the huge shortcomings in our present understanding about the concept of basic needs and the role of their fulfilment in development in general, and in rural development in particular and from the lack of viable formats or models through which that role can be realized. There are unfortunately not too many demonstrably successful models which can meet sustainability

and replicability criteria, and this is reflected in the contrast between the composition of the loan portfolio DBSA has been able to approve and that of the applications put forward to it. As a consequence, DBSA tends still to approve project loans for hard infrastructure, but technical assistance loans or grants in respect of rural development projects, including those aimed at meeting basic needs.

Still, the assurance can be repeated that within the institutional constraints which it is subject to, DBSA is prepared to support experimentation. Also, it is very encouraging to see the increasing involvement of not only social scientists, but applied natural scientists as well, in issues of this nature. It appears, for example, that at various CSIR institutes, there is a reservoir of knowledge gained from past research programmes, which has long lacked a market. DBSA and others involved in development can help create such a market, which would justify and call forth further research. It is to be hoped that one of the outcomes of the CSIR National Programme for Environmental Sciences and this seminar will be to ensure that some of that research will be directed at further clarifying the role that the meeting of basic needs can play in development in general, and in rural development in particular.

LIST OF PARTICIPANTS

Dr S B Bekker	Urban Foundation, P O Box 1198, JOHANNESBURG 2000
Mr O Bosman	Foundation for Rural Community Development, P O Box 227, PAARL 7620
Dr S S Brand	Chief Executive: Development Bank of Southern Africa, P O Box 784433, SANDTON 2146
Mr J W M Cameron	National Institute for Transport and Road Research, CSIR, P O Box 395, PRETORIA 0001
Mr F C T Coetzee	Director: Socio-economics, Department of Cooperation and Development, P O Box 384, PRETORIA 0001
Mr A H Conley	Department of Water Affairs, Private Bag X313, PRETORIA 0001
Mr M J de Klerk	School of Economics, University of Cape Town, RONDEBOSCH 7700
Mr P Derman	Department of African Studies, University of Natal, King George V Ave, DURBAN 4001
Mr C de Wet	Department of Anthropology, Rhodes University, P O Box 94, GRAHAMSTOWN 6140
Mrs E Dostal	Futures Research Unit, University of Stellenbosch, STELLENBOSCH 7600
Dr A A Eberhard	Energy Research Institute, University of Cape Town, RONDEBOSCH 7700
Prof G F R Ellis	Department of Applied Mathematics, University of Cape Town, RONDEBOSCH 7700
Dr H P Fourie	Head: Social Planning, Department of Constitutional Development and Planning, Private Bag X644, PRETORIA 0001
Dr J G Garbers (Chairman)	President: Human Sciences Research Council, Private Bag X41, PRETORIA 0001
Prof A Giliomée	Department of Political Studies, University of Cape Town, RONDEBOSCH 7700

Mr T Hart	National Institute for Personnel Research, Human Sciences Research Council, P O Box 32410, BRAAMFONTEIN 2017
Mr D Horner	Southern Africa Labour and Development Research Unit, School of Economics, University of Cape Town, RONDEBOSCH 7700
Mr B J Huntley	Manager: Ecosystem Programmes, Foundation for Research Development, CSIR, P O Box 395, PRETORIA 0001
Mrs E Krüger	National Manpower Commission, Private Bag X316, PRETORIA 0001
Prof P J du P le Roux	Director: Institute for Social Development, University of the Western Cape, Private Bag X17, BELLVILLE 7530
Dr G Lenta	Department of Economics, University of Natal, King George V Avenue, DURBAN 4001
Dr V Møller	Centre for Applied Social Sciences, University of Natal, King George V Avenue, DURBAN 4001
Prof E J Moody	Development Bank of Southern Africa, P O Box 784433, SANDTON 2146
Dr D Mullins	Central Economic Advisory Service, Department of Constitutional Development and Planning, Private Bag X644, PRETORIA 0001
Mr G R Pardoe	Anglo American Corporation of South Africa Ltd, P O Box 61587, MARSHALLTOWN 2107
Mr C Poultney	Department of African Studies, University of Natal, King George V Avenue, DURBAN 4001
Prof M T D Savage	Department of Sociology, University of Cape Town, RONDEBOSCH 7700
Dr J H Schoeman	Chief Director: Community Development, Department of Health and Welfare, Private Bag X88, PRETORIA 0001
Dr D Scotney	Department of Agriculture and Water Supply, Private Bag X250, PRETORIA 0001
Dr J S Sharp	Department of Social Anthropology, University of Cape Town, RONDEBOSCH 7700
Mr C E W Simkins	Southern Africa Labour and Development Research Unit, School of Economics, University of Cape Town, RONDEBOSCH 7700

Mr A D Spiegel	Department of Social Anthropology, University of Cape Town, RONDEBOSCH 7700
Mr A W Stone	Department of Geography, Rhodes University, P O Box 94, GRAHAMSTOWN 6140
Mr S van der Berg	Department of Economics, University of Stellenbosch, STELLENBOSCH 7600
Dr G I van Rooyen	Deputy Director General, Department of Health and Welfare, Private Bag X88, PRETORIA 0001
Prof L A van Wyk	Department of Economics, Potchefstroom University for CHE, POTCHEFSTROOM 2520
Dr J M Verster	National Institute for Personnel Research, Human Sciences Research Council, P O Box 32410, BRAAMFONTEIN 2017
Prof M E West	Department of Social Anthropology, University of Cape Town, RONDEBOSCH 7700
Prof F A H Wilson	Director: Southern African Labour and Development Research, Unit, School of Economics, University of Cape Town, RONDEBOSCH 7700
Liaison Officer: Mrs E W Auret	Foundation for Research Development, CSIR, P O Box 395, Pretoria 0001

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