SPRO-CAS: OCCASIONAL PUBLICATION NO.4

SOME IMPLICATIONS OF INEQUALITY

General Editor
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THE STUDY PROJECT ON CHRISTIANITY
IN APARTHEID SOCIETY
JOHANNESBURG 1971

IMPLICATIONS

OF INEQUALITY

Cover design by Percy Itzler

Printed by Golden Era Printers & Stationers 44 Pine Avenue Fordsburg Johannesburg

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WHAT IS SPRO-CAS?

THE STUDY PROJECT on Christianity in Apartheid Society was established in the middle of 1969 and its work will be completed during 1971.

The aim of the project's sponsors, the South African Council of Churches and the Christian Institute of Southern Africa, was to call together a body of experts to examine the implications of applying Christian principles to the major areas of our national life and to make recommendations for a juster social order.

The original stimulus for Spro-cas was provided by the Message to the People of South Africa, which was issued by the Theological Commission of the South African Council of Churches in September 1968. The Message provided the basic theological foundation for the project, i.e. the Gospel as reconciliation.

Six commissions were established to study the following aspects of South African life, the 'apartheid society': economics, education, law, politics, sociology and the Church. The members of the Commissions were chosen on the basis of their intellectual and practical ability and their acceptance of the need for change in South Africa in the direction of reconciliation and love. Nearly 150 South Africans, who probably constitute the most broadly representative group ever assembled in this country to examine its national life, agreed to serve on the six commissions, either as members or consultants.

In addition, a large number of people outside the immediate membership of the commissions have been consulted and their contributions have significantly added to the depth of the work being done by the commissions.

Spro-cas is now approaching a position where it is possible to anticipate the publication of the final reports of the six commissions. These will be published independently of each other, in English and Afrikaans, during the first half of 1971, and will be followed by a co-ordinated report drawing on the findings of all the commissions.

As a preliminary to these reports, it has been decided to issue a series of Spro-cas Occasional Publications containing some of the working documents prepared for the commissions. The previous titles in this series were: *Anatomy of Apartheid* (published November 1970), *South Africa's Minorities* (published January 1971), *Directions of Change in South African Politics* (published February 1971).

The papers in these publications reflected the wide range of backgrounds and viewpoints of the writers, who include Andre Brink, Fatima Meer, Alan Paton, Lawrence Schlemmer, Michael Whisson and Denis Worrall.

Advance orders for Spro-cas publications should be addressed to:

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Further information will gladly be given on request.

NOTE: A full account of the events leading to the publication of the Message to the People of South Africa, and the subsequent reaction, is given in *The Message in Perspective* (de Gruchy and de Villiers) published by the South African Council of Churches in 1970.

INTRODUCTION

editor

INEQUALITY IS a basic feature of South African life. Apartheid seeks to differentiate, to separate, and in doing so perpetuates inequality. White South Africans have a disproportionate share of the land, the wealth, the power.

The grand design of Separate Development seems to further entrench the inequalities in our society. The gap in salaries of white and black doctors in the government service has increased rather than narrowed in recent years. This is but one example, that can be repeated in the case of teachers, academics and nurses. As the African population grows, so the percentage of land allocated to them as 'homelands' becomes progressively inadequate. While white South Africans reach towards the most affluent standards of living enjoyed anywhere, black South Africans are falling victim to malnutrition and tuberculosis and the social ills that result from poverty and frustration.

The contrasts between Houghton and Pimville, Langa and Bishop's Court, between Limehill and the rolling Natal midlands, reflect the inequality in our society. It is understandable that passionate denunciation is one reaction.

The purpose of the papers in this booklet, however, is not so much to denounce as to inform and to awaken the concern and the understanding that precede meaningful action. The broad inequalities in South Africa - in terms of distribution of land, wealth, power - take on a new dimension in the intensely human context of suffering people in the African reserves and starving children in hospital wards.

NOTES ON THE PAPERS

DISTRESS IN THE RESERVES: this article, originally published in *South African Outlook* in 1970, was also circulated as a background paper to the Spro-cas Commissions. Dr Anthony Barker is Medical Superintendent of the Charles Johnson Memorial Hospital at Nqutu, Zululand.

MALNUTRITION: a working paper for the Spro-cas Social Commission. Professor John Reid is head of the Department of Physiology in the Faculty of Medicine, University of Natal.

POVERTY: a working paper for the Spro-cas Social Commission. Professor Watts is Director of the Institute for Social Research, University of Natal.

AFRICAN RESETTLEMENT: a background paper for the Spro-cas Economics Commission. Father Desmond is a Franciscan priest whose concern about the resettlement of Africans in South Africa resulted in the publication by the Christian Institute of his book, *The Discarded People*, in 1970.

DISTRESS IN THE RESERVES

e.a. barker

NEITHER THE old African Reserves nor the newer Regional Authorities can provide sufficient employment for their inhabitants. The majority of able-bodied men and women in the working years of their lives are obliged to seek employment away from their homes as migrant workers in the cities.

The harsh reality of this situation is hidden from the public gaze by the sight of herds of cattle grazing the reserves, and fields of admittedly stunted corn. We have for far too long assumed that all is well in the reserves; that peasant agriculture can underwrite a poor wage structure. For so long as a man has his cattle at his back, and his lands are planted and ploughed, he is considered safe from the extremes of poverty. And so, of course, he is; provided he has cattle, provided his crops are reasonably productive. The real picture of rural life is, sadly often, less idyllic. Agricultural overcrowding is everywhere apparent, which, together with archaic farming methods, lack of capital and the decay of incentive, has reduced the reserves to centres of erosion and denudation. In addition, population movement - the return to their homelands of dispossessed city dwellers, the establishment of rural townships, the endorsing-out of workless men and women from the cities - yearly renders this a more acute problem. The reserves, too, share the universal dismay at the population explosion which will surely alter - if

nothing else does - the whole face of the rural areas. More children are born; more survive. With comparatively little energy it is possible to reduce infant death rates from 350 per 1000 live births to around 70 per 1000. Perinatal mortality (deaths of infants at birth and within a week of birth) can be knocked down to under 30 per 1000 births by modest attention to medical detail, so that the nett gain in population is greatly enhanced. 'You doctors make things worse', a business man grumbled at me sourly after I had been unwise enough to speak on the African Child at an industrialists' get-together.

True: we do. Though we can hardly advise a return to the bad old days of harsh natural balance, any more than we can consider thinning out business men over the age of forty. Another factor augmenting rural unease is the ambition of many who have tasted the sweets of civilization to live closer to its glitter and comfort.

It is fashionable - perhaps accurate - to speak slightingly of civilization, placing the word in inverted commas, but not many of us will willingly do without baths and hot water, concerts and schooling, surgery and elegant clothing. It is humbug to prescribe for others a renunciation of these comforts in favour of the nebulous spiritual advantages that might accrue from their denial. One thing is very plain; our reserve dweller wants the physical advantages of civilization more than he yearns for the spiritual rewards of the spartan life. Boredom and dullness characterize the picturesque life of the reserves, beside which the life of the towns looks a Babylon of delights. Pressurized by economic shortfall, dazzled by city brilliance, wearied by country tranquillity, the young move to town, to work, to excitement, to comparative opportunity in a stoppered society. Josi is Heaven; its streets are gold.

Social planners have seen the chaos that would result from a sudden massive influx of workless workers, homeless citizens. Like the walrus and carpenter they have wept at the magnitude of the problem. Shrewder than those two symbolic figures they armed themselves with better weapons than mops and tougher agents than maids. They made law and enforced it. Yet the law, seeking to curtail one evil, has produced another. Migratory labour, that began as an almost inescapable evil in a culturally mixed society, has become entrenched dogma. Its continuance is assured, for it has convenience in a society where the maintenance of racial division is both practised and valued. It is possible to see the assumptions on which Migratory Labour,

viewed as a doctrine, is based:

> That Africans have no stake in the life of the cities and institutions of the country above the level of certain forms of labour.
>
> That capital has a right to direct labour which, in its turn, has no right to collective bargaining.
>
> That the desirable direction of development of African communities is rural rather than civic, traditional rather than experimental.
>
> That the tribal areas are capable of providing a continuum of nurture, absolving the authorities from opening avenues of realistic employment.
>
> That settled labour is a danger from its power to organise which is best avoided by insistence on rapid labour turnover.
>
> That because African labour is quiet, it is content.
>
> That separation from his family hurts the African less than it does the European.

Many industrialists have for long pointed out the inefficiency of migratory labour, and would, if they could, see its end as quickly as is consonant with order and industrial peace. But their voice has gone unheard, because the nation's till is full. Border industry, while still strictly in line with the seven assumptions, has nevertheless a quality of sense and humanity about it. Decentralization of industry is in any case being forced upon South African society as in other developed industrial communities, by problems of water and fuel, cartage and town planning. Here for once good economics are consonant with good social sense. The coming of new industry to northern Natal is an undoubted blessing, giving sudden meaning to previously nonsense townships like Madadeni and Mondlo. Yet, while this is gain, there is all too little of it, in spite of the economic carrots held out to industry. Men may well say in time to come that here was too little, too late. Opportunity limps behind the expansion of the population.

Economic or even social analysis of migratory labour will fail to reveal the full picture of its cost in terms of human misery. To learn this you must listen to the lonely wife, the anxious mother, the insecure child. Small tokens, it may be said, yet straws blown by the rising wind, indications of the gale that blows around the bend of the decade. It is at family level that the most pain is felt, and we cannot forget that the African cultural heritage enshrines a broader, more noble con-

cept of family than that of the West. The extended family has proved a marvellous security for those for whom, otherwise, there was no security at all. The extended family is a net wide enough to gather the child who falls from the feeble control of neglectful parents; it receives the widow, tolerates the batty, gives status to grannies. Migratory labour destroys this, by taking away for long months together, the father, the brother, the lover and the friend. Each must go, and no-one fools themselves that these men can live decent lives in a sexual vacuum. The resultant promiscuity is but one aspect of a mood of irresponsibility. For your migrant is concerned with nobody but himself; his own survival is the only survival that he can influence by any act he performs. He may be well fed; doubtless he is. He may be well cared for; doubtless he is. He may have the companionship of others like himself. Yet the food he eats cannot fill the bellies of his children, nor the blanket he sleeps under warm any but himself. His care, his love, his family loyalty cannot reach out to his wife, nor caress his children, nor extend to the grandmother who brought him up.

While she, who is left behind at home, what are the emotional outlets for her? With society's usual dual standard, the wife is bound to a stricter code of chastity, and is watched over, vigilantly, by her mother-in-law. It will be no easier for her than for her husband; the theft is the same. Our country women find release in child-bearing, and she is happiest whose husband, on his return from his shifts, leaves behind him during his stay, a baby in her womb. The dismay of the wife when no pregnancy results from this fervent mating may be imagined. It goes very deep, even setting in motion the process of false pregnancy and, sometimes, of mental breakdown. Any doctor familiar with the story will share the pity of it.

Deprived of their natural guides, children of migrants grow through insecure, uncertain childhood to an adult life whose sole preoccupation may be to escape the system. There must be a harvest of aggression, with the weeds of violence growing rank within it. The dreadful society is the community of the careless, of those who, treated like boys, behave like boys; of those who, having no responsibility laid upon them owe none to any man. In that chill climate will there be any place for trust? Any hope for human intercourse at all?

MALNUTRITION

j.v.o. reid

THERE ARE three social causes of malnutrition all interlinked with one another - poverty, ignorance and disease.

POVERTY

Poverty can only be determined empirically since human needs are relative.

The first method of determination, that of establishing a poverty datum line, relies on the apportionment of the *basic unavoidable* expenses of a household, including those of just sufficient food costed from retail prices. By this method a PDL of R53 p.m. for a family of 2 adults and 3 children was established for 1967 in South Africa. Of the various methods available for surviving despite an income lower than the PDL (e.g. going into debt), the easiest and most often chosen method is cutting down on the necessary but more expensive foods.

The second method is to survey a population and to establish the income of those who show signs of malnutrition, and of those who do not. By this method, applied in 1964 to Bontebeuwel near Cape Town, families with an average income of R21 per week or less had signs of malnutrition *(1)*. Part of the reason for the discrepancy between the two figures is due

to the difference in size of the families: the Bonteheuwel family had more children. This second method is the more realistic, because it takes into account the size of the average family for the different incomes, the two being closely and inversely related. Because of their contribution to our understanding of the inter-relationships between poverty, educational level, family size, food intake and disease, the salient findings of the Bonteheuwel study are given in Appendix I. These estimates cannot be used for other populations, because a basic essential expense to one community may be a luxury to another. Economic and psycho-social factors play their part in determining what is essential. It is therefore quite possible to find a community where a family possesses a television set and a large car, but where children are malnourished (e.g. some Americans), and another community where possessions are are minimal but the children are well-nourished (e.g. Thai peasant).

IGNORANCE

Ignorance contributes to malnutrition in various ways. There may be ignorance of food values, so that a mother does not know how best to employ her money. Such ignorance is not necessarily a result of poor formal education. Some highly educated people may take highly deficient diets because of ignorance (Captain Scott probably owed his death to this), while the tribal Zulu, for instance, lacking formal education, by tradition mixes beans - when he can afford them - with maize in a dish, *nkobe*, in the proportion 1:2 by weight. Recent scientific investigation has shown that this is the optimum ratio, by which the good aspects of each foodstuff compensate for the the bad aspects of the other and so produce a mixture of high nutritional value.

Ignorance may cause food to be cooked in ways which destroy some important food elements. In general, the good that cooking does is the breaking down of cell walls, the softening of tough tissues. The bad that it does is the oxidation of foodstuffs, which is promoted by the heat of cooking. If oxygen is freely available (as in cooking in an open pot), oxygenation is exaggerated. If it is absent or greatly restricted, for example in a pressure cooker, food values are well retained.

Again, ignorance in this matter is not necessarily a result of poor formal education. One of the most sophisticated nutrition teachers in South Africa teaches open-pot cooking, while the 'uneducated' Central American Indian by tradition cooks maize

in the presence of lime; investigation has shown that this practice preserves what little of certain vitamins the maize contains, by keeping it alkaline.

Ignorance may affect what is grown, and how it is grown, by individual growers or those who by decisions of state determine what is profitable to grow, and what may or may not be be grown. Thus by decision of state, maize production is subvented in South Africa, and enough is grown to make the country a large scale exporter in most years. It is not certain that the same money, spent on other crops, would not cause production of foods that would banish malnutrition from South Africa, and so change the productivity of its inhabitants that the resultant economic gain would greatly outweigh the loss of the maize export, which is in any case conducted at a loss.

The survival of the fittest, in the sense of those practising the most fitting form of food production, and the corresponding non-survival of those practising unfitting forms of food production, may result in the evolution of practices which are more efficient for the climate, soil and community, than might appear to be the case to strangers. The ground-nut scheme of East Africa is an example of the mistakes that can be made by those not subject to the same evolutionary forces as the local inhabitants. The cultivation to the *ndumbe* by the Zulu and his practice of eating the leaves of certain wild plants are further examples of the wisdom of the 'uneducated'; the *ndumbe* has been found to be very nutritious; the leaves contain a protein which excellently complements the protein of maize, in the same way that bean protein does.

Ignorance of how best to grow or produce food is a highly significant factor in most communities, and in all where malnutrition occurs. The difference between best and worst outputs per unit input is usually between 5 and 10. Thus the crop of wheat from one acre in Denmark is 6 times the crop from an acre in India. In the latter country, however, production was increased ten-fold in a small experiment to see what optimum methods could produce. The trenching system introduced by a Zulu at the Valley Trust in Natal gives higher yields than any artificially fertilized soil there: the advantage does not always lie with the formally 'educated'.

Certain factors increase the need for certain food elements. Excessive physical activity, pregnancy, rapid growth, and disease increase needs, and all can heighten the incidence of malnutrition. People often inadequately adjust their food intake for these situations.

Social habits may lead to malnutrition. For example, the man who takes large quantities of alcohol is very liable to

malnutrition if he takes inadequate amounts of good food, because his need for certain dietary elements is heightened, and because the alcohol damages his liver and gastro-intestinal tract, making them less capable of absorbing and retaining important dietary elements. As further examples, Western dietary and social habits result in a high incidence of the disease atheroma, which is at least partially a disease of nutrition, while the life-long habit of being fed samp makes Africans in South Africa not infrequently choose samp in preference to other far more valuable foods, even when these are available to him.

DISEASE

Disease, especially chronic disease, may radically alter nutritional requirements; the example of alcoholic disease has already been given. Similarly tuberculosis is universally regarded as increasing the need for protein, so much so that in South Africa protein supplements are provided by the State free to those who have been treated for the disease.

The interaction of disease and malnutrition is in both directions: the one causes and is worsened by the other. The best clearest example of this is the interaction between kwashiorkor and infective gastro-enteritis which was worked out by Cape Town nutritionists; the interaction may be so marked that one cannot separate them, and it is almost better to regard them as a single disease, protein-calorie malnutrition (PCM).

In some cases where such an interaction might be expected, evidence for it is lacking. It may, for example, be thought that amoebiasis is predisposed to by malnutrition and predisposes to it. There is no real evidence, however, that amoebiasis is more likely to occur in the malnourished because of his malnutrition.

Treatment for disease is itself not always free from the danger of causing malnutrition. The best examples of this are the treatment of tuberculosis with certain drugs, which cause a deficiency of a particular vitamin; and the use of certain antibiotics which may cause appearance of the signs of certain vitamin deficiencies. The inter-relationship between diet, disease and drug is therefore a complex one, and the result cannot always be predicted in any group of particulars.

RELATIONSHIP OF APARTHEID TO MALNUTRITION

Malnutrition does not, of course, occur merely as a result of apartheid. Malnutrition was a problem before this system was formalized and is a problem in many under-developed countries which have no apartheid. Nevertheless indices of the incidence of malnutrition such as the child morality rate, show South Africa to be as bad or worse than several countries with a much lower per capita income, *(2)* suggesting strongly that malnutrition is much commoner than it might otherwise be.

Associations between apartheid and malnutrition can be listed as follows:

1. Whites lack awareness of the problem. Malnutrition occurs particularly in rural and reserve areas, so that white people do not generally come into contact with it. The entrance of rural Africans, who are largely the unemployed, into urban areas is greatly restricted, so that the problem is not seen there except in hospitals.

2. Apartheid creates the impression that non-whites, particularly Africans, belong 'elsewhere' and are the responsibility of their own authorities or a Government department; this causes the idea that their malnutrition is also the responsibility of 'someone else'.

3. Apartheid creates the impression that non-whites, and particularly Africans, are 'different', have different living standards, lower standards of hygiene and education, lower productivity and different food customs and taboos, and different expectations from life; this causes the idea that the associated malnutrition is merely part of this different existence. It does not therefore elicit the reaction that such malnutrition would surely do, were it found in a White community.

4. Security police who question mission hospital superintendents or journalists who have publicised cases of malnutrition, and authorities who prevent entry in African areas of people concerned with the problem, provide the impression that 'malnutrition is a dangerous subject in which the ordinary citizen should not be concerned.

5. Job reservation and limited school education and technical training limits the earning capacity especially of Africans, and increases the ignorance and poverty factors in malnutrition.

6. The migratory labour system affects the population growth for the following reasons: a rural mother needs extra

children to provide the services a resident father would otherwise provide; she desires children as a tie which will draw her husband back to her; she needs children to provide for her insecure future; the urban father, bearing no responsibility for the day-to-day burden of bringing up children, is unconcerned how many children his rural wife has; the rural mother marries off her daughters as soon as possible, so that an early beginning to child-bearing is ensured; inefficiency in the management of land promotes the exhaustion of soil.

The migratory labour system is not specific to apartheid, and not entirely involuntary; it came into being at an early stage of development of mining and industry when it was both greatly rewarding economically, and more compatible with the tribal system of the time. Without the institutionalization of the migratory labour system, it would undoubtedly have begun to be superseded by settled labour as industry demanded more skilled and permanent labour, as demands increased for more workers and as the tribal system broke down. It is uncertain how far there is still a desire among Africans to retain their migratory life. In *Townsmen and Tribesmen* Phillip Mayer considers this point *(3)*, and there is a common experience among employers that some workers dislike the idea of having their rural families experience the disruptive, disturbing life of the township. The voluntary element of migratory labour will vary with the conditions of rural and township life, and also with the accessibility of the rural area and the expenses of that mode of life.

7. African rural life together with restricted entry into cities, ensures that rural families are larger than urban families, so increasing population, unemployment, and malnutrition. Rural resettlements where land is restricted and employment opportunities reduced are particularly likely to cause malnutrition.

8. Restrictions produce among non-whites an apathy towards helping themselves. One can compare the situation in Lesotho with that of South African reserve areas: poverty, land-scarcity, and education levels are much the same, but rural self-help programmes appear to be making striking progress in Lesotho, and reportedly even more so in Botswana, in comparison with the South African reserves.

9. Despite the verbal emphasis on separate development, the non-white Universities staffed almost entirely and strictly controlled by Whites, produce non-white graduates who as prospective leaders of their people are little concerned with the problems of their rural communities. Again the comparison can be made with the situation in the former protectorates: the

University of Botswana, Lesotho and Swaziland has an emphasis on community development which is striking.

WHO SUFFERS FROM MALNUTRITION?

There are various groups in the population, who are liable to one or other form of malnutrition. They are given here in order of incidence:

1. Non-white infants. These form by far the most susceptible part of the population, African infants are the most liable, next Coloured infants, then Indian infants.
2. Non-white children, in the same order of likelihood.
3. Elderly Non-white folk.
4. Non-white women of child-bearing age.
5. Coloured adults, especially men.

Among Africans the population of the reserves is more susceptible than urban population.

In the White population, preventable malnutrition only occurs in cranks and highly neglected children.

In all adult deficiency diseases, there is an important vicious circle: deficiency disease causes loss of occupation which in turn causes deficiency disease. It is obvious that this vicious circle has a strong tendency to involve subsequent generations.

Across the world, malnutrition is a particular problem in Indonesia, the Indian sub-continent, Korea, Malaya, Africa, Central and South America and the Caribbean. It is noteworthy that it is not a problem in Japan, Taiwan, Burma, Thailand, and is rapidly disappearing as a problem from the Middle East.

WHAT DO THESE GROUPS SUFFER FROM?

The common diseases are Kwashiorkor, marasmus, pellagra, vitamin A deficiency, scurvy, and rickets. Beri-beri is rare.

In all deficiencies there are 3 grades of severity more or less clearly determinable:

1. the mildest, detected only as a tendency towards a chemical abnormality in the body. This merges into
2. 'subclinical' disease, i.e. one where body chemistry is abnormal, and the patient when stressed, for example, by excessive physical activity, or growth, or pregnancy, or disease, shows evidence of malnutrition in his poor responses to the stress, and in other ways. This merges into

3. clinical malnutrition where the body is responding abnormally even to the ordinary stresses of every day life.

General descriptions of the diseases of nutrition suffered by these groups are given in Appendix II.

HOW FREQUENT ARE THE DEFICIENCIES?

Protein-calorie malnutrition and pellagra are common; Vitamin A deficiency, rickets and scurvy are less common. Beri-beri and other deficiencies are rare. Details are given in Appendix III.

SOME OPINIONS OF THE IMPLICATIONS OF MALNUTRITION

The effect of malnutrition on population increase is so significant that it is in all our interests to face this before the population problem becomes extreme. Well-nourished families have half or less than half the number of surviving children that poorly nourished families have *(1), (2)*. Of course this is a result not only of nutrition, but of other factors like education, but the evidence is that nutrition is very important. Most people would think that good nutrition means that more children will survive, and so make the population problem worse; but much work has shown that the opposite is true - well-nourished parents are not careless, and produce only as many children as they can foresee to provide for, and their children in turn will have social ambitions which involve a limited family size. *My calculation is that if we could convert all the malnourished into a well-nourished people quickly, we would have a population 10 million less, in 31 years time, than is now predicted.*

It is probable that a malnourished population is a dangerous one, because it is likely to behave in unreasoning ways, it is likely to use violence. There is much evidence in scientific papers on malnutrition to support this view. Scientific work has shown that for long periods such a population is apathetic, slow and dull; but when something comes along to excite it, it behaves in the way I have described *(4)*.

We must pay attention to the scientific work which shows the effect of malnutrition in early childhood on mental development *(5)*. This work indicates that children who are born of malnourished mothers and are themselves malnourished in the first year of life, which is the time when the brain cells are developing, never develop fully. They become retarded, and grow up into the kind of people who will be irresponsible, will themselves produce too many children, and will behave in un-

predictable, unreasoning ways. This is why great emphasis is now put on the nutrition of the mother and the pre-school child.

The cost of treating malnutrition and its effects is greater than the cost of a large-scale programme to prevent malnutrition. Since the effects of malnutrition include making people susceptible to infectious diseases like tuberculosis and gastro-enteritis and pneumonia, we could in the long run save great sums of money which are now spent on the hospitalization of these patients. For instance, Africans are 10 times more susceptible to tuberculosis than whites, and their treatment is very expensive. If malnutrition accounted for only half of this difference, it would still be a very important factor because it would account of 25,000 new cases of tuberculosis each year. In the case of protein-calorie malnutrition prevention would save about 40,000 cases a year (a child with this disease is admitted to hospital for an average of 4 weeks treatment) .

We shall need to do all in our power to prevent the huge population that is now predicted. Some countries can look forward to much greater agricultural production, because they are poorly farmed, and so they will be able to afford some population increase without an increase in malnutrition. But in South Africa our farmers are not poor farmers, they produce as well as they can be expected to produce, and yet we have malnutrition now. So we must use all the methods which cause smaller families. I have already mentioned the effect of improving nutrition on population increase; the other methods are education and birth control. I believe our children will find it difficult to forgive us when they find themselves sharing the country with 70 million others, in 50 years time, when we know now how to prevent this. A vigorous birth control programme on its own, among the poor, would have little success, as has been shown many times in other countries. But if it were joined to an equally vigorous programme to improve health and nutrition, it would not only be far more likely to succeed but would be far more likely to be acceptable.

Within the space of 20 years a vigorous attack on malnutrition in Japan and a birth-control programme, turned that country into one of the very few which has solved its population problem, and at the same time has so improved the skills and productivity of the people that they are beating many European countries in industry. As a nutritionist I believe much of their success is due to the fact that a well-nourished generation has grown up.

WHAT CAN BE DONE FOR THE MALNOURISHED?

(a) In the long run malnutrition as an extensive socio-economic problem, which it is among South African non-whites, *can only be relegated to being an incidental and rare problem, which it is among South African whites, by dealing with the 3 basic causes - poverty, ignorance, and disease.*

(b) It is of course always necessary to treat the overt case of malnutrition.

(c) Prophylactic nutritional supplements should be given to those particularly at risk - infants, children, mothers, the elderly; and particularly to those in families in which malnutrition has occurred; and in geographic areas where malnutrition occurs frequently. Pre-school children are those whose protection is the most important. As regards the mechanism of such schemes, Hansen says: 'No over-all country-wide standardized scheme can be expected to function efficiently, and feeding schemes should be developed on a strictly regional basis. Subsidized local and voluntary endeavour is probably the best method' *(6).*

The supplements that should be given are protein and vitamins. Effective protein supplements are skim-milk powder, and special high-value protein mixtures available commercially. It is a universal experience that it is not sufficient simply to make supplements available, whether free or at low prices, to the kind of people who are liable to malnutrition. Their psychology and ignorance are not sufficiently allowed for. Many stratagems have been adopted to overcome the difficulty, some of them successful for a short period, some of them partially successful in the long run, and none of them applicable on the large scale. The lesson is that the difficulty cannot be tackled as an isolated one: all the factors have been tackled at the same time.

The snags in nutrition education have been shown repeatedly. Painstaking explanation is necessary to prevent misinterpretation and erroneous belief. Constant repetition is essential. All sorts of prejudices must be expected, allowed for, and overcome.

Birth control measures may contribute to a solution of the problem. How much it has ever contributed, and how far it could contribute to South Africa, is quite uncertain. In general, the greater the poverty and ignorance of a population, the less successful are birth control programmes.

WHAT IS DONE FOR THE MALNOURISHED?

1. Government-promoted Schemes.

(a) Maize, butter and bread are subsidized, to the tune of R55.1m. in 1969.

(b) Skim-milk powder is made available by the Dairy Board at 15c per lb. to local authorities; of this the State pays 5c, the local authority 5c, and the parent 5c. The 144 participating local authorities include larger town and city councils; although the scheme is legally available to Bantu tribal authorities, the number participating is small. In general therefore, the scheme is much less available where most needed.

(c) Expenditure from Welfare Funds on special rations, payments and subsidies to homes for the aged, blind and disabled - R0.6m. in 1967-8, plus R0.1m. for pauper relief.

(d) Training of health educators at Turfloop (25 per year).

(e) Dietetics and Home Economic section of the Department of Cultural Affairs has 21 posts for dietitians who work on nutrition education among all population groups and all income levels, in association with municipalities, schools, clinics. Thirteen of the posts are filled.

(f) Nutrition Advisory Services, formed by the Dairy, Maize Milk and Egg Control Boards, participate in nutrition education among all population groups.

2. Hospitals throughout the country treat established cases of malnutrition. Only the mission hospitals (which have about 40% of the hospital beds in South Africa) play any significant part in malnutrition prevention, by instruction of patients and their parents. The extent of this educational function varies. The extreme staff shortage very largely prevents the function from being carried out to an extent commensurate with the problem, so that despite being situated where the problem is greatest, the effectiveness of these hospitals is relatively small.

3. There are numerous charitable organizations engaged in supplementary school-feeding schemes, and infant feeding schemes. Only one, Kupugani, has a country-wide organization, making cheap and nutritious foods available both directly, and to other organizations engaged in malnutrition prevention and treatment. Sales amounted to R1m over the past 2 years. The charitable organizations have a common pattern of structure - a small group of volunteer housewives, with a sprinkling of men who are mostly concerned with committee work rather than

field work, and often a fulltime African nurse. They are occasionally associated with volunteer treatment and birth-control clinics, and raise their money by appeals, from their own pockets, and from fund-raising projects. Since the great majority of such small local organisations are located in or close to white urban areas, their effect is much less felt in the reserves, where malnutrition is most prevalent; moreover, since school children are more readily accessible, their efforts tend to be directed to them rather than to pre-school children and infants.

By far the most effective and comprehensive of such schemes is the Valley Trust, near Botha's Hill in Natal, which is financed by voluntary donations. It undertakes what is probably the perfect combination of approaches to the problem. It is situated in a reserve, has a well-run clinic staffed by 2 doctors and several nurses, is adjacent to a small TB hospital, runs a very active outpatient service with several outlying clinics visited weekly, engages heavily in nutrition education of patients and patients' mothers largely through the African nursing staff trained at the Valley Trust to that end, and has next to the clinic building an agricultural demonstration plot where a fulltime African agricultural demonstrator both grows and demonstrates to the small farmers of the reserves his methods of growing vegetables, raising chickens, etc. There is a mill for grinding mealies, and a cooking demonstration hut. In addition the demonstrator helps small farmers to get going with their own vegetable growing, and helps them build dams stocked with fish. None of the methods require any more capital than is available to the poorest reserve dweller, except that loans for fencing are given. The local community has been turned from a food-buying community to one that sells fresh produce, and the incidence of malnutrition and of infections predisposed to by malnutrition has perceptibly declined.

Two 'seedling' schemes modelled on the Valley Trust have now been planted, one in the Transkei, one in Zululand. An attempt, at Nongoma in Northern Zululand, to transplant Valley Trust practices has failed, apparently largely because of the failure of the demonstrator there to repeat the success shown by the Valley Trust. The key to the success of the Valley Trust without doubt lies in the drive and personality of the founder, Dr Scott, and his agricultural demonstrator, and their choice of methods of getting across to the reserve dwellers - by example, never command, by helping them only to help themselves, never by hand-outs, by working through African leaders (nurses, demonstrators), not by working directly, by working slowly, not trying to achieve rapid success, by allowing for the

psycho-social attitudes of the African, not by superimposing self-contained Western concepts destructive of indigenous beliefs, by allowing for lack of any capital, not presuming an ability to purchase materials, and by tying education and prevention to treatment.

WAYS TO PROMOTE GOOD NUTRITION

1. *Support for Existing Organizations*

Support is best given to any institution (e.g. charitable organization, mission hospital) which will set up an organization to function along the lines of the Valley Trust, in reserve areas. Next best is support of nutrition and agricultural educationists attached to mission hospitals even though a full Valley Trust-type unit is not set up; next would come support for charitable organizations engaged in malnutrition prevention and treatment of pregnant women and infants under one year of age; next best, support for such organizations working with pre-school children; next best, support for such organizations working with school children providing in each case they pay as much attention to instruction of parents, as to handing out supplementary foods, and providing again that such instruction is not only in what food to eat but how to grow it.

A comprehensive list of mission hospitals and their facilities is available; a comprehensive list of all small local charitable organizations is not available but something approaching it may be obtained from Kupugani.

Support for the Productivity Council which campaigns for better wages and provision of good nutrition for workers in industry, on the basis of better productivity, is also important.

2. *Possible Programmes*

From previous experience of reactions among different groups, usually religious groups, to whom the facts of malnutrition have been put, the following appear the most 'popular' positive suggestions for such groups to pursue:

(1) Financial support for the education of an African nutrition educator at the Valley Trust, the nutrition educator returning to his own area, mission hospital or feeding scheme.

(2) The seeking out from local African hospitals of patients suffering from diseases of malnutrition: their cases can then be brought to the attention of the churches of whom they are members, or of the local church of their area.

(3) Malnourished children: the employers of their parents can have the situation put to them, and the benefits to productivity of good nutrition pointed out.

(4) Urging authorities to participate in the milk powder distribution scheme (town council, Bantu tribal authorities).

(5) Publicity in the press of the number of cases of malnutrition seen each month in local clinics and hospitals. One idea may be for individuals to act as 'data collectors' for different regions: they would then establish contact with all case-seeing organizations in their regions, obtaining if possible not only numbers but type of malnutrition and underlying reasons for it; and then remitting the information to local newspapers.

(6) Share-holders might ask at company annual general meetings for information about wages paid to non-white workers, and for such information to be included in the annual report.

(7) Large food-selling stores and supermarkets might place at their exits collecting bins for food, into which housewives buying their family supplies can put donations to local feeding schemes.

SEE TABLE ON NEXT PAGE

APPENDIX I

STUDY OF 30 HOUSEHOLDS IN 4 INCOME CATEGORIES, BONTEHEUVEL, 1965

GROUP	Total income Rand/week	Father's education not beyond Std. 3	Mother's education not beyond Std. 3	Average no. of children per family	Families with 7 children or more	Meat eaten only 1-3 x/week by children
A	14.57	15/30	15/30	7	20	13/30
B	17.88	11/30	9/30	6	8	6/30
C	20.99	4/30	8/20	4	2	4/30
D	25.86	6/30	5/30	3	1	2/30

	No eggs eaten	Social stability of household graded as good	Social stability of household graded as poor	Children Underweight	Children stunted	Clinical signs of protein-calorie malnutrition present
A	16/30	6/30	13/30	22/30	20/30	6/30
B	12/30	13/30	3/30	20/30	17/30	4/30
C	7/30	15/30	4/30	17/30	13/30	1/30
D	8/30	13/30	4/30	12/30	6/30	0/30

	No. of children taken separately to hospital	Repeated hospital treatment for diarrhoea	Children having multiple illnesses	No. of children dying before 5 years of age
A	22/30	14/30	16/20	23
B	20/30	11/30	10/30	8
C	9/30	3/30	8/30	0
D	8/30	2/30	5/30	5

APPENDIX II GENERAL DESCRIPTIONS OF DISEASES OF MALNUTRITION SUFFERED BY VARIOUS GROUPS

1. *Non-white infants:*

Kwashiorkor/marasmus

These are due to deficiency of protein and calories and in which there may be mild vitamin deficiencies which are not however primary causes of the disease. Marasmus is produced by severe deficiency of calories in the presence of some deficiency of protein, occurring most usually in the presence of a complicating infection.

The signs of fully developed, i.e. 'stage 3' kwashiorkor are: apathy, listlessness, mental sluggishness, coldness, swelling of the body due to accumulation of water, peeling of the skin, abnormal hair growth and colour. The mortality rate among those admitted to hospital is about 30% and the average length of admission necessary for recovery is 4 weeks. It is treated by a high-value protein diet, and vitamins.

Complicating gastro-enteritis causes severe loss of water and salts and instead of swelling the infant has a dry, very dehydrated appearance. The mortality rate among those admitted to hospital is much higher. The average length of admission necessary for recovery is about 5 weeks.

The residual abnormalities after overt kwashiorkor/marasmus has occurred are permanent growth stunting and mental stunting. In tests to determine whether any particular feature of intelligence is particularly affected, non-verbal ability has been found to be particularly affected, verbal ability to a lesser extent. Giok et al. *(7)* and Pek et al. *(8)* found in Indonesia that intellectual development of children could be predicted with a high degree of accuracy on the basis of their nutritional status during the preschool years. It has now been established that the period when malnutrition causes the irreversible mental stunting, is in the foetus and up to 6 months of post-natal life.

2. *Non-white children:*

Late onset kwashiorkor, marasmus, pellagra.

Growth retardation, and, at times of famine, calorie deficiency (Vitamin A deficiency, scurvy and rickets occasionally). Pellagra is a disease due to lack of nicotinamide, usually complicated by stage 1 or 2 deficiency of other vitamins and proteins. Its fully developed picture consists of abnormality of the skin (hence pell-agra = rough skin), dementia, and gastro-intestinal changes causing diarrhoea and poor absorption of nutrients. Sunlight provokes the skin damage. Mortality is low for hospital admission cases, and the great majority are therefore not admitted

but are treated by vitamins. Though the point is not well documented, it is possible that permanent residua occur as in kwashiorkor in the form of permanently deteriorated mental capacity.

Vitamin A deficiency causes eye, skin and bone abnormalities. The eye lesion may progress to permanent blindness. Treatment is fish-liver oils: there is no mortality.

Scurvy is a disease due to lack of ascorbic acid (Vitamin C), often associated with lack of iron. Its fully developed picture consists of tendency to easy bruising, haemorrhages into skin, especially around hairs, haemorrhages under the outer layer of bones, poor healing of wounds and deficient bone growth, severe gum infections, and a tendency for the gums to bleed. It is treated by Vitamin C and mortality is low. Residua are not usually considered to occur.

Rickets is a disease due to lack of Vitamin D which results in too little calcium being absorbed. As a result bone growth is abnormal, and there may be interference in the function of nerves. Sunlight protects from the disease by promoting the amount of Vitamin D in the body. It is treated by Vitamin D, and has a low mortality. It may leave the bones permanently deformed and/or stunted, and if these include the bones of the pelvis in a female, complications in child-bearing may follow years later. Other residua are not known with certainty.

Growth retardation is a non-specific result of malnutrition - i.e. it cannot really be tied down as the specific result of one or another deficiency. If anything it is due to calorie and protein lack. It is likely to appear together with any of the overt deficiency diseases, but may occur without any of them. In such cases one may well suspect stage 1 or 2 of one or more of these diseases to have been present at some time. It is treated by administering vitamins and as far as possible, a good diet.

Calorie deficiency occurs as part of the entities kwashiorkor/marasmus and of general growth retardation; but it may occur clearly and acutely especially at times of famine. There is then wasting of flesh, apathy and dullness, and marked liability to infection.

3. *Elderly Non-white folk:*

Pellagra (scurvy, osteomalacia, very occasionally).

The pellagra of old folk differs from that of the young in that the effects on the brain are more exaggerated while those on the the skin are somewhat less conspicuous.

Osteomalacia is simply rickets occurring in the mature: it differs from rickets in that it cannot cause stunting, since growth is complete.

Treatment for elderly folk as for all others should include - but never does - the wholesale rehabilitation of the patient; as an older person he is most unlikely to be able to rehabilitate himself by his own efforts; and the deterioration in his social and economic situation which results in overt disease will be exaggerated by the disease itself.

4. *Non-white women of child-bearing age (say 20-40)*

Pellagra, and 'African cardiomyopathy' (this disease is not proven to be of nutritional origin, but there is a body of evidence in favour of the relationship).

The demands of child-bearing, possibly allied to the human tendency for a mother to give what food is available to her children, make these diseases relatively common in this group. 'African cardiomyopathy' is a condition in which heart failure occurs; it is a disease predominantly of maize-eating communities. It is usually fatal, in the long run. Though it is placed and described in the group of child-bearing women, the disease does occur in men, and in women of later age. If it is nutritional in origin, it is likely to be the result of protein malnutrition in some form.

5. *Coloured adults, especially men*

Beri-beri, pellagra.

Beri-beri is a disease due to lack of thiamine; it causes malfunction of nerves, occasionally mental abnormality, and heart failure. It is treated by thiamine, and has a low mortality, though it frequently recurs. Residua are not known with certainty to occur, but it is believed by some that repeated attacks leave chronic malfunction of the brain, nerves and heart. Beri-beri is associated particularly with chronic alcoholism, and is found in Coloured folk particularly because of the free availability of wine and spirits and perhaps because of the tot-system.

APPENDIX III FREQUENCY OF DISEASES OF MALNUTRITION IN SOUTH AFRICA

1. *Protein-Calorie Malnutrition (PCM)*

(i.e. Kwashiorkor plus Marasmus).

A questionnaire survey was done by members of the National Nutrition Research Institute (NNRI) of the CSIR as to incidence *(9);* only about 200 doctors returned the questionnaire. Over a 2 month period they had seen 7900 patients with PCM. The rate of notification of kwashiorkor at that time was about 1200 per month. Therefore assuming these doctors were representative

of others in the country, in their tendency to notify a case they had seen, the incidence of PCM was over 47,000 in that year. In the last year (1966) during which kwashiorkor was notifiable, 11,000 cases were notified and the incidence of PCM would be calculated as 43,000. The authors themselves calculated the incidence in the year of the survey to be Kwashiorkor 36,000, Marasmus 29,000 (therefore PCM 65,000).

Dr. Neser of the National Nutrition Research Institute states in the ***South African Medical Journal*** *(11)* that nearly 80% of the Bantu children investigated in their (Pretoria) survey came from homes where the family income was too low to permit the purchase of adequate food supplies; Potgieter *(12)* says that 75-85% of Bantu families in Pretoria have an income lower than the minimum needed for basic expenses. He concludes his article: 'these findings suggest that at least 80% of school-going children from Bantu households in Pretoria suffer from malnutrition or undernutrition'.

Professor Dawel, Professor of Paediatrics at Pretoria, calculates that for every florid case of malnutrition brought to the attention of the health authorities, 8 or 9 potential cases lie hidden, to be revealed only when some intercurrent infection precipitates the florid form of the disease *(13)*.

The assessment from the Department of Paediatrics at the University of Cape Town is that there are 40 cases of malnutrition for every case of kwashiorkor seen by doctors at clinics *(14)*.

Dr. Pretorius of the University of Pretoria Department of Paediatrics concluded that 'although the exact incidence in South Africa is unknown, there exists overwhelming evidence that it is extremely prevalent among the Non-white section of our population and constitutes a major public health problem' *(15)*.

The results of this malnutrition can be seen not only in disease and stunting, but in death rates. Leary and Lewis reported on death rates in a typical Bantu reserve, in Sekhukhuniland *(16)*: 'At least 50% of all children born alive fail to reach their fifth birthday and the majority of those who die do not reach their 3rd birthday'.

Richardson says that a high mortality rate for the ages 1-4 years is accepted as reflecting an unduly high prevalence of PCM *(17)*. The Bantu 1-4 year mortality rate she recently gave is 43 per 1000 live births per year for urban and 47 for rural Bantu, whereas for Whites her figure is 2.

As regards stunting, Leary showed that the Bantu reserve children are so stunted that their *average* height and weight

are less than the figures which separate the shortest and lightest 3% of American children from the tallest and heaviest 97% *(16)*. du Plessis, Wittman and Fellingham found that 86% of Bantu children in one school were malnourished as judged by weight *(18)*.

Several authors (e.g. Kahn and Freedman) *(19)* have shown that privileged Bantu children have the same mean weight and height figures as privileged American children.

Among Coloureds in a sub-economic housing scheme near Cape Town only those children coming from families with a total income of more than R21 per week on average, showed little stunting. Below that the great majority did *(1)*.

As regards ***adults***, Galli reports a survey in Pretoria showing that among the families of workers employed by a large transport concern, 70% had a diet deficient in milk, 30% were deficient in vegetables, 80% deficient in fruit *(20)*. The extent of malnutrition was shown by the fact that after a nutrition and health education campaign, the accident rate was decreased by 30%, absenteeism by 65%, wastage by 25% and the numbers needing employment decreased because of the increased productivity that resulted.

The occurrence of 3 frank famines in recent times in South Africa (Eastern Transvaal, Zululand, Lesotho) is evidence of looming disaster.

2. *Pellagra*

(nicotinamide deficiency).

From the survey responded to by the 200 doctors mentioned previously, the authors concluded that the incidence of pellagra in South Africa was 26,000 in 1 year.

Dr. Quass, at that time Director of the NNRI, reported that it is not unusual in the summer months to see pellagra in 50% or more of the patients who attended medical clinics in Bantu reserve areas. He states that more than half of all Bantu admissions to the mental hospital in Pretoria are accounted for by pellagra *(21)*. du Plessis et al. from NNRI, found deficiency or near deficiency of nicotinamide in the majority of Bantu school children in Pretoria *(22)*. In the group 7-11, 53% were nicotinamide deficient.

Dr. Neser reported that at Hammanskraal about 50% of patients seen in October/November 1962 had pellagra *(11)*. Nel and du Plessis found 60% of rural and 47% of urban Venda males to be deficient in nicotinamide *(23)*. In 1969 du Plessis et al. reported in their Bantu school children survey that between 80 and 100% of the children were deficient *(24)*.

7. *Beri-beri*

(Thiamine deficiency)

At Stellenbosch, 25% of Non-whites with heart failure were reported to be thiamine deficient. In Johannesburg, about 20% of cases of 'African cardiomyopathy' were found to be thiamine deficient *(32)*.

Folic acid and Cyanocobalamin deficiencies

The incidence is not known but deficiencies are fairly rare.

3. *Riboflavine deficiency*

du Plessis et al. reported in 1965 that 15% of Bantu children from Pretoria primary schools had deficiency of riboflavine; in 52% it was near deficient *(25)*. For Indian school children the near-deficient figure was 36%, for Coloureds 57%. In 1969 du Plessis et al. found that between 70 and 80% of children in a Bantu school near Pretoria were deficient in riboflavine *(24)*.

4. *Vitamin A deficiency*

du Plessis and de Lange found that between 10 and 20% of Indian and Coloured children had latent deficiencies of Vitamin A *(26)*. Healthy children were not found to have biochemical evidence of deficiency.

Konno et al. *(27)* in Cape Town also found no deficiency in normal children, but in those who were underweight for their age, or had kwashiorkor or marasmus, there was a significant amount of deficiency. In Johannesburg 10% of cases of PCM had either biochemical or clinical evidence of deficiency of Vitamin A *(28)*. In Pretoria 35% of cases of kwashiorkor had Vitamin A deficiency, as did 26% of pellagra patients *(29)*.

5. *Rickets*

(Vitamin D deficiency)

The 200 doctors mentioned above reported seeing nearly 400 cases in 2 months. In Cape Town 17% of Bantu and Coloured infants were reported in 1969 to have definite rickets *(30)*.

6. *Scurvy*

(Vitamin C deficiency)

According to Dr. Hansen of the University of Cape Town, frank Vitamin C deficiency is relatively rare in South Africa *(31)*. Nel and du Plessis found however, that 38% of rural and 41% of urban Venda males could be regarded as being in a low range of Vitamin C nutrition *(23)*.

8. *African cardiomyopathy*

It is one of the commonest disorders causing heart failure in Africans, but its incidence is not known. It occurs only in Africans.

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POVERTY

h.l. watts

THE DEFINITION of poverty goes back to the closing years of the nineteenth century when Booth undertook his famous study of the life and labour of the people of London, revealing a serious amount of *obvious* poverty in that city. In York a wealthy factory owner, Rowntree, who was concerned about the welfare of his workers, wished to measure the amount of poverty amongst them. He was the first person to try seriously to define poverty and to measure it. His basic definition has stood the test of time, although his methods have been improved and refined. For Rowntree, as for sociologists at the present time, a household is in poverty when its income, however wisely used and however carefully budgeted, is inadequate to meet the basic costs needed in the *short-run* for healthy survival and decency. There must be, at a minimum, sufficient food, clothing, fuel and lighting, personal care and household cleansing, and shelter for the family.

Rowntree turned to physiologists for minimum diet sheets in terms of the age and sex of the individuals in a household. This is still the procedure followed today, and in recent South African studies of poverty, minimum diet sheets for various age groups by sex, prepared by the Department of Agricultural Technical Services, have been used.

The suggestion is sometimes made that Africans follow a

diet which is cheaper than that of the Whites. A study of this was undertaken almost twenty years ago by the South African Council for Scientific and Industrial Research, which found that using relevant African items of diet did not materially alter the cost. Whatever race is concerned, under western urban conditions it costs the same to provide the minimum diet for a family.

Since the poor cannot buy adequate clothing, the only way to solve the problem of assessing the minimum clothing requirements of a household is to select a group of families who have the minimum standard of clothing deemed necessary for western conditions. A study of the actual expenditure of such families indicates both how long various garments last, with careful budgeting, and what amount of clothing is required. Rowntree used this system, which we follow today. Taking the cheapest current prices one can arrive at accurate assessments of the clothing which a family requires.

The minimum amounts of light, fuel for cooking and heating, and cleansing materials for the house and the individual are assessed in a manner similar to clothing - by undertaking budgetary studies of households with a very low income who still manage to appear decent. By listing the items required and the frequency of purchase, and then costing these items at the lowest prevailing costs in a town, one can accurately estimate the minimum required.

Very poor people also require shelter - and being poor they have to rent their houses. Rowntree hit upon the idea, which is still followed today, of taking as a minimum cost of shelter the rent paid by the poor. This is on the assumption that the poor find the cheapest lodgings available. The rents used to calculate the poverty datum line in South Africa are those laid down by the local authorities or the Department of Bantu Affairs, as the case may be.

Finally, the cost of transport - the cheapest form of transport available - is taken into consideration as a minimum essential cost.

If we add up for a given household the cost at lowest current market prices of the minimum basic amounts of food, clothing, fuel and lighting, and personal and household cleansing, plus the actual cost of rent and transport for workers to and from work, then we arrive at what is known as the 'secondary poverty datum line'. This is the minimum income under *theoretical conditions in the short-run* the household requires to maintain health and decency under western conditions. If the household income is equal to or greater than this secondary poverty datum line, then

the family is not in poverty. Where the income falls below this figure the family is defined as being in poverty.

The only difference between the 'primary poverty datum line' and the secondary poverty datum line is that in the former household rent and transport costs have not been added in. It is in fact the first stage in calculating whether or not a household is in poverty, and is built up from the tables for the various components of food, clothing and so on mentioned above, according to the age and sex of members of a household. Rent and transport costs cannot be obtained from tables, but depend on what an individual household actually has to pay.

It must be emphasised that the technical measurement of poverty by means of the poverty datum line is purely *theoretical.* The method assumes that people budget perfectly, and that they shop at the lowest current prices. For the poor this is however, often not possible. For instance, African workers cannot always afford to go into the big city to the cheap supermarkets, then they have to buy in the township shops - which being smaller concerns with smaller turnovers have higher prices. The poor also often buy smaller amounts of given commodities than the wealthier groups, and we know from personal experience that smaller packets of foodstuffs are pro rata more expensive than larger packets. Thus, in practice most if not all the poor families do not pay the lowest prices which are used for calculating the poverty datum line for a particular town or city. Furthermore, the poverty datum line leaves out very many items which in today's world an individual has to pay for either in the short-run or long-run, whether he likes it or not. Pots and pans, furniture, bedding, all wear out. The poverty datum line does not allow for their replacement. People get sick, and find they have to pay doctors' and chemists' bills. Children have to be educated, and their books and other items must be paid for. Sometimes one wants to write letters, and the stationery and stamps must be bought; if one wants to give presents on birthdays, one has to pay for them. Professor Batson of the University of Cape Town has commented that the poverty datum line 'is perhaps more remarkable for what it omits than for what it includes. It does not allow a penny for amusements, for sports, hobbies, education, medicine, medical or dental care, holidays, newspapers, stationery, tobacco, sweets, gifts or pocket money, or for comforts or luxuries of any kind, or for replacement of household equipment and furniture, or for hire-purchase or insurance or saving .... it is not a 'human' standard of living. It thus admirably fulfils its purpose of stating the barest minimum on which sustenance and health can theoretically be achieved under western conditions' *(1).*

It is worth bearing in mind how conservative a measure of poverty social scientists use. It could in fact be criticised as a measure which under-estimates the actual amount of poverty, but social scientists have generally felt it wiser or err on the side of under-estimating rather than over-estimating the problem.

THE AMOUNT OF POVERTY IN SOUTH AFRICA

There have been no studies on poverty covering all racial groups in South Africa, in both rural and urban areas. Studies have been undertaken in either some, or a representative cross-section, of, urban areas, and from these it is possible to arrive at broad estimates of the amount of poverty in towns. On the basis of a study undertaken fifteen years ago, perhaps only 2% or so of the whites in towns are below the poverty datum line, if the amount of poverty has not increased significantly since the survey was done *(2)*.

By contrast, probably nearly half of the Coloured people are in poverty. This is also estimating on the basis of studies more than a decade old *(3)*.

Evidence in regard to poverty amongst Indians is from two recent studies undertaken by the Department of Economics at the University of Natal. In a study published in 1970, it was estimated that about one-fifth of the East Rand Indian community were below the poverty datum line *(4)*.

The Indian communities outside Natal consist largely of traders, who tend to be amongst the better-off class, and so poverty is likely to be greater amongst Natal Indians. In Durban, a recent study has found that 'approximately 50-60% of households had incomes below the cost of living minimum' - that is below the poverty datum line plus an allowance of 30% for other items *(5)*.

Unfortunately the figure for the number of Indian households in Durban below the poverty datum line itself is not given, but estimating from the above figures, and graphically compensating for the 30% additional expenditure above the poverty datum line, it seems that about two-fifths of Durban Indian households are below the poverty datum line. As the majority of Natal Indians live in Durban, this suggests that the figures for Natal are not likely to be very different from Durban's. Probably from one-fifth to two-fifths of Indian households in the Republic as a whole are below the poverty datum line, depending on the particular town or city concerned. Finally, in regard to the African population, various studies during the last two decades suggest

that in the towns and cities from one-third to more than two-thirds of the Bantu population are in poverty, with the position being worse in the smaller towns where wages are lower but the cost of living is very much the same as in the cities *(6)*.

MINIMUM WAGE LEVELS

The basic issue is how to determine what are the minimum levels below which wages should not fall. It follows from the definition of poverty used by the social scientists that as a very first step, the minimum wage for any worker should be that which allows him to reach at least a poverty datum line. That is to say, minimum wages are those wages which at a minimum allow a household income to equal the poverty datum line.

The poverty datum line for a household depends on the number of members of the household, and their age and sex composition. Working with a family of a man, woman and four children, as an example, and assuming that the man is a manual labourer, and the children consist of a boy aged 13 to 15 years, a girl aged 10 to 12 years, and two children aged 7 to 9 years, then in 1966 in Durban the primary poverty datum line would have been R53.72. This is made up from the Table published for Durban for 1966, as follows:

Age and Sex	POVERTY DATUM LINE COMPONENTS				
	Clothing	Fuel and Cleansing	Total Clothing and Fuel and Cleansing	Food	Total all Items
	MONTHLY COSTS				
	R	R	R	R	R
I. *Children:*					
Under 4 years	0.62	0.54	1.16	3.54	4.70
4 - 6 years	1.25	0.54	1.79	3.89	5.68
7 - 9 years	1.25	0.54	1.79	4.85	6.64
10 - 12 years	1.88	0.54	2.42	5.26	7.68
II. *Boys and Men:*					
13 - 15 years	1.88	0.54	2.42	6.41	8.83
16 - 20 years	2.81	0.54	3.35	6.99	10.34
21 + years - manual workers	2.81	0.54	3.35	7.74	11.09
21 + years - other workers	2.81	0.54	3.35	6.01	9.36
III. *Girls and Women:*					
13 - 15 years	1.88	0.54	2.42	6.12	8.54
16 - 20 years	2.50	0.54	3.04	6.01	9.05
21 + years	2.50	0.54	3.04	5.57	8.61
Household as a whole - Cleansing, Fuel and Lighting for all members			R4.23		

Source: H.L. Watts (1967): *The Poverty Datum Line in Three Cities and Four Towns in the Republic of South Africa:* Fact Paper No. 1, Institute for Social Research, University of Natal, Durban, p. 20.

The figure of R53.72 is made up by reading from the Table as follows:

R11.09 + R8.61 + R8.83 + R7.68 + R6.64 + R6.64 + R4.23 = R53.72. To transform this into the Secondary Poverty Datum Line the cost of rent and workers transport to an from work must be added. Let us assume that rent equals R5.50 per month, and with both husband and wife working, workers' transport is R6.00 per month. This gives a total Secondary Poverty Datum Line of R65.22. This then is the minimum income theoretically which in 1966 the household quoted should have had, and the combined wages of husband and wife should have reached this level at least. Due to inflation, costs have risen on an average of 3 to 4% during the last few years, and we can estimate what the 1970 figure for the household income should be if we use 3% per annum increase in costs. For the household quoted, the income should be at a minimum R73.42. If the household had one child less, (omitting the youngest child) then doing the same calculation, in 1970 the minimum income of the household should be R65.93.

It has already been shown that poverty is mainly a problem of the Indian, Coloured and African populations in South Africa. Households of five to six persons represent the average size in these populations. Thus, we can have some idea of what minimum wages should be if we say that from the above calculations they should in 1971 be such as to allow the average family with husband and wife working a total income of somewhere between sixty-six to seventy rands per month. As women's wages are usually lower, we can fairly safely assume that for this reason and also because wives with young children can often only work half days, that the wife's contribution to the household income represents a third of the total. Thus if the man has to earn two-thirds of the household income, then in terms of the examples given above in 1970 his minimum wage would have to be between forty-four and forty eight rands per month, or ten to eleven rands per week. With incomes less than this, unless his wife earned more than a third of the total income, the household would be in poverty.

These figures give some idea of what the minimum wages should be for married workers in South Africa in 1971. It must be stressed that being based on the poverty datum line, they are very conservative. Because the poverty datum line excludes the cost of rent and workers transport to and from work must be

so much, in practice a household's income has to be considerably above that indicated by the line before the amount spent on the basic components of food, clothing, heating, lighting, cleansing and personal care, reach the minimum levels laid down. Obviously other items not included in the poverty datum line absorb some of the household income. A household with an income exactly equal to the poverty datum line in fact does not have the basic minimum amount of food and clothing, as money has to be spent on other items to the detriment of these two. Consequently the health of the family suffers. Batson has found that only when the income of the household reaches about one and a half times the secondary poverty datum line, is the household actually able to spend on food and the other components the minimum required. Batson calls this the 'effective minimum level' *(7)*.

It is thus far more realistic in practice to use the effective minimum level than the poverty datum line itself as a basis of determining poverty and determining minimum wage levels. This not only makes the estimates of the amount of poverty in South Africa higher, but increases the minimum wage levels for married workers by 50%. For a man they are then somewhere between fifteen to seventeen rands per week.

The suggestion that the effective minimum level should be taken as a level for measurement of poverty and the determination of minimum wages is supported by an examination of the paper by Wittmann et al, *(8)* which shows that generally the diet and other features of a family of six reached a satisfactory level only when the income was an average of R20.99 per week in 1964 - 1965. This income level is about one and a half times the poverty datum line at that period for a family of this size, and so the findings support Batson's contention.

The wages paid to domestic servants are generally the lowest in the country, and therefore it is necessary to devote some attention to a minimum wage as defined by the poverty datum line or the effective minimum level. Part of the problem is the great difficulty involved in estimating accurately the value of income in kind. The domestic servant who has no family commitments whatsoever, and is given free board and lodging and a fairly substantial supply of clothing by an employer, is not in poverty. It is safe to assume however, that the large majority of domestic servants have family commitments, and their income represents an important part of some household's income, either in the townships or in the homelands, and thus their wages must meet more than their individual needs. A domestic servant who received no food and no clothing from her employer, lived at home in a township, and who as one of

two breadwinners in a family of six had to earn one third of the total household income, her income would need to be about R24.47 per month. If it is assumed that the average domestic servant receives five-sixths of her food requirements from the employer (on the grounds that during off times the servant may have to provide her own food at some home in the township), that she received half of her clothing from her employer, and had lower transport costs because most of the week she stayed on her employer's premises, then the minimum income necessary could be reduced by the corresponding savings to the household which she has to help to support. In terms of the poverty datum line this would bring the income down to about R21.00 per month. For the effective minimum level, the income figure would have to be about R32.00 per month. If we include meal times as part of the working day, then for a 50 hour week, these monthly figures work out at 10 cents per hour for the poverty datum line and 15 cents per hour for the effective minimum level.

To give one other example: a domestic servant receives free board and lodging from her employer, has three illegitimate children staying with relatives in the homelands somewhere, and is fully responsible for paying for the support of these children since the father is not contributing maintenance. Her income would need to be about R30.00 per month, assuming that the the children received free lodging but not free board with the relatives. The income required is thus higher than when she has to provide only one third of the total household income, for she is the sole supporter of the children. The effective minimum level in this case is about R45.00 per month. These figures, together with the previous ones, give some idea of what the *poverty datum line would demand as a minimum necessary income* for the typical domestic servant.

CAUSES OF POVERTY

Poverty is found in every country, especially in the undeveloped and the developing countries. A considerable proportion of the poverty in South Africa amongst non-whites is the same type of poverty that occured in Europe during the eighteenth and nineteenth centuries, following on the industrial revolution and the movement of rural people into the towns. This is the type of poverty that occurs in countries undergoing the first phases of industrialisation. A major cause of such poverty is low wages. Other causes include lack of education, lack of specific training and skills for urban living, and lack of adequate knowledge of budgeting and diet under urban conditions. For a

fuller discussion of the causes of poverty see Watts and Lamond (1966) *(9)*.

It is not possible to give an exact answer to the important question to what extent poverty in South Africa is due to the division of the society along racial lines, with inequalities and economic and social opportunities associated with race. A considerable proportion of South Africa's poverty is the result of industrialisation and rural-urban migration. There is evidence, however, that the apartheid structure of our society is slowing down the rate at which poverty is being ended. Some poverty may result from the economic barriers of job reservation and from inequalities in educational and occupational opportunities. In Europe, and in South Africa amongst the poor whites, poverty was wiped out as more and more of the workers moved into the upper working class and then later into middle class ranks, in response to the economy's need for workers above the labouring level. South Africa is experiencing critical manpower shortages at levels above the labouring class, but non-whites are denied the full opportunity to climb up the economic scale. Likewise wide disparities in educational opportunities and the relative cost of education for the different races, are handicapping the non-whites, particularly Africans. The eradication of poverty would proceed far faster if there were not the present barriers to the economic advancement of the non-white.

Another factor is the present undeveloped state of the African homelands. It is doubtful whether these homelands would have developed more rapidly than they are doing if there had not been apartheid; in fact, it seems likely that they would have developed even more slowly in the absence of the present emphasis on separate development. Be that as it may, there has been a massive influx into the towns of labour from the homelands, in part because these rural areas are unable to support their population. This in turn has led to a plentiful supply of labour at the lower grade levels open to all non-whites. There has thus been no scarcity of labourers to help push up wages, which in many instances are still below the poverty datum line. Therefore the challenge of improving wages has not been accentuated by economic factors of supply and demand, and has in many instances depended upon the conscience of the employer. From this point of view the economic development of the homelands will not only assist in directly solving the problem of poverty in the rural areas, but by providing a market for African labour in the homelands and thereby reducing the over-abundant supply of unskilled labour, will indirectly lead to rising wages and therefore less urban poverty.

Generally speaking, non-whites in South Africa do not have the opportunity for the development of trade unions and for trade union bargaining along the lines accepted in Western countries. The effect has again been to reduce the pressure for increasing non-white wages to a level above the poverty datum line, and this has also retarded the solution of poverty, for we must remember that in Europe the trade unions played an important role in achieving living wages for workers.

It is relevant to point out that in combating poverty today South Africa has a handicap when compared to Europe during the last century.

> *'The industrial revolution in Europe last century, and earlier, was at a stage of technological development where a large unskilled labour force could be used. In South Africa today, technological advancement means that more and more unskilled tasks are being replaced by the machine. Automation is furthering this process. This means that the need to educate and train the Bantu for higher skilled jobs, and to make such jobs available, is going to become more and more urgent as South African industry progresses - and will be far more urgent than it ever was a century ago in Europe, or even during the early part of this century in America when large numbers of a predominantly rural population migrated from Europe to the North American continent' (10).*

In other words, Europe had large-scale poverty at a time when its technological development allowed it to use large numbers of unskilled workers in industry. South Africa, at a more technologically advanced level, is increasingly going to require fewer unskilled workers, and relatively more skilled workers, and this will make more urgent demands on the society to educate and train the poor for better positions in commerce and industry.

SUPPORT FOR EXISTING WELFARE PROGRAMMES

There is real value in supporting existing programmes for combating and alleviating poverty. This is one of the ways in which poverty must be tackled, - only one of the ways, for a multi-pronged attack is required. (For a detailed discussion on this see Watts and Lamond (1966): op.cit., chapters 4 and 5).

(i) Need to find out which organisations operate in a particular area

The organisations working in the field of poverty vary from one area to another, so that it is not possible to give a complete list. One of the challenges facing the individual in a particular district, town or city, is to discover the organisations there and the nature of their work, before deciding which to support. This could be a study project for a church congregation.

When an interested group of individuals wishes to do something about poverty in a local situation, they could form a study group and invite knowledgeable speakers such as the director of the local Community Chest, or the chairmen or secretaries of various organisations in the area, to address them. This would give members of the study group a picture of the local situation. Subsequently the study group could turn into an 'action group', working on the basis of the information they have gathered, and directing their efforts to the area of greatest local need.

Fund-raising can only be undertaken by registered welfare organisations and the churches. The government's policy is that welfare organisations for non-whites must have committees composed of members of the race group concerned. This does not stop members of other races from assisting with the work of the society but it does affect formal control and direction.

(ii) Efforts in the field of poverty must be guided by knowledgeable persons

In most, if not all, social services the work of well-meaning but untrained laymen can have unfortunate results. New ventures must be guided by trained personnel, while existing ones must use knowledgeable persons to direct their work. It is essential to observe this rule. When launching a new welfare effort interested persons should first contact existing organisations elsewhere - there is no point in making mistakes which could be avoided by getting advice first of all from experienced workers.

(iii) Feeding schemes

In probably all the cities in South Africa, and in some of the towns, there are feeding schemes of one type or another. These schemes are often hampered by shortage of money and of workers willing to devote sufficient time to organising the preparation and the distribution of food and to fund-raising. Actual feeding sometimes takes the form of school feeding. Sometimes it takes the form of special dietary supplements (such as 'Pronutro' and fortified mealie-meal), handed out to very poor families who have been previously identified by some type of case in-

terviewing; while sometimes either instead of, or in addition to, the above type of feeding, there are soup kitchens (such as those organised by Kupugani) which are open to all who wish to buy food.

The supply of clothing is very often associated with this type of organisation. In such cases there is scope for the making of clothing, and the collection of second-hand clothing to be given to the very poor. It is always necessary to identify by careful home visits which families are the most deserving.

(iv) Creches, orphanages and child welfare societies

Services to the parents of poor children are important, providing opportunities when range from committee work and fund-raising for orphanages, creches, and child welfare societies to the creation of such bodies in areas where there is a need. There are also opportunities for visiting children in orphanages and taking some of these children into one's own home for holidays.

(v) Education

Education and training are essential if poverty amongst the rising generation is to be wiped out. This has been made amply clear by the solution of the poor white problem in South Africa. Half of the problem of poverty is the lack of skill for urban and industrial living. Different organisations in different areas have different schemes for assisting in the education of children from poor families. Service can be offered in the form of making donations, or raising money, as well as by committee work and case work (visiting schools and/or homes to gather information about possible bursars). The South African Institute of Race Relations is one of the organisations involved in assisting education of children, and others include some branches of Rotary, church groups, and so on.

There is a need in many areas to start an organisation interested in educating children of the poor.

(vi) Voluntary agencies in the socio-medical field

The poor need the assistance of voluntary and statutory agencies in the socio-medical field. Organisations such as Cripple Care, Bantu Blind and other blind societies, the mental health society, S.A.N.T.A., the society for the deaf, child-care clinics and associations for maternal and family health (very often family-planning organisations), all need support. This support can take the form of willingness to do committee work and to help organise things behind the scenes, as well as fund-raising and planning for future efforts. Children's centres and child guidance are rare. However there is a great need for them,

but as yet they are found only in the larger cities. Typically they need far greater support than they get, and are usually beset by a host of financial problems. Unless they are supported financially they cannot help poor families free of charge, or at very nominal rates. Agencies dealing with the aged, alcoholics, and youth, are also important as it is particularly amongst the poor that their services are needed the most.

(vii) Health education

If the poor are to combat malnutrition, it is essential that they make the best use of their limited budgets. As with family-planning, health education is a highly specialised field not for the rank amateur, as far as case work and group work is concerned. Nonetheless the amateur can help behind the scenes by fund-raising and organising. Where organisations are not in existence, well-meaning laymen can get them started and can do their best to recruit the services of trained workers to guide the activities of the organisation, and to undertake education and counselling.

There are official health educators in all larger towns, associated either with the Department of Public Health and/or the local municipality. Churches can assist by encouraging their women's guilds and men's societies to invite health educators to talk to their members and/or to other groups which they have brought together. At such meetings interested persons can then ask in what way they can themselves be of service.

The plots in urban non-white townships are small, but if they are used wisely they are a possible means of supplementing the family diet with green foods. Gardening should be encouraged by the organisation of garden clubs, with prizes for the best vegetable garden. This would make a small but worthwhile contribution to the attack on poverty and malnutrition.

In rural areas there is a need for more organisations like the 'Valley Trust' at Botha's Hill in Natal. This requires trained personnel, but there is no reason why laymen cannot find out how the scheme works and try to spread the idea.

(vii) Rural development

South Africa, along with other developing countries needs rural development urgently. This means development not only in the most isolated rural areas, but also in peri-urban areas in the African homelands, and in areas occupied by Indians, Coloured people and Whites. The highly elaborate technological means of the cities are often inappropriate for rapid development and problem-solving in rural areas, and there are some

who might find that their contribution to the solution of poverty lies trying to assist in such rural development. For those who are really interested, it is worthwhile getting in touch with the 'intermediate technology' group in London, founded by Dr. E.F. Schumacher. Through the South African Council of Churches (which is very interested in the same problem) it is possible to obtain further information.

(iv) Need for co-ordination of various activities

One problem is the lack of co-ordination of work amongst the poor. Especially in large towns and cities, there tends to be overlap and needless duplication. The co-ordination of voluntary organisations is an extremely difficult task, and it would be a *real achievement if Christians* and others of goodwill managed to organise a co-ordinating welfare council. Such a council is not the same as a Community Chest, which merely co-ordinates fund-raising and does not co-ordinate relief and other forms of social service. Given scarce resources, co-ordination is highly desirable if we are to make the maximum impact in our efforts to alleviate and solve povery.

FINAL REMARKS

Much of the work undertaken in the field of poverty is palliative. Efforts must be made to strike at the roots of the whole problem. This is a complex task.

The solution to the problem of the poor whites in South Africa was education and economic advancement through occupational mobility, particularly inter-generational mobility whereby the children achieved better positions than their fathers. There is a need to push for better economic opportunities for non-whites, more particularly for State subsidisation for education so that not only the whites, but even poor non-whites, can afford education for their children up to the full limits of the abilities of these children. Secondly, there is a need to press for better opportunities for occupational and therefore economic advancement of the non-whites, so that more and more can move out of the ranks of the poorly paid unskilled labour force into the middle and upper economic ranks, and so in turn can make their contribution towards the solution of poverty.

Research has shown that the major cause of poverty in urban South Africa, as in other urban cultures, is the low wages paid for lowly skilled jobs held by unskilled and relatively untrained workers. Yet this fact is not part of general knowledge, and most people today still see the poor as individuals who are

poor through their own folly and waste. There is a very real need to inform the public at large about poverty and the extent of it. There is a need to convince people of the role of low wages and poverty. Better wages and better living conditions are factors in securing greater productivity, and this is an angle often overlooked when one speaks about wages. Individuals concerned about this whole problem of wages can be spearheads in organising public pressure and working through lobbies to to persuade the government to give a lead to the country. The target of a minimum wage equal to the poverty datum line for a family must be set as the initial goal. Wages must not stop at this level. Not only should they first reach it and then be adjusted as the cost of living increases, but for the reasons given earlier the effective minimum level should soon after be set as the target.

The improved training and education of the poor, and increasing their productivity, is most important. Industry itself is keenly aware of the situation, and much valuable work is being done, for instance by the Bantu Wage and Productivity Association.

It has been pointed out that poverty in South Africa is today very largely non-white poverty, and this in turn is very largely the poverty of both rural peoples and rural migrants in urban areas. We are in fact faced with the culture of poverty', which has been found in many areas of the world. In this connection the following quotation is relevant:

> *'In moving from a predominantly agrarian to a highly diversified economy, countries which have undergone rapid industrialisation show a marked townward drift of their population. This has resulted in the depopulation of the rural areas, with the concentration of the population in industrial towns requiring workers. Despite expanding markets for labour, internal shifts in the industrial labour force have frequently given rise to job insecurity and unemployment. As a concomitant of the rapid growth in urban populations, existing community services have been unable to keep pace with the ever-growing demand. Housing, education, sanitation, hospitals, recreational facilities, etc. have lagged behind the rapidly-growing needs of the urban populations. A famous American anthropologist, Oscar Lewis, in a recent report on urbanisation in Mexico, gives a vivid description of the problems facing the rural peasantry subject to forces of urbanisation or industrialisation. He uses a phrase which*

is becoming common in sociological literature - he speaks of 'the culture of poverty'. By this, he means the matrix of poor living conditions, low literacy, irregular wages, earnings which have to be supplemented by the earnings of women and children, and the overwhelming problems of poor health and bad nutrition, of ignorance of nutritional food in an entirely different environment, and the maladjustment and crime. Welfare Workers in the Republic will have no difficulty in recognising the presence of 'culture of poverty' in our towns. One big difference in other countries is that the rural migrants elsewhere have the social and psychological protection of a common culture, and a common religion. In South Africa, the townward shift of the Bantu population is associated with migrants being subject to culture-conflict and westernisation, and uprooting from their tribal background (in so far as it has survived until the present time). So while our problems are fundamentally no different from the general problems facing developing countries elsewhere in the world, they are exacerbated by the traditional background of the Bantu, by westernisation, by detribalisation, and by the administrative rigidities imposed by legislative regulations which form a framework within which a flexible adjustment must be attempted ...' (11).

One of the clearest ways in which poverty manifests itself is in the health of infants. It has been said that what happens to the human baby shows most clearly whether the environment is fit for human life or not. It has been estimated that the cost of treating Kwashiorkor at one large hospital in South Africa over a period of just one decade amounted to something of the order of one million rands and that somewhere around one hundred thousand rands a year or more was being spent on Bantu child health by voluntary organisations and statutory bodies working in the city in which this hospital was situated *(12)*. The situation in the city is improving, and yet in his Annual Report for 1968 the Medical Officer of Health reported that whereas the infant death rate for whites was 19.55 children, for Africans it was 107.43. The costs of poverty are many, ranging from the cost of ill-health, lower productivity, the cost of stupid workers whose minds have been permanently retarded at an early age through malnutrition, higher costs for health services to combat preventable illness, through to crime and pilfering resorted to by the poor to boost their incomes illegally. In one way or another poverty touches all of us. It may well be that future

historians will judge this generation in part in terms of what we have done, or failed to do, to tackle poverty.

FOOTNOTES

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7. Batson, E. (1945): *The Poverty Line in Salisbury:* University of Cape Town, Cape Town, p. 14.

8. Wittmann, W., A.D. Moodie, S.A. Fellingham and J.D.L. Hansen (1967): 'An Evaluation of the Relationship between Nutritional Status and Infection by means of a Field Study': *South African Medical Journal*, 22nd July, Vol. 41. No. 27, pp. 664 - 682.
9. op. cit.
10. Watts, H.L. and N.K. Lamond (1966): op. cit., p. 275.
11. Watts, H.L. and N.K. Lamond (1968): op. cit., pp. 110 - 113.
12. Watts and Lamond (1968): op. cit., Ch. 2.

AFRICAN RESETTLEMENT

c. desmond

PUBLISHERS' NOTE:

In view of the fact that a banning order has been served on the Rev. C. Desmond, the final paper in this publication has had to be taken out.