HUMAN RESOURCE DEVELOPMENT IN AFRICA

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Introduction

This paper begins by looking at the general background against which development of human resources is taking place in Africa. There is a two-way relationship in process. Expansion of human resource capabilities is an important input into the development process. However, the resources that can be allocated to increasing the capabilities of the population through better nutrition, health and education are limited by economic factors. In order to illustrate the economic constraints being experienced by African countries, comparisons are made between Africa (taken to be the 50 countries south of the Sahara), other less developed countries (LDCs) and the high income countries (HI). These groupings follow the World Bank 1993 classifications, and comparisons relate to 1990 or adjacent years when considering economic and social structure data, and to 1980-90 for economic performance.

Adequate nutrition is a basic requirement as well as contributing to the efficiency of the workforce, and the second section examines the nutritional status of African populations and problems of avoiding malnutrition.

The third section, dealing with health, begins by looking at the impact of the most debilitating diseases, the health problems they pose, and the major policy issues arising in health care in Africa. Health provision is important in increasing the productive capacity of the

workforce, as well as improving the quality of life of the population, a vital objective in itself. Furthermore, health prospects have an influence on family size (which is also true of education) which in turn affects the rate of population growth. Faster population growth, it is argued, has an adverse effect on the pace of development.

Education and training make up the third main area in human resource development, and this is the subject of the fourth section. Some current thinking argues that education is the most important factor in the development process.

Finally the arguments of the paper are drawn together in a concluding section.

Economic background

Economic structure. African countries contain roughly 9% of the world's people, other LDCs contain 76% and the HI countries 15%. Population growth rates are significantly higher in Africa than elsewhere. This is particularly noticeable in comparing Africa's 3.0% annual rate of population increase with that of the other LOCs at 1.9% a year, and the 0.5% a year increase in the HI countries. High population growth rates in Africa imply high dependency ratios, with around half the population under the age of 15. This presents a daunting prospect in the effort to provide basic health and education for all.

Despite fast rates of population growth, Africa has a low overall population density, 21 person per square kilometer. Africa density is under a third of that recorded for other LDCs at 65 persons a square kilometer. However, the nature of the economic structure in Africa, which is highly dependent on agriculture, and the limited fertile land area, need to be taken into account when considering the impact of fact population growth on development prospects.

Africa produces 0.7% of world output, with the other LDCs recording

14%, and the HI countries 85%, When levels of annual income per head are calculated, Africa's is $1,200 as compared with $2,170 for other LDCs and $14,440 for HI countries. The World Bank 1993 divides countries into Low-Income, Lower Middle-Income, Upper Middle-Income and High-Income groups. One African economy (the Indian Ocean island of Mayotte, currently administered by France) is in the High -Income group, three are in the Upper Middle-Income category, ten are in the Lower Middle-Income group, and the remaining 36 are Low-Income.

Of the total value of goods and services produced in Africa, 32% is provided by agriculture. This is greater than for other LDCs at 17%, and the 3% provided by the agricultural sectors of the HI countries. Over 70% of the African labour force is in agriculture, much higher than the HI group where only 7% of workers are in agriculture. Despite the heavy concentration of production and manpower in agriculture, Africa receives more than 5 kg of cereals per head annually in food aid compared with 3 kg per head in other LDCs.

On the expenditure side, Africa commits 68% of production to private consumption, and this is fairly close to the 63% allocated by other LDCs, and the 61% in the HI countries. Investment in Africa is 16%, in the other LDCs it is 26%, while in the HI countries, 23%. Of all production in Africa 29% is exported.
In other LDCs it is 24%, and in HI countries, 20%.

Africa is responsible for 11% of the world's outstanding external debt at $110b. However, Africa's debt is 110% of one year's GNP, whereas for other LDCs debt it is 40% of GNP. The burden of debt service (interest payments and repayments of principle) is about the same Africa as in the rest of the developing world at about 19% of export earnings.

About a third of net aid goes to Africa. This disproportionate emphasis on Africa, considering Africa comprises only 12% of the population of the developing world, implies greater receipts of aid per head.

These were $34 par head for Africa and $12 per head for other LDCs.

Daily calorie supply is 2,122 per head in Africa, it is 2,523 in other LDCs and 3,409 in the HI countries.

The low emphasis given to education in colonial Africa is reflected in the low overall literacy rate, where only 47% of adults are unable to read and write, compared with 65% in other LDCs. Average numbers of years in schooling in Africa is 1.6, in other LDCs it is 3.7, and in the HI countries, 10.0. There are marked disparities between male and female education in Africa with 36% female literacy as compared with 58% for males, 0.9 average years of schooling for females and 2.3 years for men. Of the relevant age groups, 46% of African children are enrolled in primary school as against 83% in other LDCs; 16% are enrolled in secondary education Africa, as against 40% in other LDCs; 2% are in tertiary education as against 7% on other LDCs. Again there are gaps between the genders with female primary education enrollments 85% of the male level, secondary 64%, and tertiary 32%.

Life expectancy is 52 years in Africa as compared with 63 in other LDCs, and 74 in the HI countries. Infant mortality is 103 per thousand in Africa, in other LDCs it is 73 and in HI countries it is 14. There are 23, 000 persons per doctor in Africa, 5,000 in other LDCs and 380 in HI countries.

Economic performance. In Africa GDP grew at 2.1% in the 1980s, while in other LDCs it expanded at 3.2% a year, and the HI countries at 3.1%. When populations growth rates are taken into account, to give GDP/head growth rates, Africa has had average output per head falling at -1.0% a year. Other LDCs increased GDP/head at around 1.1% annually, and the HI countries at 2.5%.

Although agricultural output in Africa expanded at 2.1% a year in the 1980s, this was slower than the rate of population growth of 3.1% a year. The industrial sector grew at 2.0% a year, and the services sector at 3.0%

a year. Performances across the sectors is markedly inferior to that the other LDCs, where agriculture, industry and services sectors have all expanded output at over 3.0% annually.

Trade performance shows Africa's export volumes growing at 0.2% a year in the 1980s. This contrasts with other LDCs where export volumes have expanded by 4.1% annually, and HI countries where they grew at 4.3%.

Africa's terms of trade have declined since 1985 by almost 10%, implying that a 10% greater volume of exports has been required to purchase the same volume of imports as in 1985. This experience has been similar for the other LDCs, while in the HI countries, terms of trade have improved by 3%.

Africa's inflation record, with an average annual rate of around 20% annually in the 1980s, compares well with the record of other LDCs, which shows an average of over 60% annual inflation in the same period, while HI countries have experienced 4.5% annual inflation.

Analysis of economic performance. It is clear that Africa is significantly less developed than rest of the developing world, and that the gap is widening due to Africa's inferior economic performance. Much has been written on the reasons for the poor economic performance, and Hodd 1991 reviews the debate. In brief, the World Bank and the IMF have argued that excessive government intervention, ownership, control and regulation have been mostly to blame. The opposing view is that the oil crises, political instability (often externally generated, as with the countries bordering South Africa), droughts and world recession are the major factors. Despite this controversy, most African countries have implicitly accepted the World Bank and IMF analysis by introducing liberalizing, market-orientated reforms. In some countries (such as Tanzania) there has been a marked improvement in economic performance, but in many others, improvements have been slight. The new policies have important

implications, nevertheless, for human resource development, with less emphasis given to free health and education services from the state, and more to fee charging and private provision.

Nutrition

Inadequate nutrition is a serious problem in Africa for two reasons. It renders the victim susceptible to other illnesses and it is a serious condition in its own right. The most widespread and threatening form of malnutrition is protein-energy malnutrition (PEM). It has been estimated that PEM has been the underlying cause in about 50% of all deaths among children under the age of five some countries (Kimati 1986). Although many children die of infectious diseases such as measles, PEM has been the underlying problem, the disease being the terminal factor.

Evidence of how malnutrition increases the susceptibility of children is seen in a study carried out in central Tanzania (Barclay 1987). The study measured children's height, weight etc and categorized them into normal, underweight and malnourished, using weight for age as a percentage of Harvard Standard means. "Normal" was categorized as 80% or over, "underweight" was 60-80% and "severely malnourished" under 60%. It found that underweight children were admitted to the hospital three times more frequently than normal weight children and were 2.5 times more likely to die. Severely malnourished children were admitted 5.5 times more frequently and died in hospital 12.5 times more frequently than normal children. Only 30% of the total admissions were of normal weight, while 26% were severely malnourished. Severely malnourished children had a significantly higher mortality rate (17.9%) than those with normal nutrition (8.7%), and forty-four percent of all deaths were amongst severely malnourished children. The study found that malaria, measles, pneumonia and malnutrition accounted for 60% of admissions and 62% of all deaths. A survey was also carried out within the commu-

nity the community. This found that 63% of children were normal, 29% were underweight and 9% were severely malnourished, as assessed by weight for age.

A deteriorating nutritional status within a population, or underntrition, can be caused by a number of factors. Undernutrition itself is caused by lack of food intake which in turn is caused either by lack of availability of food or by loss of entitlement to food. Food availability is ability of a country to grow enough food to feed itself and its growing population, or alternatively, to have sufficient foreign exchange to import to food people. Reasons for the unavailability of food include the "production crisis" as suggested by the World Bank 1989, and the problem of low prices for agricultural products giving poor incentives to farmers. Some observers are of the opinion that emphasis on export crops has resulted in declining nutritional status. This is highly disputed, however, and the evidence available seems to be largely conflicting. Other factors that affect the availability of food include the weather (in particular rain failure), armed conflict and instability.

In Africa the per capita food production has fallen over the past decade. Taking 100 as the food production index level in 1979-81 food production had fallen to 95 by 1989-90 (FAO 1992). To maintain per capita calorie intake in the face of falling per capita food production, it is necessary either to have sufficient foreign exchange to import food, or else to secure increased food aid.

The second factor affecting nutrition is that of food entitlement (Sen 1980, Dreze and Sen 1990). Entitlement means access to food deriving from having produced it or having money or goods to exchange for it. This approach argues that famines are not necessarily caused by declines in the availability of food, but by loss of food entitlements. Drought and other natural disasters are not necessary nor sufficient for famine to occur.

The third factor affecting undernutrition is illness and the inability of

the body to use nutrients, that is, nutritional capability. Thus access to other non-food inputs in particular clean water and improved sanitary facilities have a great impact on the ability to be nourished.

In a study in Kenya, Kennedy and Coghill 1989 found that 50-70% of the children and women were sick at any one time (on average one out of every four days) and illness tended to be most prevalent in the pre -harvest rainy season. This study examined the importance of other explanations besides the intake of food on nutritional status and showed clearly that disease and malnutrition are frequently closely linked. The study found that morbidity patterns are among the major determinants of preschool nutritional status and the more a child is ill or has diarrhoea, the less improvement there will be seen in its nutritional condition. Thus one of the major pathways to improving nutritional status is improvement of health and the sanitation environment. It is argued that morbidity patterns and sanitation variables have the most dramatic affects on growth of children, and that the data suggest that preventive rather than curative strategies may have more positive effects on child health. Low -cost, low-technology health innovations with a preventive focus can have a high payoff. In the sample only 61% all households had latrines, yet the presence of a latrine is one measure that clearly had a positive effect on children's health.

Dreze and Sen 1989 agree that the capability to be nourished depends crucially on other characteristics of person that are influenced by such non-food factors such as medical attention, health services, basic education, sanitary arrangements, provision of clean water, eradication of infectious epidemics and the like, and that it is a mistake to relate nutritional status to food inputs alone.

By way of example, in Tanzania (UNICEF 1991) the percentage of the total population with access to safe water in 1985-88 was 56% (90% of the urban population and 42% of the rural population) and the percentage of the population with access to sanitation in 1985 was 68% (93% in

the urban population and 58% of the rural population). There is clearly much room for improvement, particularly in rural areas and a potable water supply and improved sanitation are considered to be important in influencing health. Although one would expect increased access to clean water to have a clear effect on health there is some evidence that increased access does not necessarily lead to the expected improvements in morbidity, rate of diarrhoea and nutritional status of children. This is because, despite the increased access, the villagers do not necessarily change their water use patterns, and it suggests that education needs to go hand-in-hand with infrastructural improvements.

Women's influence on nutritional status can be seen in a number of ways. Kennedy and Coghill 1989 point to the fact that female headed households and fared consistently better that male headed households and there is much literature indicating that when women control household income they are more likely than men to spend any incremental income on food. This creates a problem if the introduction of cash crops means that the control of the household moves from the woman to the man as is often the case. There seems to be little doubt that the higher the educational level of women the better the nutritional status and health of their children.

Efforts to reduce rates of malnutrition need to be targeted on all the different causes of underntrition, including food availability, entitlement and nutritional capability. In the long term policies of food availability include improving incentives for farmers through "getting the prices right" and by removing distortions in the system. Policies of entitlement include general poverty-reducing policies, employment creation and income generation. It may also be necessary to have some food subsidies targeted carefully at the most vulnerable, namely the sick, disabled and elderly. The introduction of higher calorific value crops could also help reduce malnutrition, particularly amongst children. In the short term, in times of famine and food scarcity, policies to distribute food maybe

necessary. Policies aimed at improving nutritional capability are perhaps the most essential in terms of general health. They include improved water and sanitation and basic education, particularly that of women. The important fact about disease and malnutrition is that one leads to the other and they therefore need to be dealt with together.

Health

Diseases. Malaria is the commonest disease in Africa being the most frequent cause of outpatient visits and admissions. It is a continuing health problem as it is a severely debilitating disease which leads to general weakness. The disease to the underutilization of labour and thus impairs the economic and social welfare of a country. There are four strains of malaria, which is spread by the mosquito, the most serious of which is plasmodium falciparum. The mortality rate amongst untreated children and non-immune adults for this type is over 10%. The other three strains are usually not life-threatening except amongst children and other susceptible patients. Malaria occurs throughout the year in coastal regions and around the shores of inland lakes. In other areas transmission occurs largely during the rainy season.

Date from the National Institute of Medical Research of Tanzania shows malaria as the third most common cause of hospital deaths. In 1973 it accounted for 12% of all recorded sick people (morbidity) and 4.5% of all deaths (mortality) in hospitals in Tanzania. A report 1983 suggested that malaria was responsible for 10-12% of hospital attendances and 6-7% of hospital deaths. One study has found that about 50% of child admissions at a medical center the capital city were as result of malaria-related cases. Of these cases 30% had malaria alone, while the rest had malaria with other diseases (Asha Bai 1983).

Efforts to control the spread malaria have a long history, having first begun during the colonial period. Implementation was slow but steady.

It was not until 1955 that a more ambitious program was launched by the World Health Organization (WHO). This advocated a world-wide malaria eradication program to be carried out over a period of about four years. Complete eradication of the disease has failed because of the lack of a health infrastructure and shortage of funds. Since independence in most African countries in the early 1960s, emphasis has been on curative rather than preventative measures, in particular though the provision of health centers and dispensaries to villages. For a period of time local authorities used vector control measures by spraying breeding areas with insecticide. If these measures had been continued and carried out in full, eradication could have been successful. However lack of funds again led to the termination of these preventative measures. Relying on curative measures has been ineffective in controlling the spread of malaria and the proportion of people who die as a result of malaria has not been reduced over the past two decades. Relying on curative methods has also created the problem of the appearance of a strain of chloroquine resistant malaria. Malaria cannot be effectively managed by reliance on curative measures alone, and supporting preventative measures involving improvement of environmental sanitation, water supplies and more emphasis on basic health education are essential (Mbwette 1987).

Cholera immunization is not very effective in preventing or controlling epidemics. Since 1950 there have been regular outbreaks of cholera, particularly in the poorer countries. Seasonal relapses of the disease are not uncommon. The major vehicle in the spread of the disease is through the consumption of contaminated water. This explains the increase in the number of cholera victims during the rainy season, as so many of the rural population of Tanzania rely on untreated surface water or shallow groundwater. Another route for the spread of the disease is through unhygienic conditions in the preparation of food.

Contaminated water plays a central role in the transmission of the disease. Cholera therefore tends to affect lower socioeconomic groups

who have poor sanitary conditions and water supply and low standards of housing.

The major preventative measure against cholera revolves around good sanitary conditions and a safe water supply. During an epidemic other measures include isolating cholera patients, putting the area of the epidemic under quarantine, immunizing people who have to enter the area affected, and educational programs to explain to the public the major methods by which the disease is transmitted. Treatment of the disease, which is characterized by acute diarrhoea and vomiting and thus severe dehydration, includes the replacement of fluids and electrolytes and the prescription of antibiotics. Measures taken by the government can keep the mortality rate of cholera victims down to below 10%. Obviously the rate of mortality may be an underestimation due to under-reporting of cases. Isolation of patients, placing an area under quarantine and restricting movement in this area may actually cause more problems than they solve as these measures may cause panic as well as lead to under -reporting. Widespread use of antibiotics during an epidemic may not be desirable as this may lead some strains of the disease becoming resistant to the antibiotics.

Diarrhoea is the second most serious childhood disease (after malaria) throughout Sub-Saharan Africa. Diarrhoea has many of the same causes as cholera and the prevention measures are also the similar. Improved water supply and sanitation are vital for the prevention of the disease. Curative measures are cheap and simple. They include oral rehydration therapy (ORT). It has been estimated that about two thirds of the diarrhoea diseases could be prevented by the use of ORT. However, the use of ORT remains low with use rates of 14% in 1987 (UNICEF 1990).

AIDS is a relatively new disease but already it presents a serious threat to the population of Africa. It has spread at an alarming rate with no cure in sight, or immunization available. AIDS is clinical disease

caused from infection by the HIV virus. The virus is transmitted by sexual activity and other exchanges of bodily fluids. In Africa the primary mode of transmission is though heterosexual contact. There is a high incidence of sexually transmitted diseases (STDs), which increases the spread of AIDS. An estimated 60% of HIV infected people will develop AIDS and die within 12 years of an AIDS related complication (WHO 1992). It is believed that the vast majority of infected persons will develop AIDS eventually. About one third of children born to HIV infected mothers will also be infected with the virus, while the remaining children are likely to become orphans within 5 to 10 years of their birth. Evidence from other parts of East Africa suggests that the seropositivity rates double in under two years (Carswell 1987). In a Lake Victoria district of Tanzania, for example, HIV infection rates varied from 3% for a sample of rural women, 20% for urban women and over 50% for prostitutes (AIDS Analysis Africa 1992, Becker 1990, Larson 1990, Myers and Henn 1988).

Initially, the effects of AIDS is felt by the families of the victims, particularly if the illness effects the breadwinner. Income falls, as does labour input on farmland. The cost of care, and finally a funeral, may be considerable. Barnett and Blaikie 1992 have examined the downward spiral in which family finds itself. Remittence and cropping patterns change as labour and monetary income is lost. Children may have to be withdrawn from school and orphans are an increasing problem. Some observers suggest that the extended family can cope with these burdens relatively well. However, a study carried out in south west Uganda concludes that the burden of care falls largely on those with only limited assistance from the extended family and the burden is frequently felt largely by the women (Seely 1992). As time progresses, and more and more people within a community are affected, so the ability to share the burden will be reduced.

Gradually the micro-effects accumulate and the impact of the epi-

demic is increasingly felt at the national level. Production on a national scale can be expected to decline and the health service will be stretched to breaking point. The macro-economic effects of the epidemic are particularly serious because it strikes at the economically active adults and at the most productive sectors of the population. Not only will this affect production, but it will also lead to an increase in dependency ratios. It is suggested that between 0.7% and 1.4% of GDP growth will be lost because of the AIDS epidemic (over 1992). This need to be viewed in the light of the current African growth rate for GDP of 2.1% a year, and GDP per head falling at -0.1% a year.

Even the most optimistic scenarios suggest very high mortality rates from AIDS within the next few decades. Even if the pandemic does not actually cause the "depopulation of Africa" there is no doubt that its impact on mortality rates will be enormous in many countries, and will reduce the rate of population growth in the affected areas. In addition to this the costs, both direct and indirect, will lead to tremendous economic problems, particularly as the disease affects people in their most productive years and leads to an increase in dependency ratios.

Other serious diseases in Africa include tuberculosis, measles, eye diseases, cancers and mental health problems. The incidence of most these diseases is high as a result of poor peventative capacity and low resistance caused by malnutrition, while morality rates are high due to inadequate curative resources.

Approaches to major health problems. There are two major approaches to improving health - preventative and curative. Preventative measures include reducing rates of malnutrition which lead to susceptibility to disease, improving water supply and sanitary conditions (which reduces the incidence of water borne diseases), the expansion of education, and bringing population growth down to more manageable levels. Primary health care is also an important element in preventative measures. A

further important measure of disease prevention is immunization. In Tanzania, for example, the percentage of children fully immunized has risen in the period 1981-9 from 58% to 85% for diptheria, from 49% to 82% for polio and from 76% to 83% for measles (UNICEF 1990).

On the curative side, health service facilities need to be available to all within a short distance from their homes. There is much evidence that improved socioeconomic conditions (that is, more educated people, higher income per household, better nutrition, clean water supply and better housing) lead to lower mortality (Sembajwe 1983). The conclusion is that while Africa strives to provide health care for all, an integrated approach to rural development should be adopted as the well-being of the population is affected by a wide variety of factors.

Financing the health sector. There has been variation in methods across Africa, but the experience of Tanzania is fairly typical of the approach adopted by a low-income country with a strong commitment to improved and equitable health provision. From the time of Independence health services were provided by the Government, local and national parastatal agencies and voluntary bodies, as well as by traditional healers. Until recently, government health services were provided free of charge, which for Tanzania, was part of the country's commitment to the socialist ideal. The other providers of health services have usually charged a nominal fee and formed an important part of the health sector. During the 1970's and 1980's there was a considerable amount of foreign aid committed to Tanzania, and in the late 1970s about 70% of the health capital budget was from foreign governments, international organizations, church missions and voluntary agencies (Kue Young 1986). By 1982-83, 80% of the budgetary expenditure in the health sector was from foreign aid. In 1980 the private sector was formally abolished and health institutions were absorbed into the national sector. Central government expenditure on the health sector has fallen from 9% of total expenditure in 1973 to 3.6%

in 1987. Consistently throughout this period the government has spent more on defense than on health (UNICEF 1991).

In the immediate post-Independence period, in the face of strong budgetary limitations, the government concentrated on economic projects and education. In the period of 1961-64 economic projects including agriculture were given 60% of the budget, while education got 15% (van Etten 1976). Health services were only allocated 4%. The money that was allocated was aimed at improving hospital services, perticularly in the towns. Rural health services had very little support from the central government.

The First Five Year Plan of 1964-69 called for the establishment of a countrywide system of rural health centers, each providing integrated health care and supervising a number of satellite dispensaries. The aim was to extend the health services into the rural sectors with particular emphasis on preventative aspects. The target was to build 83 new health centers. However, the results of the First Five Year Plan were disappointing and in fact within the health sector there was no significant improvement due to the lack of resources, planning machinery and staff.

1967 saw the Arusha Declaration and a commitment to self-reliance and socialism, and this formed the basis the Second Five Year Plan of 1969-74. It was geared towards rural development and the satisfaction of basic needs such as housing, water supply and health care. This was a turning point for health services in Tanzania and the development of the health sector was given a new sense of priority. The delivery of health services was to be through health centers and dispensaries, village health centers and mobile health services.

In 1972 the Ministry of Health took over national projects and was responsible for providing policy direction and overall sectoral coordination. Meanwhile the planning and implementation of local health programs was the responsibility of lower levels of government. The cornerstone of rural development in the 1970's was the establishment of ujamaa

villages. This policy was significant in relation to health services for it meant that the delivery of health services would be made much easier by collecting together scattered households into villages.

In September 1971, at the bi-annual conference of TANU, health services were assigned ever greater priority and the need for rural development specifically directed at health services, water supplies and education was emphasized. In September 1973 the government's commitment to the health sector was clear when it announced "we must determine to maintain this national policy and not again be tempted by offers of a big new hospital, with all the high running costs involved - at least until every one of our citizens has basic medical services readily available to him" (Gish 1975).

At the time of independence there were fewer than 20 African physicians working in Tanzania as well as several hundred "medical assistants" and other auxiliaries. After Independence the training of these medical assistants was suspended in the belief that they were the result of a policy based on discrimination against Africans. However by the end of the 1960s it was realized that in fact training medical assistants was not discriminatory but was a reaction to the demand and these medical assistants served an extremely valuable purpose. The policy was therefore reversed and after the Arusha Declaration the importance of medical auxiliaries was recognized. However because of the lack of training during the 1960's there was the need for a great deal of catching up during the 1970's. This however was hampered by problems of inadequate supervision, material support and financial limitations. The study by van Etten 1976 found that other problems of health auxiliaries were that they often came from urban backgrounds and were motivated by the promise of status. They had a poor understanding of rural development and tended to have a feeling of disdain and authoritarianism towards the "ignorant" peasants. To prevent this auxiliaries received political training and were required to partake in collective labour. However this did

not seem to have had the required effect on attitudes.

This aim to plan and allocate health resources equitably and rationally according to the needs of the population has not been easy to carry out. There has been a longstanding bias towards curative medicine and urban services. In the early 1970's budgeted expenditure on curative services exceeded preventative by about 9 to 1, while the ratio of actual expenditure was nearly 16 to 1 (van Eten 1976). This imbalance was slowly redressed during the 1970s.

The other major disparity is between rural and urban areas. A study found that the national referral hospital in Dar es Salaam in reality served the city's residents (2% of the population) while consuming about 16% of the country's hospitals budget (van Etten 1976). Rural-urban disparities are evident in almost all indices such as population per doctor and population per hospital bed.

One aim put forward was that everyone should have health facilities of some description within easy access to their homes. A study in 1972 found that 50% of outpatients at a government hospital and 37% at a private hospital travelled less than 9 miles. They went even shorter distances to get to health centers which provided more basic facilities, with 50% of health center patients travelling less than 5 miles and another 30% travelling between 5 and 10 miles (Gish 1975). Nevertheless, in 1972 75% of the population lived over 10 Km from a hospital, 87% lived over 10 Km from a rural health center, and 22% from any type of health facility.

Despite the problems there have undoubtedly been some significant improvements. For example, the percentage of pregnant women visiting modern hospitals or clinics rose from 33% in 1961 to 67% in 1970. By 1980 it was estimated that 72% of the total population lived within 5 Km of the nearest health facility (Matomora 1989). In 1980 a study found that of the total population, 76% had access to health services (defined as within one hour by public transport), and now 99% of the urban popula-

tion and 72% of the rural population have such access (UNICEF 1991).

From 1972 to 1980 a health plan was launched to attempt to remedy some of the problems of the Second Five Year Plan. This was aimed at improving the distribution of resources and rural facilities. The plan was for 25 health centers and 100 dispensaries to be opened annually to give 300 rural health centers and 2300 dispensaries by 1980. In 1971 the Maternal Child Health Committee was established which aimed at providing mothers and young children with immunization, nutrition education, antenatal and postnatal care and treatment for minor health problems.

In the Third Five Year Plan of 1976-1981 there were three main aims related to health: to strengthen health services so that they would be available to more people; to strengthen preventative services; and to develop training programs of health workers particularly for service in rural areas. Rural Health Centers were to be the nucleus for rural health services and each would supervise about six dispensaries. The target was for one dispensary for each village.

Towards the late 1970's the goal shifted from a dispensary for each village to primary health care (PHC) for each village. Tanzania was probably ahead of the general movement that gave PHC such a prominent position in health service provision. In 1978 the WHO and UNICEF sponsored the First International Conference on Primary Health which was held at Alma-Ata in the USSR. The Alma-Ata Declaration was particularly important in stating some of the aims associated with PHC. Non-governmental organizations (NGOs) have been especially important in sponsoring PHC projects. Examples of these include the Dutch group SAMAVI who established a community based program in the Tanga District (Ebrahim et al. 1989).

National health education programs such as Mtu ni afya (man in health) and chakula nu uhai (food is life) were launched through the media and through community discussion groups. These were aimed at improving health through increased awareness and through self-help

measures such as building latrines and mosquito control. These programs seem to have been relatively successful in increasing public awareness and leading to some change in behavior. However only 58% of the rural population had access to sanitation in 1985 (UNICEF 1991) suggesting that much remains to be done. The Tanzanian PHC program has been judged to be relatively successful compared to other countries and the reasons for this are the commitment of the state and a favourable political environment (Stock and Anyinam 1992).

The major problems that remain despite the relative success of PHC in Tanzania are the imbalance between urban curative expenditure as against rural health. Tanzania has reduced the proportion of the health budget spent on urban hospitals from 74% to 60% and increased funds for rural health care from 12% to 18.5% from 1970 to 1980 (Stock and Anyinam 1992). While this is clearly an improvement it falls far short of the target of redistributing resources.

The economic crisis of the 1980s forced a major re-appraisal of these economic policies leading to liberalization of the economy, devaluation of the currency, and forced cuts in public expenditure including the health sector. The health budget of 1982/83 was just 57% in real terms of what it had been in 1977/78. In 1987 spending on health (as a percentage of government expenditure) had fallen to just 3.6% (UNICEF 1985).

The major result of the economic crisis on the health sector has been the introduction of patient user charges in an attempt to recover costs. This policy has been fairly controversial as it goes so strongly against all that Tanzania gas held to be so important.

Another important policy change in the health sector in the 1980s was the introduction of the essential drugs program (EDP) in 1983 which was initiated in response to extreme shortages on drugs.

Finally, an important result of the economic crisis of the 1980s was the effect on staff. Rapid inflation meant that medical staff were no longer able to survive on their salaries. This forced many to take on

other, second economy, jobs or leave the health sector entirely.

Implications of economic reforms. The main reasons given for introducing user charges are to increase the efficiency of the health service institutions, to redress the imbalances in the utilization of facilities, and to raise revenues. To control growth of health care expenditures and to ensure its more equitable distribution it is argued that there is a need to introduce some deterrent to the present often indiscriminate and sometimes abusive use of health services. Selected small fees it is suggested, ensure that the best possible use is made of scarce resources available for health care. The intention ought not to be to raise revenue for the health services or to present a barrier to the sick, but to make the services more efficient or equitable by deterring those who are overusing them relatively or absolutely (Gish 1975).

Some observers have gone further saying that given the current economic situation raising revenue should be one of the aims of charging. However, charging for medical services may lead to some people being denied access to health facilities.

The World Bank has undertaken a study of the effects of user charges in four countries of West Africa (Vogel 1988). Vogel found that the bulk of cost recovery revenue came payment for drugs and medications. People were willing to pay for health care, particularly if they perceived improvements in quality. Although cost-recovery had the potential for generating much needed resource, Vogel found that it was frequently not well administrated and so significant revenue was lost because of "overly generous exemptions for user charges and misappropriation". The study also found that although there was some progress towards more cost-effective allocation, spending still remained biased towards complex curative services.

To ensure that introducing charges does not deny some of the most vulnerable members of society access to health services the charges need

to be selective and fees should not be charged, for example, to pre-school children and pregnant women. There should also be no charge for preventative clinics, such as ante-natal, child welfare and nutrition clinics.

A study carried out in Tanzania compared the use of two hospitals serving the same area. One was a 90-bed government hospital with one Tanzanian doctor and two medical assistants that did not charge fees. The other was 240-bed mission hospital that charged a fee for treatment, with 3 expatriate doctors and one medical assistant. The study found that even though the mission hospital was nearly three times larger than the government hospital, the former saw about three times as many outpatients in a period of one year. This experience was found over Tanzania as a whole. Government hospitals with the same size staff and number of hospital beds as private and charitable agencies, treated three times the number of out-patients and twice the number of in-patients (van Etten 1972). These results do not allow for any other variables but on the face it do suggest that charging is a deterrent to usage when there are free alternatives available.

However there is some evidence that in fact people simply travel to the hospital nearest them regardless of whether it is fee paying or not. A study in Tanzania found that where there was a choice of hospitals, 75% of patients used the hospital that was nearest their homes apparently disregarding both the religious affiliation of the hospitals (because mission hospitals provide a significant service) and, more importantly, whether it charged fees (van Etten 1972).

An essential drugs program (EDP) was initiated in Tanzania in 1983 in response to the extreme shortage of medicines, particularly in rural health centers and dispensaries. This was the first such program post -independence. However a similar policy using a "National Formulary" had been in use with much success in the British colonial period. The background to the EDP was that the system of health care was such that

the state provided drugs free of charge. However the economic crisis of the 1970s meant that the government was finding this increasingly difficult to maintain. The situation gradually arose when the Ministry of Health could not provide adequate medical supplies to the health units. Thus although there may have been an elaborate network of health facilities throughout the country, these were useless without any medicines. In response to this situation, a task force was established in 1979 made up of representatives of WHO, UNICEF and the Ministry of Health. It was to examine the situation and make recommendations concerning the supply of drugs in the country. It found that the drugs shortage was caused by the shortage of foreign exchange, the increasing population, demand for modern medicines, wastage as a result of inadequate planning and control of production and distribution of drugs, and uncontrolled procurement and prescription of drugs. The situation had been exacerbated by the expansion of primary health care facilities in the early 1970s that had not been accompanied by a corresponding increase in the supply of drugs.

The main recommendations of the task force led to the creation of two types of "ration kits". The first was a dispensary kit which was supposed to contain enough medicine to treat 1000 cases for a period of 30 days at which time another kit would be delivered. The second kit was for a health center and was designed for 2000 cases for a month. The supplies were prepared and distributed in time for the program to begin in 1983.

Putting together such kits entailed the creation of a list of essential drugs. This is in itself difficult and creates a number of problems. Attempts had been made at creating such a list in 1977, and the list was revised in 1981 and 1986. The creation of such a list is a great deal easier, however, than its actual implementation. This was in part because drug producers, importers and distributors were under no legal obligation to stick to the list. Operators working under the Ministry of

Health did implement the list, but for those outside it was only voluntary. These included the publicly-owned drug producers Tanzania Pharmaceutical Industries and Keko Pharmaceutical Industries. The main drug importer and distributor, the National Pharmaceutical Company (NAPCO), was also difficult to control, largely because it falls under the Ministry of Trade and Industries. This obviously leads to a certain contradiction between the Ministry of Health and NAPCO. This lack of coordination between different arms of government has made the implementation of the EDP particularly difficult.

The distribution of drug kits was designed to be detached and separate from the Central Medical Stores (CMS) system used before EDP. The management of the EDP would liaise with UNICEF to establish the needs in different parts of the country. These orders would be sent to the UNICEF Packing and Assembly Plant (UNIPAC) in Copenhagen. From there they would be shipped directly to the zonal centers (of which there are six in Tanzania) without going through either the ministry of Health or the CMS. From the zonal office the kits would be distributed to districts and from there to the health centers and dispensaries. this system seems to work fairly efficiently. However there are problems with those public units that are not fully integrated into the EDP. The EDP has therefore promised to extend its activities to include such units. This however implies that the donor DANIDA will have to increase its support to the program.

There is a system whereby, through the functioning of the EDP, funds are supposed to build up so that eventually the CMS will be able to take over the role currently taken by UNIPAC. Once the kits have been delivered to the Zonal Centers, the District Executive Directors are supposed to pay for the kits using funds given to them by the central government for this purpose. However so far only about 50% of the funds have been recovered by the CMS for its intended "revolving fund". Part of the problem is also the devaluation of the shilling which means

that because the kits are imported using hard currency the price of kits has risen rapidly. Because the distribution continues even when debts are not recovered there is increasing indebtedness on the part of District Councils. For the Northern Zone the total debts amounted to around Tsh 49m ($2m) for the period 1984-87.

The system also suffers from reduced self-reliance. Local producers have not been integrated into the system and all the products on the list, including cotton wool and swabs are imported. Thus the EDP has an unfavorable impact on local production. Evidently while the procurement and distribution of drugs has been successfully achieved under the EDP, questions of self-reliance and the sustainability of the program have not been successfully addressed.

A further difficulty associated with the EDP is that of "irrational" drug use. Their study found that although the drugs kits arrived at the health centers and dispensaries a number of factors led to artificial drug shortages. These included inappropriate prescribing habits on the part of health workers and drug pilferage at dispensary and health center level. Health workers who had long service were more likely than newly qualified workers to over-diagnose malaria and prescribe conditions incorrectly. Newly qualified workers had better diagnostic skills and mis-diagnosis was significantly associated with long service and lack of a refresher course. Those who had attended a refresher course were nine times more likely to diagnose accurately and prescribe correctly. Sixty percent of health workers interviewed said that the drugs in the kit did not last the full month. The main reasons for this seemed to be that the catchment population of the facility was too large for the facility and the kits assumed a uniform pattern of disease. The problems were exacerbated by patients asking for specific drugs which health workers sometimes found difficult to refuse. A conclusion is that the lack of continuing education for health workers contributed to the irrational prescription of drugs. Lack of supervision, pressure from patients and local beliefs

about drug use also led to inappropriate prescription.

Recommendations include: improved education and supervision of primary health workers; cost considerations should be stressed to health workers during their training; efforts should be made to inform the public of the rational use of drugs; drug lists should be reviewed regularly so that changes to the disease pattern could be taken into account; only generic names (rather than brand names) should be used in drug prescription.

Education

There is no single aim of education, different aspects tend to be emphasized according to circumstances. It is important therefore in discussing education and its aims to identify the changes which are occurring and the various parties—those who invest and benefit from the 'returns' —who may have conflicting aims. People view education as an investment for the future, as a medium for betterment and empowerment with economic, social and political benefits in the longer term.

At Independence, which for most African countries occurred in the early 1960s, it was argued that the inherited colonial system of education was anachronistic, irrelevant and inadequate in meeting the needs and requirements of newly created states. Its failure to promote national unity, economic development, self-reliance, social justice, equity, scirntific and technological literacy, and promote cultural values, demanded educational reform. This was a matter agreed upon in Addis Ababa (1961) and Nairobi (1965) by the then Sub-Saharan Africa Ministers of Education. It was concluded that investment in human capital called for new approaches and special emphasis that differ from those in advanced economies. This resulted in significant changes to the education system.

Firstly, there was the belief that education was intrinsic to national development. Human capital theory emphasised that a relationship

existed between education and productivity —along with other social welfare initiatives, for example health. Different levels of education were thus assigned different roles in producing the various levels of skills required to achieve economic development. For example, Higher Education was encouraged to "play a pioneering role in addressing the problems of poverty, unemployment, social disorganization, hunger, low productivity, disease, illiteracy and underdevelopment". Universities were seen as critical agencies of modernization and development. Secondary educated people were considered critical to meet manpower requirements. The World Bank describes the products of secondary schools as the officers and NCOs of an economic and social system, essential as managers, engineers, technicians, administrators and professionals (World Bank 1988).

Secondly it was argued that national development should not only emphasise economic development but instill social, political and cultural values as well. The aims of education were broadened to emphasise development with equitable opportunities and benefits for all. This let to the expansion of education for all, particularly at the primary level.

Thirdly, as a result of internal and external political pressures, a renewed emphasis upon the economic returns to investment in education has developed. The product of this is the conflict which exists between two views in government, with implications for education and its aims. On the one hand stand those who favor the recent liberalisations in Africa and on the other those who see the acceptance of economic reform as tantamount to relinquishing some of the basically socialist framework that characterized development strategies.

Historically, the changes in emphasis in education policies reflect the polarity which exists between two often conflicting aims in education —the drive for social equity and education as an instrument for economic development. Today the aims of education emphasise the need to link education to direct economic benefits for the nation, given the prevailing

economic climate of increasing unemployment and decreasing government expenditure.

Economic growth is enhanced through the accumulation of capital, and by increasing the productivity of the labour force. The ultimate desire being to transform societies and economies into modern ones. Implicitly the body of knowledge possessed by the population and the capacity and training of the population to use it effectively, raises the productivity of the capital stock and lead to increased levels of productivity.

Psachoropoulos 1985, using a cost-benefit analysis, studied the rates of return to investment in education in sixteen African countries. The results show that social rates of return on investment in education are high—primary 27%, secondary 17% and higher education 12%. These rates of return are based on the measurement of labour incomes on the understanding that increased wages are a measurement of increased productivity. Formal sector earnings by education level in Ghana, Kenya and Tanzania (1982), suggest that wages increased in all three countries as the level of 'academic' education increased—especially so with the movement between 'A' level and degree level. There are a number of problems with the validity of using rates of return to determine the value of education to economic development —the main one being the assumption that income earned is a good measure of productivity.

The economic and social rates of return ignore the wider, non-economic benefits of education to the individual and the community. Education leads to change in the social and cultural climate, producing significant welfare effects. For example education is known to have an effect upon the behavior patterns of women who complete some from of post -primary education, affecting their age of marriage, their use of contraceptives, their methods of breast and ultimately fertility and mortality rates (World Bank 1986). Thus education can be expected to be an important social influence on the future of Africa. In addition, there are

other, personal, returns which result from the influence that education has in enabling its recipients to lead more fulfilled lives terms of access to books, newspapers and other pleasure-giving cultural pursuits.

The quantity of education. Most African countries, after Independence, adopted a policy of educational expansion. The human resource rationale for expanded access to education was superseded by the assertion of education as a basic human right. Basic literacy and numeracy liberated the human personality and were thus valuable in their own right, quite apart their contribution to the nation's economy and to the individual's economic situation. Education was thus considered the right of all citizens.

As a result, social policies included a strong commitment to a planned expansion of education-resulting in expanded access to education in addition to a variety of reforms to the context and orientation of schooling. However government emphasis and commitment towards the development of human resources to meet the demands of an expanding economy, required education's role to be one of developing high level skills as well as basic educational expansion. However, during the early 1970s emphasis shifted from the development of high level skills to the provision of basic education and included such policies as the adoption of local languages as the media for primary school instruction, the elimination of primary school fees, and revision of the curriculum.

Although fragmented, commitment to educational expansion at the primary and secondary level is evident. Equally Africa's commitment to other aspects of the education system remain impressive-for example the adult education and literacy programs have been very successful, although their future usefulness to the development process is questioned (Bacchus and Torres 1988, Mushi 1988, Omari 1991, Sumra & Bwatwa 1988).

The quality of education. The quality of education is difficult to measure because of the multiplicity of benefits obtained from education.

Factors which determine the quality of education need to be outlined for one to come to some understanding of the success or failure of education to meet the aims and needs required of education by those who invest in it. Within education there are a number of factors affecting the quality of education given which could be analyzed, but attention will focus here upon just two-the quality of resources invested in education and issues directly related to the curriculum.

Expansion requires considerable investment if the quality of education for the increasing numbers enrolled is not to decline. Both the quantity and the quality of expenditure, identified by the standards of the pupil's examinations, expenditure mix, system wastage, efficiency mechanisms and community effort, are important determinants of the quality of education.

Analysis of the quantity of Government expenditure in Tanzania, for example, reveals that public recurrent expenditure per student has declined in real terms, as a result of real Government expenditure declining and a rising number of pupils entering the education system. Consequently there is not the same input of financial resources necessary to maintain the standards of education let alone improve the quality of it. The percentage of total expenditure and the percentage of Government expenditure allocated towards education increased during 1970-80, but declined throughout the period 1980-85 (World Bank 1988).

Education requires considerable investment, and, as Psachoropoulos 1985 states, the cost of schooling can be viewed from three perspectives -society, government and the individual household. Alternatively, using cost-benefit analysis, the private and social costs and benefits of education can be examined. It is the changing relationship between private and social costs which provide interesting indicators of future government policies towards education, vis-a-vis economic development.

Government expenditure on education as a percentage of total expenditure has declined between 1972 and 1987 in most low-income African countries. With regard to expenditure on education this resulted in a significant shift of the cost from the government to the individual household as parents are having to take more responsibility for the education of their children. This educational policy constitutes a significant departure from the free educational policy designed to safeguard social equality.

Reducing government expenditure decreases the private rate of return as costs increase for the household. This move be governments raises the following question : if private costs significantly increase, while benefits appear less obtainable, will enrollment numbers decline, and consequently will the economic development of the nation suffer as a result ?

Studies of the costs and benefits of both private and government schools suggest not, finding that the increased private cost of education does not affect enrollment rates. Focusing on private secondary schools returns to private education are less than those in government schools. Parental expenditure per private school student averaged three times that of their government school counterparts. Despite the high costs of private education the actual cost of a private secondary education probably kept few children out of school. It seems therefore that to rely increasingly upon the parent within the state sector of education would do little to deter enrollment. It does however conflict with the earlier socialist policies of a free, equally distributed education system, to bring about equal access to economic opportunities.

A final issue regarding the quantity of government expenditure upon education focuses upon the absolute value of the investments being made. Africa includes many of the world poorest countries, and its situation is compounded by the shortage of foreign exchange with which to supply educational resources. This serious financial constraint restricts every

aspect of the formal education system.

The quantity of educational expenditure is also an important factor affecting the quality of education. An expanding education system requires proportional increases in the inputs necessary to maintain at least the quality of education-education resources (books, chalk, paper, subject resources etc.) and teaching staff (numbers, salaries and training), and buildings and maintenance. Each of these categories are in need of increased investment but is is suggested that the current mix in government expenditure is detrimental to educational needs, because the salaries of teachers constitute such large proportions. In Tanzania, for example, teachers' salaries are 90% (primary), 70% (secondary) and 50% (tertiary) of the expenditure on education. Arguably the salaries of teachers (amount and regularity of payment) reflect the value placed upon the profession, stimulating morale, and the quality of teaching. A good salary will also remove the need to undertake the secondary activities that many teachers are forced into to supplement their income in order to subsist. Delays in the payment of salaries creates problems for teachers.

Within adult education programs cutbacks in budget allocations have reduced supplies, with hardly any the students thereby increasing the cost to the extent that enthusiasm to participate in post-literacy classes is waning. Academic teachers have been relied upon to teach vocational skills such as farming, but lack adequate training to impart the skills and knowledge of agricultural techniques properly to students.

Formal versus vocational education. Disenchanted with the lack of relevance that pure academic education had for the majority of the population resulted in the development of dual educational systems and the increasing importance of vocational (skill-based) education, across the age range and the curriculum. The academic bias of formal education was criticized for ignoring technical and agricultural education,

depending upon an examination procedures which focus upon the advancement of students within the formal education system and failing, in its curricula and teaching methods, to serve the majority of students. Schooling was equated with education instead of with relevance.

The aim was to integrate a vocational element into the curriculum -for example primary education was designed to be integrated to provide students with comprehensive education suitable for self-reliant social and economic development.

Analyzing the outcome, Saunders 1983 and Psachoropolous 1985, focus particularly upon the failure of the curriculum to integrate the formal and vocational sides. They attribute this to the contrasting attitude and status given by parents and teachers towards vocational studies and the academic curriculum, the inability of teachers (due to lack of training) to teach the vocational side properly, the methods of assessment and their lack of egalitarianism, as elites continue to benefit disproportionately.

Psachoropoulos 1985 compares the benefits and costs of vocational and academic education. He concludes that costs are 14% higher in vocational schools than in those emphasising academic subjects, and that agriculturally biased schools are the least cost-effective, because of the need for specialized equipment. Secondly an analysis of employment type following education showed no major differences as a result of a curriculum bias-in the period spent unemployed, or in the type of work gained, or in the level of earnings-contrary to the policy arguments put forward to institute vocational education. Furthermore the estimated rates of return are found to be highest (6.3%) with an academic bias, against 1.7% for a vocational bias.

English as a medium of instruction. The use of English within education conflicts with the ideology that the development of a national language was a method of distancing the colonial past and asserting a national

identity. Internationally, the importance of English is without question, as most books, manuals and instructions are written in English. However, should English be used as the mode of communication within the classroom, or should the indigenous languages be utilized to continue to develop the national identity? This is an ongoing debate and a sensitive cultural issue. Equally, the adoption of English for economic development purposes would appear advantageous with a lack of books in local languages. Does the use of local languages impede development? The debate centers around whether education at the primary level should use English or not, especially as is has been identified that most students fail to continue into further education, thereby failing to achieve the higher academic levels that depend on a good knowledge of English. The problem still exists, however, with the minority who do move up through the academic system but are handicapped by a late adoption of the English language. The learning of another language in effect is postponed and arguably could be detrimental to the development process.

The maintenance of two languages within the curriculum would appear the only viable compromise, satisfying the needs for using local languages within the domestic context and the requirements of understanding English as the medium for international communication. This option, however, requires a significant increase in resources devoted to English teaching.

Equal access. Unequal access to educational resources emphasises disparities between the rich and poor, between urban and rural societies as well as between genders at all levels of education. The evidence of such inequality prompted many states, to expand the expansion of education -questioning its real purpose and value in providing greater equality of opportunity. The debate regarding the quantity and quality of education is further exacerbated by the debate about quantity and equity. The education system of most African countries tends to increase rather than

decrease these income inequalities.

Education is heavily subsidised by the state on grounds of equality of access for all citizens. Different levels of education are subsidised to different degrees. It is suggested that free education will aggravate social disparity rather than alleviate it. Enrollment into the tertiary sector is often free but restrictions on the numbers entering higher education are made by non-price means, namely examinations.

The beneficiaries of education appear to be those within society whose socioeconomic background permits and encourages the pursuit of education, and in general this includes those students with family backgrounds in high level occupations, land ownership, better education and high social status. The private costs of education for example extend beyond the payment of school fees-loss of labour and therefore income -handicapping the rural poor communities. Education may lead to a better understanding of farming practices, however comparatively few poor people have the financial resources with which to put into action the techniques learnt. The examination system, determining further mobility within the educational system, is a test of English above anything else, discriminating against the poorer rural students whose home environment is less likely to have a knowledge of English. The importance of the home environment to education is emphasised, linking nutrition levels, language, and economic position to education opportunity. Schooling the poor is quickly realized to be an escape from poverty for only a few (World Bank 1988).

Conclusions

Africa has low levels of development, even when considered in comparison with the rest of the developing would. Population growth rates are high, leading to high dependency ratios with almost half the population under the age of 15. Income levels are low, there is a heavy

relaiance on agriculture and a predominantly rural population. Investment is low and much production is for export, but is circumstances where world prices have become steadily more unfavourable toward the goods Africa produces. Aid receipts are high, but there are burdensome external debts, particularly when considered in relation to levels of output in Africa.

Food availability is lower than in other developing regions. Literacy levels are poor, enrollment rates in all levels of education are low and there is significant discrimination against females in the educational process. Health indicators show low life expectancy, high child mortality rates and poor provision of health services.

Economic performance has been poor, with output per head falling, although the inflation record has been good. The majority of African countries have responded to this situation by adopting liberalizing market-orientated reforms, and in some, but not all, countries this has resulted in market improvements. However problems stemming from political instability, droughts, the world recession and debt overhang, still remain.

These economic factors all serve to constrain Africa's ability to devote more resources to developing human capabilities, particularly in the areas of education and health. Inability to develop human resource, in its turn, slows the pace of development by limiting improvements in productivity.

Inadequate nutrition is widespread, and is a major cause of high mortality rates, particularly among children. Improved levels of development are necessary in tackling this problem, as well as better provision of water, sanitation and basic education.

Whilst policies in Africa such as free health for all are highly commendable, they have proved to be unsustainable. The economic crisis of the 1980s has forced Africa to look again at these policies and attempt to find other methods of providing an equitable and efficient system of health care. The introduction of user charges is an attempt to increase

the efficiency of the health system, and although politically unpopular, is likely to be an essential part of health services in the 1990s. It is clear that it is better for there to be drugs available, at a cost, than for there to be no drugs available at all. However, a safety net needs to be built into the system to ensure that the most vulnerable do not find themselves unable to pay for vital treatment. Expenditure on preventative measures must be maintained to ensure that the advances of the 1970s in such areas as immunization are not lost. It is also vital that the policies of the 1990s are administered as efficiently as possible so that the revenues earned are not then wasted.

Regardless of the aims of education, the importance of education economically, politically, socially, and culturally to the development of the individual and the nation—difficult to measure as they are—justily continued investment. Private investment should be encouraged. The government's role in the financing of the education sector, however, remains fundamentally important, as without it, access to education can be expected to become even more limited.

Within education there are a number of issues which affect the quality of education. These can be characterized within two criteria fundamental to the quality of education; the quality and quantity of investment, its source and returns; and matters of the curriculum including the type of education developed (vocational and academic), and the issue of language. If education is going to be successful in fulfilling the aims placed upon it then these issues require constant review.

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