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EDUCATION AND DEVELOPMENT IN SUB-
SAHARAN AFRICA: THE OPERATION AND
IMPACT OF EDUCATION SYSTEMS!

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EDUCATION AND DEVELOPMENT IN SUB-SAHARAN
AFRICA: THE OPERATION AND IMPACT OF
EDUCATION SYSTEMS

By

David Court and Kabiru Kinyanjui

ABSTRACT

The essence of the problem facing education systems in Africa is that the expansion of enrolments, in response to public demand, is exceeding the capacity of African economies to maintain educational quality. The gap in learning achievements between African students and those of the industrial countries is widening to unbridgeable proportions. This extent of educational deficiency has implications for the state of health, fertility and agricultural productivity of the populace and threatens a condition of perpetual intellectual dependency. There is an empirical relationship between educational attainment and the increase in human well-being and potential but much remains to be learned about its precise magnitude and the mechanisms that can strengthen it. Associated with the practical problem of inadequate basic education and the research problems of incomplete understanding is a shortage of trained analysts and researchers that make up the problem-solving capability of the African nations.

The significance of education in the debate about the means of fostering improvement in Africa lies in the demonstrated relationship between education and different forms of economic and social development. From the standpoint of this evidence, it is the low level of investment in human resources that accounts for much of the stagnation and decline that are afflicting most African countries. Despite impressive expansion of education enrolments in the last twenty-five years, there is a need for more education. The urgent questions facing African governments and donor agencies are what kind of education should be provided, what policies should govern its provision, and how can it be financed? This paper offers a broad review of the condition of education in Africa in an attempt to provide information and insight that can assist in thinking about these questions and about the ways in which education can contribute to development on the continent.

EDUCATION AND DEVELOPMENT IN SUB-SAHARAN AFRICA:
THE OPERATION AND IMPACT OF EDUCATION SYSTEMS¹

I INTRODUCTION

In a continent characterized by tumult and change in the past twenty five years there has been one fascinating constant. This is the persistent and seemingly insatiable public demand for formal education. This demand has been fueled by the abiding faith of individuals and governments alike that education can promote their economic and social well-being. The parlous state of sub-saharan Africa in 1985 would seem to provide little ground for this, or any other, kind of optimism. However, the recent accumulation of research findings suggests that this faith in education as an instrument of development is indeed not misplaced.¹ In the absence of other modernizing institutions schools have a beneficial social and economic impact that is wider and deeper than has heretofore been recognized. Colclough, summarising the research of the 1970s for the World Bank, concluded that education has the following consequences:

"It increases productivity in all sectors of the economy, reduces fertility, improves health and nutrition status and promotes significant attitude and behaviour changes, at the level both of the individual and the community, which are helpful to the process of economic development"².

From the standpoint of this evidence it is low level of investment in human resources which partly accounts for evident stagnation and decline in many African countries. There is thus a need for more education and the urgent questions are what kind of education should be provided, what policies should govern its provision and what means are available for financing it?³ These concerns have a salience and significance in the calculations of individuals, governments and international agencies which place education at the center of the debate about the means of fostering development in Africa.

The purpose of this paper is to review the condition of education in sub-Saharan Africa and assess the ways in which it can be enabled to contribute more effectively than in the past to Africa's declared development goals. In doing this we follow a series of steps. We look first at the historical conditions of education in post-colonial Africa and identify some of the principal achievements. We then describe the salient characteristics of the present situation in terms of what has not been achieved and follow this with a brief characterization of the different types of policy response that are evident among African nations. We next consider the context of education planning, drawing attention to some critical features of the society and the economy that condition the making of educational policy. The core of the paper consists of a series of analyses of some critical issues that face educational policy in Africa. After that some issues concerning the role of educational research are discussed and, finally, we enumerate some strategies and emphases for both national governments and international assistance agencies.

For every conclusion about a vast and richly diverse continent there are numerous national and regional exceptions. Africa contains oil exporting nations and countries with huge agricultural and mineral potential as well as the arid famine-stricken nations that are the subject of current newspaper headlines. Countries also differ significantly in the nature of their historical experience and political ideology. It is important to keep in mind this variety in any consideration of past experience or future policy. We proceed to make some generalizations on the premise that Africa as a continent does share some circumstances and face some problems that distinguish it from other parts of the globe. It hence permits collective analysis and merits sympathetic and constructive world attention.

II THE HISTORICAL CONTEXT OF EDUCATION IN AFRICA

Systems of education inherited by the newly independent nations of Africa in the early 1960s were designed to serve colonial and minority interests. Overall provision of education was grossly inadequate to the requirements of modern nationhood, with little more than one third of the relevant age group enrolled in primary schools, less than 3% in secondary schools, and a minute fraction in the few institutions of higher education that then existed on the continent.⁵ In the countries of colonial settlement, education systems were characterized by racially segregated structures and by corresponding imbalances in patterns of expenditure. Educational opportunity was unevenly spread within countries in relation to areas of colonial settlement, missionary presence and economic development. Curricula were infused with European content, practice and ethos and were administered and, at the secondary levels were largely taught, by expatriates. There was little technical or agricultural education and girls were hardly represented at all at secondary and higher levels.

Given the starting point of systems that were ill-designed for the economic and social needs of newly independent African countries achievements in the field of education since 1960 have been truly dramatic. The outstanding achievement of the last twenty five years has been the enormous expansion of educational opportunity, in the case of primary education from a small base to virtual universal enrolment in several countries, and this was accompanied by more extensive secondary enrollment as indicated in table 1. This expansion involved the removal of racial structures and the incorporation of groups who had no previous access to formal education, and was made possible by the dedication of sizeable public funds and substantial community effort in school building.

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19	Togo	44	111	63	135	24	87	2	31	..	2
20	Ghana	38	69	52	77	25	60	5	36	(.)	1
21	Kenya	47	109	64	114	30	101	2	19	(.)	1
22	Sierra Leone	23	39	30	45	15	30	2	12	(.)	1
23	Mozambique	48	90	60	102	36	78	2	6	..	(.)
Middle-income oil importers		42w	74w	52w	82w	32w	65w	4w	17w		
24	Sudan	25	52	35	61	14	43	3	18	(.)	2
25	Mauritania	8	33	13	43	3	23	..	10	..	..
26	Liberia	31	66	45	82	18	50	2	20	(.)	2
27	Senegal	27	48	36	58	17	38	3	12	1	3
28	Lesotho	83	104	63	84	102	123	3	17	(.)	2
29	Zambia	42	96	51	102	34	90	2	20	..	2
30	Zimbabwe	96	126	107	130	86	121	6	15	(.)	(.)
31	Botswana	42	102	35	94	48	110	1	23	..	..
32	Swaziland	58	110	58	111	58	109	5	40	..	..
33	Ivory Coast	46	76	68	92	24	60	2	17	(.)	3
34	Mauritius	98	107	103	107	93	106	24	51	..	..
Middle-income oil exporters		39w	101w	50w	98w	28w	75w	4w	17w		
35	Nigeria	36	98	46	94	27	70	4	16	(.)	3
36	Cameroon	65	107	87	117	43	97	2	19	..	2
37	Congo People's Rep	78	156	103	163	53	148	4	69	1	6
38	Gabon	100	202	124	207	76	198	5	34	..	..
39	Angola	21	..	28	..	13	..	2	..	(.)	(.)
Sub-Saharan Africa		36w	78w	47w	85w	24w	64w	3w	15w		
All low-income countries		80w	94w	69w	107w	34w	81w	18w	34w	2w	4w
All lower middle-income countries		66w	101w	76w	106w	56w	91w	10w	34w	3w	9w
All upper middle-income countries		88w	104w	93w	107w	83w	101w	20w	51w	4w	14w
Industrial Market economies		114w	101w	107w	103w	112w	103w	64w	90w	16w	37w

a Figures in italics are for years other than those specified. See the technical notes.

Source: Towards Sustained Development in Sub-Saharan Africa, The World Bank 1984.

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Table 1: Comparison of Enrollments at different education levels for Sub-Saharan African Countries Between 1960 and 1981

	Number enrolled in Primary school as percentage of age group						Number enrolled in secondary school as percentage of age group		Number enrolled in higher education as percentage of population aged 20 - 24		
	Total		Male		Female		1960	1981	1960	1981	
	1960	1981	1960	1981	1960	1981					
Low-income economies		32w	69w	45w	79w	20w	58w	2w	13w		
Low-income semiarid		10w	27w	15w	36w	5w	19w	1w	7w		
1	Chad	17	35	29	51	4	19	..	3	..	(.)
2	Mali	10	27	14	35	6	20	1	9	..	1
3	Burkina Faso	8	20	12	26	5	15	1	3	..	(.)
4	Somali	9	30	13	38	5	21	1	11	(.)	1
5	Niger	5	23	7	29	3	17	..	6	..	(.)
6	Gambia, The	12	52	17	67	8	37	3	14	..	..
Low-income other		36w	76w	50w	86w	23w	64w	3w	14w		
7	Ethiopia	7	46	11	60	3	33	..	12	(.)	1
8	Guinea-Bissau	25	101	35	141	15	61	3	20	..	..
9	Zaire	60	90	88	104	32	75	3	23	(.)	1
10	Malawi	..	62	..	73	..	51	1	4	..	(.)
11	Uganda	49	54	65	62	32	46	3	5	(.)	1
12	Rwanda	49	72	68	75	30	69	2	2	..	(.)
13	Burundi	18	32	27	40	9	25	1	3	(.)	1
14	Tanzania	25	102	33	107	18	98	2	3	..	(.)
15	Benin	27	65	38	88	15	42	2	18	..	1
16	Central African Rep.	32	68	53	89	12	49	1	13	..	1
17	Guinea	30	33	44	44	16	22	2	16	..	5
18	Madagascar	52	100	58	..	45	..	4	14	(.)	3

Accompanying the quantitative expansion came important qualitative improvements, including the adaption of the inherited structures and content in the direction of greater relevance to national circumstances and culture, first at the primary level and more recently in secondary schools as well. In many countries, a variety of education and training institutions has been added to meet the wider requirements of skills and services demanded by the economy. Adult education has become an important component of educational provision and in several countries, such as Tanzania and Ethiopia, massive and repeated national campaigns have made impressive inroads into widespread illiteracy. Increased recognition has been given to agricultural education through, for example, the expansion of farmer training centers and the greater emphasis placed on technical training and professional course under a web of private and Government auspices. Most ^{African} countries have established at least one national university. Nigeria with its oil revenues is exceptional in its network of State universities, but several other countries have developed multi-layered systems of higher education.

The localization of staff has proceeded apace with the educational administration and teaching force at the primary and secondary levels now almost entirely in national hands, and the number of expatriates in tertiary education has been steadily reduced. At the same time attention has been given to improving the qualifications of the teaching profession. The idea of using research to further understanding of the functioning of education systems in Africa has become more widespread. Most countries have become more adept in their ability to monitor increasingly complex systems of education, and the systems have been sustained by the dedication of innumerable teachers in far flung schools to improving the lot of the next generation and by their ability to improvise in the face of diminishing resources.

Improvements in the external efficiency of education systems are evident in the extent to which manpower targets have been met and in the less tangible, but no less important benefits, that accrue to a nation that has a more rather than less literate population. These social and economic outcomes of education are difficult to quantify but there is increasing

recognition of the wider developmental significance of education beyond the achievement of manpower provision and it is clear that one of the most important effects of expanded education has been to extend adherence of populations to achievement rather than to ascriptive norms and this has helped to hold together the nation state throughout most of the continent.⁶

III. SALIENT DIMENSIONS OF THE CURRENT SITUATION

Notwithstanding the impressive achievements of education systems in many African countries the present situation provides little ground for complacency. Symptoms of decline are everywhere evident and the most important can be quickly enumerated before we move to a diagnosis and some suggestions about possible treatment. The central problem is the fact that the post independence expansion of enrolments is exceeding the capacity of African economies to sustain their systems. Most African countries after a period of advance are experiencing a deterioration in the efficiency of educational provision and in the quality of instruction that they are able to provide. The general picture is familiar, but the full measure of the problem and its practical implications are not easy to digest. Several broad dimensions of the problem can be identified.

1. The continuing inadequacy of educational coverage

Despite the major expansion of education in all African countries that has been described the overall provision of education remains inadequate in relation both to economic requirements and equity considerations. This can be seen in the enrollment figure for 1981 shown in table 1. The significance of this evidence on the continuing deficiencies of educational provision lies in the strengthening consensus that it is the low level of human resource development in Africa relative to other inputs that accounts for the poor economic condition of most of the continent. From this perspective there has been overinvestment in physical capital -- dams, air-ports, building projects, irrigation schemes etc -- and an underinvestment in associated human capital. The observational evidence for this conclusion is very strong.

All over Africa one can find institutions and projects that are languishing or inoperable because of the absence of the trained people necessary to run them. Equally compelling on this score is the research evidence on the economic benefits which accrue to extended education in the form of greater agricultural productivity, labor efficiency, and so forth.⁷ The development of physical capital is hindered by the lack of the significant skills which education can provide. In addition to a complementarity between physical and human resources there is now also clear evidence that education produces major (indirect-economic) benefits in the terms of improved community health, nutrition, fertility regulation and general responsiveness of populations to technological innovation.⁸ In short, further expansion of education and training is a critical necessity for Africa's long term economic and social development.

2. The erosion of quality

A major consequence of the pressure of numbers on resources is the deterioration of a sizeable part of the primary school sector, and much of the secondary, into little more than facades for learning institutions.⁹ Such schools are characterized by large classes -- often approaching one hundred pupils -- and no desks, chairs, chalk, blackboards or other accoutrements of learning. Textbooks are unavailable or inappropriate and untrained teachers predominate. Grade repetition and drop out are common and although evidence is scanty it is almost certain that there has been a decline in average academic performance because of the deterioration of facilities, the decline in resources and the recruitment into school systems of disadvantaged groups.

More serious than the presence of untrained teachers is the decline in teacher morale. While in the past, the term "teacher" was a measure of respect, teachers commanded great status in the community and the profession was a sought-after one, today teachers are a beleaguered and a dispirited force. Those that can depart the profession and those that cannot seek ways of supplementing their incomes in a manner that inevitably has a deleterious effect on the quality of their instruction.

Associated with the decline in the quality of the state system is the erosion of public confidence. Those with resources opt out of the system at all levels from nursery to university, with an increasing number of parents sending their children to Europe or America for secondary and higher education.

3. Persistent Inequalities

Although impressive quantitative expansion has occurred, access to educational opportunities in most countries is still not evenly distributed across the sexes and across regional and social groups, and sharp differences in performances on national examinations can be observed. Educational policy in the early years of independence tended to ignore, and therefore to reinforce, historical disparities of these kinds. Correcting the imbalance was not at first viewed as a priority because of the absolute shortage of those with educational qualifications and the consequent stress on across-the-board expansion. At the same time, the need to fill positions in the expanding economy led to an emphasis on secondary and higher education for those who were already in the system at the time of independence.¹⁰

In the past five years issues of region, class and gender inequality have become matters of increasing visibility and official concern in most African countries. Some of this concern stems from a concept of development that emphasizes the equitable distribution of resources and the fulfilment of basic needs, including education, as a central purposes of social policy. A more urgent source of anxiety concerns the threat to an often fragile sense of nationhood that is posed by these continuing disparities.

Regional inequalities in the provision of education assume a particularly critical importance in Africa because they tend to be synonymous with ethnic disparities. Especially at the secondary and higher levels several countries have been forced to adopt regional quota systems as a way of responding to the threat to national

integration posed by differential access. However, data from several countries suggest that regional inequalities have persisted and indeed increased even in nations that have made major efforts to restructure their societies along egalitarian lines.¹¹ Foster has described the characteristic situation in sub-Saharan Africa:

"Inequalities of access are remarkably persistent and those regions that obtained an early lead in education development have tended to maintain their disadvantages even in later periods of rapid education diffusion. In fact, at intermediate stages of growth, the gap between the educational 'haves' and 'have-nots' tends to widen rather than diminish, even where mean levels of formal education are everywhere rising".¹²

The data concerning the effect of expansion on the access of different social groups is less conclusive. In the period of initial expansion systems were by definition relatively "open" in terms of the opportunities they afforded to children from rural and poor areas, and socio economic background was a far less important determinant of access and performance than it is for example in Britain and the United States. However, with the increasing differentiation of African societies, consequent upon the spread of a monetary economy, has come a corresponding differentiation of schools, and socio-economic factors are becoming more important than before in determining access to better schools and subsequent mobility.

From a developmental standpoint the most important aspect of present inequality in education concerns the restricted opportunities available for girls, particularly at the higher levels of the education system in Africa. At the primary level the expansion in female enrollments has been substantial, from 24% of the age group in 1960 to approximately 60% in 1985, with an increase at the secondary level from 3% to 15%. However as table 2 reveals there are sizeable differences between countries on these dimensions and a remaining aspect of the problem concerns the need to increase enrollement in the first cycle in those countries where it remains low. The more fundamental problem of gender inequality is a second order one that has to do with the limited access of girls to the higher quality secondary schools, to university, to science and particular professions and to training opportunities and scholarships of all types.

Table 2: Female Enrolment as % of total enrolled at different levels of the education system for selected African countries in 1978

	LEVEL OF EDUCATION		
	PRIMARY	SECONDARY	HIGHER
Central African Republic	-	-	17
Congo	48	39	13
Egypt	40	37	31
Gabon	-	-	24
Ghana	44	38	-
Guinea Bissau	30	19	-
Ivory VCoast	39	-	19
Kenya	48	41	24
Lesotho	59	57	47
Malawi	41	-	14
Mozambique	41	28	-
Niger	37	27	17
Senegal	40	-	20
Somalia	36	24	11
Sudan	41	34	23
Tanzania	46	34	8
Uganda	42	28	18
Upper Volta	37	-	20
Zambia	46	-	17

Source: Unesco Statistical Yearbook, Paris, Unesco 1981.

There is now research evidence to show that the education of women outweighs all other factors, including income, in its impact on a range of development related behaviours concerning child care nutrition and health.¹³ Thus the continuing restrictions on the educational opportunities available to women are not only a matter of inequity but constitute a serious retarding factor on national development.

4. The questionable relevance of education to employment

The dramatic expansion of formal education that has been described was a response to a shortage of middle level manpower. Ironically its most visible consequence has been the "school leaver problem" in which graduates of first primary and then secondary schools have experienced increasing difficulty in finding employment in the modern wage economy.¹⁴ The expansion has occurred so rapidly and massively that it has surpassed the capacity of African economies to provide the kind of occupations which school leavers had been let to expect. The pressure was felt first by primary school students whose leaving certificate was no longer a guarantee of employment. In the mid 1960s the period of shortage of those with secondary school education merged into a period of equilibrium in supply and demand, and by the mid 1970s unemployment among some secondary school leavers was noticeable for the first time. Because the jobs for which school leavers felt prepared were in town, urban migration has become an integral part of the school leaver problem. For most primary school and an increasing number of secondary school leavers initiation to post school adulthood consists of a frustrating round of job applications in town punctuated by periods of shortlived and demeaning employment.

The effect of worsening employment prospects has been to intensify rather than reduce the demand for education and has resulted in the now familiar phenomenon of qualification escalation in which students go on seeking ever higher qualifications. This is a rational response to an educational structure in which students have to complete one level before being allowed to enter the next and a social structure where there are few alternative channels to mobility. Since from each stage only a minority can enter the next stage, and the rewards to gaining entry are

high, the result is a system in which the main characteristics are competition and exclusion. As the majority at each level of the hierarchy will not proceed with further education - this means that schooling is inevitably geared to the interests of the minority who proceed rather than the majority who remain.

At the lower end of the scale only about 50% of African youth complete the basic seven year cycle of primary education and approximately 23% of this number continue to any kind of formal secondary level education. The majority of Africa's youth are left at an early age to fend for themselves in the arena of small-scale farming and rural enterprise. The great challenge for the school systems is to find ways of preparing them for the rural life that they will face and we discuss in a subsequent section some of the measures that are being taken.

At the upper end of the hierarchy the expansion has, paradoxically, not in most African countries produced self sufficiency in high level manpower and there remains a continuing shortage of highly trained people especially in the scientific and technical fields, with a consequent measure of dependency upon outside professionals.

5. Inadequate Planning and Management Capability

A final evident consequence of the pressure of numbers is the strain on management capability. Keeping the system afloat become the all-consuming preoccupation of Ministries of Education and little time is left for initiating qualitative reform in the curriculum or wider school structure. Management problems are compounded by the fact that in most countries the data base that is essential for effective management, the analysis of available options for reform and the reallocation of resources is incomplete, unreliable or unavailable. Nor is there in most places the critical mass of research expertise that is necessary for making good use of these data.

In summary, from an educators standpoint, the over-arching problem facing Africa at the present time is the poor quality of education for society in general and particular shortages of those highly trained individuals who can be the designers, implementors and catalysts of development policy. Quality improvement and cost-saving innovations--central themes of any educational strategy for Africa--require sustained attention to improved planning analysis and management capacity.

IV TYPES OF NATIONAL POLICY RESPONSE

Three distinct types of responses to the general problems just described are discernible in the educational policies of African nations in the last twenty five years: adaption of the inherited structure, the creation of a parallel system, and the rejection and transformation of the old system. It is not possible here to review each in detail but it is important to identify them in terms of their main characteristics. They are not pure types and any given country contains aspects of each, but they do reflect distinctive sets of policy emphasis.

1. The adaptive approach

In this first case are those countries which have kept largely intact the structure of the system inherited at independence and have concentrated on its adaption to meet new circumstances and on nationalizing it in terms of content and personnel. Evident in these systems are such emphases as the retention of a metropolitan language, and a stress upon examinations, international standards, higher education and overseas training, and a relative lack of emphasis upon adult literacy and the incorporation of previously neglected groups in the society. The main problem with systems exemplifying this set of emphases is that they are notably academic and elitist in their ethos and seem not to be catering for the employment and skill needs of large sections of their populations.

2. Parallel structures of non formal education

The view that the formal system was not providing relevant skills and values needed for employment and economic development led in many countries to the growth of a parallel structure of non-formal educational activities. A wide variety of out-of-school learning activities exist in most countries of sub-Saharan Africa. They are sponsored by a host of non-government agencies and involve literacy classes, vocational skills, agricultural extension, paramedical training and a number of other skill-providing programs. It is clear that in many cases these training programs contribute valuable means for improving the life and employment opportunities of participants, and have been especially successful in developing community leadership and social mobilization. They also provide an alternative ideal to conventional schools for organizing learning. Yet, surprisingly little is known about individual programs in terms of their efficiency and cost effectiveness. Where assessments have been made the record is mixed. The varied learning activities carried on outside the formal school system have proved to be neither an alternative education nor a short-cut to the rapid education of populations and the parallel structures have remained as second chance and second best institutions in the eyes of the population.¹⁵

3. Radical transformation

The third type of response has been based on a fundamental questioning of the appropriateness of the inherited structure to African circumstances and an attempt to replace it by a different and more relevant system. In some cases the radical critique and the formulation of alternatives emerged during the struggle for liberation from the colonial power. They were necessitated by the conditions of the struggle and were part of a larger rejection of the type of society that was seen to embody African oppression as was the case in Mozambique, Guinea Bissau and Zimbabwe.¹⁶ Elsewhere, as in Tanzania and Ethiopia, reformulation and experimentation were the result of ideological premises and policy positions developed by the State.¹⁷ However, despite the different origins of the two cases their principal emphases are similar and some of these can be quickly enumerated. The transformation of education was part of a wider

exercise of transforming the economic and political structure of the society. Education was expected to develop a new consciousness and new types of skill that would contribute to this transformation. Great emphasis was therefore placed on mass education -- both adult and primary -- rather than on the secondary and higher levels, and extensive use was made of literacy campaigns. The content of education stressed political understanding, practical experience and a pedagogical link to productive behavior in agriculture, health and nutrition. Prominent among structural emphases were the importance of integrating the school with its surrounding community, the ideal of collective decision-making, the utility of manual labor and the necessity of educating women.

A critical assessment of the experience of countries that, in face of economic or political circumstance have attempted fundamental educational change, is long overdue. For present purposes it is important to take note of three significant points. In the first place, while there is little evidence that they constitute a general model for emulation they have in several instances -- e.g. the stress on women's education, productive work, and local culture -- anticipated educational emphases that other countries have come to recognize. Secondly, in the case of countries that have emerged from a recent liberation struggle their experience has relevance to the possible future experience of those countries - e.g. Namibia and South Africa -- that have yet to attain majority rule. Thirdly, in relation to both these points, it is clear that whatever the political coloration of the regimes in question, they are grappling with issues of general concern in the continent and, because their experience is instructive, they should not be ostracized by western donor agencies who have reservations about their politics. Indeed the political labels themselves are misleading in the African continent because virtually all countries face the same contextual factors and have to deal with the same set of critical issues created by the particular circumstances of the continent. We now turn to consider some of these contextual factors.

V. THE CONTEXT OF THE POLICY RESPONSE

While this paper does not intend to address itself to the general political, economic and social dimensions of Africa predicament, it is necessary, however, before turning to some of the specific critical issues in education, to emphasize those particular features of the socio-political context that condition most the formulation of educational policy.

1. Explosive population growth

Africa has the highest fertility and the fastest rate of population growth of all regions in the the world, and the implications of this for educational quality are dire. The population of the continent is expected to double its present size shortly after the turn of the century. Some countries have growth rates approaching 4% per annum and 50% of their children below the age of fifteen. This kind of expansion exacerbates the tendencies already described, by increasing the demand for education and intensifying the pressure on limited resources. Recent UNESCO figures dramatize the relative plight of Africa in comparison with other parts of the world.

"Between 1985 and 2000 numbers in the 5-14 age group are expected to grow by 5% in more developed countries, by rather under 30% in Latin America and the Caribbean and by as much as 60% in Africa".¹⁸

By the year 2000 those in this age group will contribute one in seven of the population in the industrial world but one in four in Africa which means that "not only is there a bigger school expansion job to be done in Africa, but that there are proportionately fewer people in the working population to carry the burden of that schooling".¹⁹

2. Declining Economies

The pressures created by population growth are intensified by the economic problems confronting Africa. Africa also has the lowest per capita income of any region in the world and the lowest growth rate. Gross domestic product rose by about 3.5% between 1970 and 1980 but declined by approximately 1% each year between 1981 and 1983.²⁰ Set against a population growth rate of approximately 3% this represents a per capita decline over the same time of almost 4% per annum. Responsibility for this decline has been attributed to the oil price rise, declining commodity prices, the recession, increased debt service costs and famine and mismanagement. The recent global economic recovery seems to be bypassing African countries and it is clear that a rapid improvement in economic conditions cannot be expected.

In this grim economic situation, expenditures available for education are unlikely to increase relative to numbers of students or even in absolute terms. Many African countries are already spending as much as 20% of their total national budget on education and have reached the tolerable limit to the amount of public funds that can be devoted to education. The pressure on educational budgets comes not only from the per capita decline in available resources but also from a cost-escalation element associated with the fact that the current surge of expansion of education systems is occurring at the post-primary level which requires more expensive teachers, plant and equipment than are required at the lower level.

3. The political context

The combination of population increase and economic decline create a harsh environment for the expansion and improvement of education in Africa. A less obvious, but no less harmful constraint, on quality improvement comes from the political context within which education systems reside. Twenty five years after independence there is hardly a government in Africa that is not still striving to create a sense of nationhood and break down the parochial ties that are a constant threat to national unity. The paramount preoccupation is with establishing a unified economic and social

system and a synthesis of traditional and modern forms of administrative institutions. Because there was not a unified economic and political base it has been necessary to invest large amount of productive capital in institutions holding society together.²¹ One of the most important of these institutions is the school which hence becomes the focal point for converging political pressures. Because to distribute education at the upper levels is to distribute future status, schools are the arena for important political competition:

"Access to schooling becomes therefore a focus for individual and group conflict, whether it is perceived in terms of a rise in personal rank and monetary rewards or whether it is seen as an instrument through which diverse ethnic or social groupings can achieve an enhancement of their collective status in the emerging structure of the new status"²²

Variations in the distribution of educational facilities within African countries are hence a major source of political vulnerability, and finding some means of reducing this a continuing pre-occupation.

4. The Managerial Context

A further pervasive, but relatively invisible feature of the socio-cultural context of educational policy is the phenomenon which is loosely termed "tribalism" but has more aptly been characterized as the "economy of affection".²³ This is the system of reciprocal relationships based on kinship, residence and religion which tends to override other loyalties and constitutes a powerful social force penetrating all spheres of life and affecting all institutions and social relationships. In its impact on education it has been a positive factor in providing the driving force that has enabled homogeneous communities within African nations to act collectively to raise resources and to build and run schools. The Harambee self-help schools in Kenya are one of the best known expressions of this social force but there are other examples throughout Africa.²⁴

However, the impact of the economy of affection in the national context is less unequivocally positive. In the first place the strength of established familial loyalties and institutions tends to weaken the legitimacy of the national institutions that are assigned a central role in educational policy. One manifestation of this is the tendency for individuals and groups to direct public resources towards private and community purposes. In this situation extra organizational factors become critical in shaping institutional behaviour.²⁵ Institutions become subject to patterns of conflict between salient groups in society and positions within them become part of localized power struggles that have little to do with the qualities required of a particular job. Frequently actors in key policy positions are moved in or out with little regard for the health of the institution.

In its broader manifestation the economy of affection leads to an administrative culture -- styles of decision making, attitudes towards authority, assumptions about community and notions of merit -- that heavily constrain methods of management and can render ineffective seemingly beneficial inputs of skill and training. It creates a context in which western notions of management cannot easily be inserted and accounts for the ineffectiveness of so many aid projects which are predicated upon management styles and a set of assumptions about the behavior of bureaucracies that simply do not apply in the African context.²⁶

What is happening in Ministries of Education and indeed throughout the public sector is a departure from the norms and practices of the inherited civil service infrastructure. Among the most obvious manifestations of this change are the lack of respect for urgency, or disclosure, in dealing with the public, a chronic mobility among civil servants, the politicization of educational decision-making and an increasing reliance on oral rather than written communication that erodes institutional memory.²⁷ Contrasting with the information-orientation of donor agencies there is a retreat from the culture of literacy on the part of decision makers. They do not read very much and in a hierarchical and highly politicised structure, where the President of the country is frequently the main decision maker, there is a natural reluctance on the part of other officials to commit their views to writing until the official line has been prescribed.

5. The Aid Relationship from the Recipient Standpoint

The magnitude and diversity of the donor role in the development of African education has created a type of relationship with recipient ministries that heavily conditions the formulation of policy. Aid has undoubtedly made a massive contribution to the development of African education, but some of its characteristics have effects that are not always recognized or acknowledged. These effects stem from the volume of aid and the multiplicity of donors with their own styles, timetables, project orientations information requirements and demands for accountability.

The aid relationship is by definition an unequal one but the sheer volume of external funds creates a situation of dependency in which the "real preferences" of countries often have little chance to emerge. The extent to which some African countries have been willing to adopt external models and experimental projects, that were foreordained to be irrelevant or inadequate to any conceivable national purpose, is striking and is explained largely by the weak bargaining position of Ministries in the aid negotiation process.

The different styles and information requirements of various donor agencies presents an immense burden of absorption and adjustment to recipient Ministries.²⁸ Servicing these diverse information needs frequently absorbs most of the time of scarce Ministry talent. Common to most of the agencies is a desire to make a quick and distinctive impact which leads to a disinclination to support the simple, the routine and the proven, and a preference for buildings and bounded projects rather than long term measures involving recurrent costs. As result Africa has been host to innumerable projects experiments and models. In some cases -- "Swedish" Folk Development Colleges, "Cuban" agricultural schools, "British" libraries, "Canadian" technical colleges and so forth -- they reflect the wholesale transplantation of an established national model. In other cases they reflect the powerful and often short-lived fashions of passing donor conviction. Frequently in their more "innovative" form they consist of experiments that bear no relationship to any previous experience or demonstrable utility. The result is that educational provision in many African countries consists of a basic national system overlaid with a patch work quilt of semi autonomous projects of diverse multi-national hue!

Donor agencies proclaim a commitment to the principle of project replication but in practice often pay insufficient attention to the process of moving from the project to wider system generalization. Indeed the response to the management problems described in the previous section is an increasing tendency to accentuate the separate autonomy of their projects.

The impetus and the outcome have been eloquently described by King:

In the face of an analysis about the consequences of rapid educational expansion, many donors conceive of their comparative advantage in terms of demonstrating quality improvement in some part of the system. To ensure a successful high quality project ... there is a temptation to insulate the aid project against failure, by a series of coordinated inputs, including very close supervision. Project-related training and often some kind of special status, through interministerial committees, incentives for participating schools etc etc. Evaluation of the project when still aided is likely to confirm its success. But the very factors that ensured its success as a micro project ensure its failure when agency funds are removed. On paper the generalisation or replication of the project to other districts and provinces is assured. In reality, the micro project gradually returns to normalcy.

More aid is undoubtedly part of the solution to some of the educational problems of Africa but past aid has been part of the problem. Rationalizing aid coordination, practice and style can improve the situation, as above all can efforts to increase the capacity of African nations to participate more "equally" in the negotiations that determine aid patterns and practice.

VI CRITICAL ISSUES IN EDUCATIONAL POLICY

Having identified some of the broad symptoms of the educational crisis facing policy makers, the main types of response and some of the salient features of the context in which policies have to be fashioned we can turn to enumerate some of the specific critical issues that require urgent attention.

1. Modifying the terms of educational demand

Although the purposes of economic and social development in Africa require greater investment in human resources governments do not have the funds to finance the development or even the maintenance of their school systems. This is because education is highly subsidized, because the proportion of the total budget taken by education is already high and because the unit costs of further expansion are likely to be greater than those of the earlier phase. The danger of permitting further unquestioning expansion of education, in response to popular demand, under the present arrangements is likely to be the steady deterioration of facilities, the demoralization of teachers and the ritualization and impoverishment of the learning process that is already evident in several countries and many schools. New ways of organizing resources and channelling demand are essential.

One major part of the challenge is how to modify educational demand so that it accords more with social needs and what is financially feasible than it has in the past. As already mentioned, the strength of educational demand is evidently not weakened by the growing failure of those who have been to school to get the high paying jobs that they had hoped for. What sustains that demand is the fact that high rewards are rigidly tied to educational attainment and the propensity of employers to consistently upgrade the qualifications required for any given job level. So long as one type of formal schooling, with its associated examination structure, monopolizes access to positions of prestige influence and wealth, demand for that type of education is unlikely to be altered by exhortation, curriculum change or the more provision of other types. Eventually, of course, educated unemployment may reach a magnitude where people will begin to doubt the wisdom of their investment in education. Until that point is reached, the only way to modify demand is to alter the incentive structure so as to bring private calculations of costs and benefits associated with education more closely in line with social benefits.³⁰ One way to do this is to transfer more of the cost of education from the State to the individual and to reduce the pay differentials that are currently tied to higher level qualifications.

2. New means of financing education

Altering public sector salary structures as a means of modifying educational demand is fraught with political sensitivity, as it involves a self-denying ordinance on the part of civil servants. Some African countries, most notably Tanzania and Zambia, have managed to do this but a more practicable approach to influencing the terms of demand and expanding the resource base for education is to seek new sources of finance and new patterns of financing.

The opportunity, as well as challenge, is presented by the fact that in most African countries the national education system is heavily subsidized by the State at all levels. The evidence of rate of return studies suggests that primary education has relatively greater social benefits than secondary and higher levels.³¹ The conclusion from this evidence is that both equity and cost considerations point to the desirability of reducing the subsidies going to secondary and higher levels and channelling the resources saved towards primary education. It is not yet clear which are the most practical means for meeting the shortfall at the upper levels but both research and experimentation in different countries suggest that these are likely to include the imposition of fees, charges for accommodation and food, student loan programs, the development of private schools, and the involvement of the private sector in the provision of bursaries.³² One other method that has had a history of some success in several countries is the development of productive activities in schools, and especially farm production, as a means of supplementing the diet and offsetting food costs.³³

3. Improved Use of Existing Resources

In addition to the reallocation of resources between levels and types of education, the use of proceeds from production and increased user contributions as a further means of expanding the resources available to education is to seek ways of making more efficient use of existing facilities. A variety of possible means of improving efficiency can be envisaged. They include economies of scale - through increasing class size, enlarging student-teacher ratios and shift systems - the expansion

of day as opposed to boarding schools. the use of new technologies such as radio, the exploitation of alternative types of school such as Koranic schools, and modifications in the school calendar to accord with seasonal changes.³⁴ Although scattered examples of all these approaches can be found on the continent we will have to wait further research evidence to know which offer the most promising lines for cost reduction that do not at the same time impair quality.

4. The preservation and maintenance of quality

Given what has been said about the harmful effect of expansion upon quality it is clear that cost reduction has to proceed with an eye to the effect on quality. Fortunately research and past experience provide some guide to inputs that can contribute to improved quality. The main general point to emerge from research findings is that factors inside the school--curriculum, facilities, qualifications of teachers -- are much more important determinants of student achievement than they are in the industrialized world where social background factors have more influence.³⁵ What this means is that given the general poverty of most African class-rooms there is scope for quite simple interventions to have a disproportionate effect on quality.³⁶ Research points to three factors that are especially influential in their effect: measures that increase the morale and knowledge of teachers, the provision of textbooks and examinations.³⁷ Our knowledge about other factors that might be expected to influence quality -- the number of subjects studied, the length of the school day, the provision of school meals etc -- is not yet sufficient to warrant definite conclusions.

5. Deciding the content and form of relevant education

The massive expansion of education, especially at the primary level, has attenuated the link between schooling and jobs in the wage economy. It has forced educational planners to re-examine the purpose of the basic cycle of education to see in what ways it can be fashioned to anticipate the conditions of rural life that most students will encounter. As the ratio of students to job - opportunities has widened it has become correspondingly important to develop a new rationale for schooling other than preparation for a paid job. Thus anticipating self-

employment has become one of the most popular re-interpretations of the purpose of schooling in Africa.³⁸ Because self or underemployment will be the inevitable outcome for most primary students, and some secondary ones, the real purpose of schooling becomes preparation of the majority for unpaid work. The expectation is not that schools can create self employment, any more than they could create paid jobs, but that they can improve the quality and variety of the skills that students bring to life and work in their rural community. Three policy ideas have emerged from this wide-spread state of thinking among African educational planners: the concepts of terminal education vocationalization and productive school work.

a) Terminality

The recognition that most African youth will, even if lucky, be exposed to no more than the basic cycle of primary education has strengthened the view that this education should be complete and terminal in itself. It should stress skills relevant to the terminating majority rather than future requirements for those continuing with secondary education.

The major problem facing the implementation of this ideal is to decide which skills are most relevant to self employment in agriculture and petty training and which school subject can provide them. The purpose is defined in such terms as the provision of "survival skills" and "basic competencies" but the fact is that we do not yet know which are the essential cognitive pre-requisites for agricultural productivity and productive self employment.³⁹ In the absence of this knowledge two equally questionable tendencies are evident in the experimentation of African countries. One is to expand the number of subjects on the school time table in the hope that broad coverage will include items of relevance. The other is to increase the vocational and practical content of the curriculum in the expectation that this will provide useful skills and in some manner accustom students to the world of work.⁴⁰ There is little evidence to suggest that either of these responses is likely to provide the skills that will be actually be useful to students.

Furthermore, the task of achieving terminal education is not simply a question of finding the right curriculum content and combination of subjects but the more fundamental one of de-linking primary and secondary schools in the minds of students and the general populace. As long as secondary education is the route out of rural poverty into the security of an urban wage-paying job it will be difficult for a notion of terminality to replace the lure of secondary education as the reason for being in primary school.

b) School production

In the search for relevant schooling a significant number of African countries are becoming interested in ways of integrating productive work activities with the more academic aspects of the school timetable.⁴¹ Part of the rationale is the economic one, already mentioned, of recovering some costs through the sale of produce or the production of food. Equally important, however, is the idea that placing productive activities in the school can help to ease the move from school to work by beginning the transition within the school. Schools in countries such as Tanzania and Botswana have been remarkably successful in producing food for school consumption and sale. However, the socialization goals of school production have proved less easy to achieve because of the difficulty of reconciling the pedagogical and the economic aspects of productive work.⁴²

c) Vocationalization

Perhaps the most common response of Ministries of Education to the widening gap between students and jobs is an increasing emphasis on the vocational side of education.⁴³ This takes several forms and rationales. One form is that of a parallel structure to the academic system, in which technical, agricultural, and industrial schools are established with the aim of providing intermediate level of skills for the wage economy. A second type has a pre-vocational rationale that treats vocational education as a compulsory core component of the timetable and aims to encourage attitudes and competencies conducive to acquiring later employment skills. In a third type vocational education occurs in non-formal post-primary training programs.

There is a long history to vocational education in Africa. It was a central aspect of colonial policy, received the fillip of substantial commitment from post independence governments, has been a central plank of much donor agency assistance and established itself in extensive and diverse training programs during the 1970s. Ironically the current derive towards vocationalization and technicalization is occurring at the same time that research evidence is emerging to suggest grounds for caution before proceeding too unquestioningly down this road. In the first place, it is more expensive than general education and does not seem to achieve the economic and labor market goals that are sometimes claimed for it.⁴⁴

The important unresolved issues with regard to vocational education are its timing -- at what stage in the school system should it occur, its location -- where should specialized training take place e.g. in the school, on the job or in non formal settings, and the balance between education and specialized training. With regard to timing, it seems to be the case that the later it occurs the greater the efficiency and flexibility with which it can be taught. It is difficult to be definitive on the second of these issues as we have limited understanding of what exactly students do learn in school and what constitutes relevant personal competencies in relation to later technical skills. However, there is evidence to suggest that on both cost and pedagogy grounds technical training is best undertaken outside and not as part of general education.⁴⁵ It is clear that while there may be strong political grounds for emphasizing vocational education at all levels the economic grounds for doing so are weak.

6. National versus local types of knowledge provision

Efforts to increase educational relevance usually distinguish between two distinct types of knowledge and skill as forming the content of basic education. In the first place, there are skills and knowledge which do need to be acquired universally and can be prescribed centrally. The acquisition of literacy and numeracy and a common level of political knowledge fall in this category. In a different category are a set of more specific skills which relate to the dominant economic activities and opportunities of the local setting and of cultural understandings which determine the effectiveness with which local skills can be applied. These at the very least, it is argued, should be identified and

implemented by the local community. In practice it is difficult to distinguish between the different types and consequently to decide how much time should be allocated to each.⁴⁶

The dilemma of finding an appropriate balance between local and national learning needs can be illustrated by reference to the debates which surround the teaching of an international language in primary schools and over the proportion of time which ought to be devoted to practical and farm work in school. In most African countries an international language -- English, French or Portuguese -- is prescribed for all students, although for most it is a second language and for many a third, and on the surface appears to be of slight immediate relevance for the rural life that most will lead. Its requirement imposes a substantial learning burden on young pupils and introduces the risk that the international language and the culture which it embodies will foster an external perspective and frame of reference inimical to the development of locally relevant skills and a local frame of reference. On the other hand to abolish it would be to deprive the majority of students of access to an inestimable store of knowledge and medium of communication which have or may have long term-relevance to the goals of improved rural development.

If the language question poses the danger that linguistic access to the outside world may distract attention from local realities and priorities an emphasis on practical work and farm production can raise the opposite risk. Excessive concern to meet school production target or assist with community work may risk depriving students of the minimum amount of classroom time necessary for the acquisition of that basic platform of skills necessary for long term self-education and contribution to rural development. The general dilemma is the external one of finding a balance in curriculum content and allocations which ensures that long-term intellectual development is not sacrificed on behalf of a spurious short term practicality.

7. The dilemma of decentralization

The challenge of balancing local and national content in learning needs is mirrored in issues associated with the locus of administrative responsibility for education.⁴⁷ It is one thing to acknowledge that community involvement in educational decision making requires the decentralization of educational administration and quite another to achieve an effective division of responsibility between center and region. The administration of education in most countries is highly centralized. The historical reasons for such centralization are well known. They include the early concentration on training high-level manpower and relating this to national economic plans, a belief in the need for a uniform curriculum both to ensure minimum national standards and encourage desired socialization, and a view of educational resources as political assets for judicious patronage. The dilemma resides in the fact that effective educational reform seems to demand localization as an objective and centralization as a mechanism. Policies of decentralization and rural relevance in education require local participation, responsibility and control. On the other hand the desire for rapid and substantial structural change accompanied by broad-based socialization requires strong central prescription and control of the process.

8. Utilizing the power of examinations

Fortunately Ministries have, in examinations, an instrument that provides a means of central control and direction and an opportunity to monitor quality while at the same time encouraging the development of locally relevant self-employment skills and knowledge. In most African countries national examinations at each stage of the schooling ladder create a situation in which many are called and few are chosen. In education systems where opportunities decrease sharply with each successive stage, and where there are a small number of wage paying jobs, it is necessary to have a clear method of selecting the few who will proceed. That this should be a national examination system is inevitable in a pluralistic context where it is essential to have a selection procedure that appears to be "objective". Part of the importance of examinations lies in their selective function. In resource-poor countries it is

important that those selected for further education and training are those who are best equipped to make good use of it. The widespread variation in academic performance at secondary and university levels suggests that there is scope for improvement in the predictive and allocative efficiency of examinations. At the same time the experience of countries that have tried to replace examinations by systems of continuous assessment or principal's recommendation suggests that they may be even less efficient at identifying and promoting talent on an equitable basis than examinations.⁴⁸

One of the difficulties of trying to improve quality stems from the fact that school systems have the task of both educating everyone and selecting a few for desirable positions in the society. The two factors do not inevitably have to go together -- in the USA for example they are largely separate -- but where they do, as in most places in Africa, the selection function tends to dominate the educational task of the schools. What is taught is heavily influenced by what is contained in the examination rather than by the nominal syllabus or the broad ideals of the society. However, the very power of the examination over the behaviour of teachers and pupils provides an opportunity to use it for influencing what is taught in a positive fashion. In this connection, major examination reform in Kenya over the past ten years provides an interesting example of an attempt to use an elitist selection device to influence the learning of skills relevant to the majority who will not be selected for elite positions.⁴⁹

The essence of the reform has been a shift from an examination testing a body of knowledge that anticipates secondary school curriculum to one that attempts to test some of the "terminal skills" that are believed to be relevant to the kind of self employment in agriculture and petty trade that will be the lot of most primary school leavers. Thus where previously the examination call for the memorization and reproduction of a vast array of obscure facts in history, geography and general science it now, in many of the questions, provides all the facts that are required. These frequently have to do with situations and experiences that are directly relevant to rural life. The test then aims to elicit answers that depend upon inference, reasoning and imagination related to these facts.

The most visible function of the new kind of examinations indeed remains that of selecting for further schooling. However, this is no longer its main purpose which is to encourage the teaching of "survival" skills among all primary students. As a result the main work of those responsible for examinations has little to do with the selection of primary students - which is a relatively automatic process, determined by the machine processed scores -- and much to do with the analysis of the scores of those who are not selected and the search for ways of improving general performance. Because the examination is a standardized national test it can be used for important diagnostic and monitoring purposes both over time and between areas. Thus by means of careful item-analysis it is possible to ascertain which concepts and skills are being mastered by most pupils and which present difficulty. It is used to identify which teachers are especially effective in passing on difficult skills and which schools are cheating! Thus capacity for analysis and diagnosis is complemented by a set of feedback procedures for schools and teachers. For example an annual booklet identifying the particular areas of difficulty and needed further work, as revealed by the examination, is sent to all schools and similar booklets are prepared for teachers in the different subject areas.

The important general point illustrated by this example from Kenya is that it is possible to use an examination not only for identifying an elite through selection but also for developing skills and competencies among the general school-going population. It is possible to focus attention on curriculum content relevant to a terminal primary education irrespective of the strength of individual motivations concerning the desirability of secondary education. Thus in Kenya examinations provide a means of defining, encouraging and evaluating quality and as primary school enrollments expands it would seem to be a device with similar utility elsewhere.

9. National education in an international context

African education faces a major tension associated with the need to be responsive, on the one hand, to the historical circumstances and developmental needs of the mass of its people and, on the other, to maintain and encourage standards that are internationally acceptable. The problem arises from the fact that the idea of education, which African countries are trying to harness for the cause of development, is an imported one which despite major changes still retains in its content, structure and ethos many of the distinguishing features of the original model. However, these familiar residual features are less significant in themselves than the question of the extent to which education systems of the continent need to be based on a structure of international standards.

The issue is encountered at every stage of the education system. It is met, for example, in the question of whether an international language should be the medium of instruction in primary schools and whether the content, sequence and organization of schooling should, of necessity, parallel practices in other countries. It is encountered, perhaps most acutely, at the university level in decisions about what precise structures and practices are appropriate to the national role of universities and what is universal about universities.⁵⁰

An added dimension of the tension has arisen from the fact that the United States has, in recent years, replaced Britain and France as the automatic reference point of international standards. American support for tertiary level training and research in Africa has not only dispelled the early suspicion about American education that existed at the time of independence but has led to widespread emulation of American practice in such matters as recruitment, promotion and departmental organization in African universities. One awkward outcome of this has been to pave the way for the mobility of the educated. Although economic and political conditions in the continent have created a 'push' factor the maintenance of the currency of American qualifications has created the conditions for the eventual migration of the educated population in fields of international demand. A brain drain phenomenon is now observable from Ghana, Uganda, Tanzania, and Zaire to name only the most obvious cases. This is an indirect transfer of human resources out of the African continent and means, in the home countries, the non-availability of essential skills and

continued dependence upon imported manpower which can only be acquired at a premium.

The debate about the internationalism of African education has been clouded by polar perspectives. One view argues that, whether international standards are a product or a cause of the technological growth of the industrial world, for dealing with it on a basis of equality and for benefitting from what it has to offer. The opposite extreme is the view that to aspire to elusive foreign standards is to perpetuate Africa's cultural and technological dependency and to ignore the needs of the majority of the African people.

In reality this is not an "either-or" situation. Some educational practices and objectives -- particularly those involving a technology of research and teaching in say language, science and engineering -- do indeed seem to be universally applicable and useful. Others, such as the western concept of medical qualifications, for example, may have less relevance to African circumstances and requirements. The dilemma is what to borrow in the light of associated costs. The interdependency of the countries of the world in areas such as science and technology call for the internationalization of education. Isolationism in education at this historical juncture cannot be Africa's creed. The challenge is how to develop a cadre of scientists, professionals, researchers and managers who reflect the best skills that international training has to offer but who at the same time are committed to the development of their own societies.

10. The Role of Universities in Poor Countries

Much of the debate about relevance and development in education has revolved around the appropriate role for universities in Africa.⁵¹ During the 1970s African universities were subject to powerful expectations from national leaders and international agencies about their task in national development.⁵² These expectations stressed the singular responsibility of the university for serving its society in direct, immediate, and practical ways that would improve the well being of national populations.

The response of the universities to this clarion call for the assumption of expanded social responsibility and policy relevance differed from place to place. With varying degrees of imagination and conviction, African universities embarked on experiments designed to enhance the social relevance of what they were doing. Areas of change included: the search for closer links with government and policy making, an emphasis upon meeting manpower needs through vocational and professional courses, other kinds of curriculum change stressing attention to particular national problems, broader admission policies, work-study programs, new financial arrangements and sustained efforts to bring research and teaching into line with national circumstances.

Despite all these efforts it was clear by the beginning of the 1980s that nowhere had a compelling model of a relevant or "developmental" university emerged, to demand emulation across the continent, and that universities in general were in financial and political trouble. Criticism gained momentum on the grounds that they were not justifying their high costs in either a corresponding contribution to the improved well-being of their people or the transformation of their societies. Adherence to the metropolitan model from which they had sprung was seen to be inhibiting their ability to respond to the needs of their own society leaving them as islands of unbecoming detachment in a sea of poverty. Critics pointed to such characteristics as their disciplinary structures, specialized degree courses, elitist ethos, academic preoccupations, international pretensions, their apparent inability to find new ways of serving more people and their failure to "integrate" with other institutions in society.⁵³

As cost benefit analyses showed relatively greater returns to other forms of education, the tide of technical assistance turned against universities and towards primary, secondary, and technical education as better means of bringing tangible returns to the society.⁵⁴ At the same time the expansion of lower levels of education led to irresistible pressure for more places at the university which, in turn, produced overcrowding and the inevitable dilution of quality. Government pressure on universities to emphasize vocational and professional courses ran up against university concerns about autonomy and scholarship and, in face of the increasing incidence of student dissension, insistence on higher

levels of political conformity and on involvement in university decision-making has brought ever greater levels of staff demoralization. This was further exacerbated by financial pressures which kept salaries at a declining value and in many cases deprived universities of the very tools of their existence such as books, journals and paper.

It is clear with the benefit of hindsight that the expectations about how universities might transform their societies were inflated and misplaced. For most of the 1970s the newly established universities were preoccupied with the internal task of institution-building and were in no position to address complex developmental task. At the same time it is evident that universities are not the most appropriate institutions for providing vocational training or leadership in development projects. We have tended to lose sight of the contribution which universities have actually made, because they have been judged less by their actual achievements than by their failure to realize a set of powerful preconceptions that may have had limited applicability in the first place. Because university energies have been channelled towards activities which they were not always well equipped to carry out, we are in some danger in 1985 of losing sight of the things which universities can usefully do in the remaining years of the century.

The main achievement of African universities has been to establish their legitimacy as valued institutions. This has been done by improving the relevance of teaching and research to the national environment and by training their own staff. The curriculum, from being based largely on imported texts and theories, has now developed a degree of autonomy which provides its own momentum. Research from being a foreign-dominated activity is now an integral part of the university purpose. It is only now that questions of staffing and institutional identity have been settled that the universities are in a position to assert a developmental role based on commitment, conviction and consensus rather than as an artificial response to external expectations whether from government or international agencies. The challenge of the 1980s for the universities is to convince their governments and national populace that their contribution to development lies not simply in the extent to which they can meet manpower projections but also in their demonstration that, above all else, the process of development in Africa requires the kind of trained minds and thinking citizenry that universities are uniquely equipped to promote. Political pressure upon universities to produce technical and intellectual conformists leads to the self-fulfilling conviction that they are

dispensable, because other institutions can do this more efficiently. The role which universities themselves are beginning to assert is that their concern with development should stress the production of knowledge, values and understanding and constructive self criticism. That no claims are being made for the transformation of society does not necessarily signal a retreat from national purpose or from service to the community, but rather is an autonomous recognition of what the uniquely developmental role of the universities in Africa can be.

The challenge to donor agencies is to support this purpose. Universities in Africa are languishing for want of resources. For all of their problems they remain the principal means by which the continent can regenerate its scientific and professional expertise. They are also one of the few havens of reflection and critical thought in Africa. Donor agencies helped to bring them into being and it ill-behoves those from societies where universities are part of the national fabric to conclude, on the basis of their brief history, that similar institutions in Africa are irrelevant luxuries. To do so is to condemn the continent to perpetual intellectual dependency.

VII RESEARCH ON EDUCATION

Implicit in much of what has been said is a need for more and better research on education and improved research organization. This section examines some of the structural issues associated with this purpose and suggests some research priorities.

1. Institutional Development

From the standpoint of research the most important institutional development in the last ten years has been that of the universities that have just been described. Despite notable travails in some cases, and the need for constant refurbishment, they have in the major countries of the region developed to the point where they are a significant resource and source of expertise.

Associated with the emergence of universities has come the development of national research units in governments and parastatal organizations, including research and evaluation units in Ministries of Education, Central Statistical Bureaux and National Councils of Science and Technology. The emergence of these research institutions has been

followed in several countries by the formation of national educational research associations as is the case, for example, in Nigeria, Ghana, the ELS countries, Kenya and Tanzania.

An important outgrowth of the national institutions is the spread of regional networks for research on education such as is exemplified in East Africa by the East African Research Review Advisory Group (PRAG). In line with the original PRAG concept a group consisting of the region's leading educational researchers meet periodically to commission reviews of research - focussing both on significant substantive themes and issues of methodology. A major part of the aim is to identify and assess research that is not generally accessible in international publications and, in so doing, to help to correct the imbalance between north and the south in the research output on African education.

Another important institutional development has been the increasing interest of a variety of non-governmental organizations in establishing an improved research base for their work in education and rural development. Most notable are religious and womens organizations of various types.

Some important pieces of research have been produced by the various institutions mentioned, and they can help to guide assistance strategies. In Kenya, for example, the development of an education information system at the Central Bureau of Statistics has created a data-gathering capability that provides the basis both for the general allocation of resources and also for long term analytical work. There are, in short, some established institutions, some talented researchers and an embryonic research capability that needs to be more fully utilized in the development of educational policy by both governments and international agencies alike.

However, the vigor and depth of the research infrastructure should not be overstated and some significant problems remain for attention.⁵⁵ While there are some examples of good work, these are surrounded by a great deal of poor research, especially that which emanates from the education departments of colleges and universities. The small number of very able researchers tend to be scattered among different institutions which consequently lack depth in their overall research capability. Thirdly, educational research has been beset by isolationism

and territoriality. Researchers have shown little inclination to move beyond issues of the internal efficiency of education systems. Thus links between the education research units and corresponding institutions in community health, agriculture and population are virtually non-existent. Part of the problem stems from a historical tradition of educational research that has centered on the narrow issues of classroom pedagogy to the neglect of the broader issues of the relationships between education and development purposes. There thus remains an overriding general need to strengthen local institutional capacity for research and analysis in education. There is an urgent need for better research and research which is focussed on the relationships between education and different aspects of economic and social development.

2. Donor Support

Considering the amount of public and external funds that are being devoted to education the proportion of total resources devoted to research, beyond project evaluation, and to research training is miniscule. In the case of training there has been a decline in external support for Ph.D. level work overseas which can only have a harmful effect on the ability of the educational research community to regenerate itself. However, a recent development that will help to strengthen the research infrastructure in Africa is intensified USAID interest in education and training. This interest is described in the AID Policy Paper and in the strategy paper for the Africa region "Basic Education and Technical Training" which identifies several activities as fundamental to the extension and improvement of basic education in the Africa context. Among them are the "institutionalization and long range improvement of the indigenous information base and the strengthening of LDC capability for analysis, resource allocation and policy determination".⁵⁶ Particular relevance is placed upon sector analysis "a multi year collaborative project aimed at strengthening LDC capabilities in data collection, processing, analysis, policy formulation and management, as well as providing findings of immediate utility for policy".⁵⁷ A concrete manifestation of USAID intentions is a recently announced ten year project aimed at improving the efficiency

of education and training systems in five African countries (Niger, Somalia, Liberia, Botswana and Cameroon). The project will support research, planning and analysis of education, will build host country capacity to undertake these activities and will focus initially on the formal primary system. The project is hoping to develop a network for both information exchange and cooperation with other agencies.⁵⁸

One other organizational activity among donor agencies is worth mentioning in connection with the development and utilization of research on education in Africa. This is the International Working Group on Education (formerly Bellagio Group) which annually brings together the representatives of the main donor agencies supporting work on education. The meetings have generally been informal in style and have provided an opportunity for general exchanges of information and ideas, for concentrated attention to particular themes of interest e.g. literacy, the financing of education, and basic education were the themes of the last three meetings and reports on particular projects. During the past three years the composition has changed with the addition of "new" donors -- particularly the Scandinavians, Dutch and Germans -- and increased participation by African educationists. Meanwhile the leadership has been taken over by the International Institute for Educational Planning in Paris and the group remains one of the most useful available forums of coordination for agencies working in the field of education.

3. Research Priorities

Given the existence of a network of research institutions within Africa and the re-awakening of donor interest in research the opportunity now exists for some sustained attention to issues of common concern to the countries of the continent.

One of the most important research topics concerns the relationships between education and agricultural productivity and other developmental indicators such as health, nutrition and fertility. We now know that education is associated with a variety of developmentally

relevant behaviors. What remains unclear are the mechanisms that account for the impact of education on economic and social development.⁵⁹ The critical next step is to clarify how the internal processes of schooling affect an individual's later ability to adapt to the technological requirements of agriculture, health and other development domains. In the view of one well placed observer these relationships constitute the critical "missing link" on which educational research should be concentrated for the next decade.⁶⁰

A second cluster of urgent research questions are those that bear on women's education, the impediments to it and the consequences for development. The importance of accelerating the education of girls is hardly debatable but it has not happened, and a research program to examine why, and to lay out the dimensions of the problem in different settings, is long overdue.

Other topics for research attention stem from our earlier analysis. They include investigation into alternative methods of financing education; improved use of facilities and resources at the primary level; the optimum location of specialized and vocational training, and the content and process of scientific understanding in rural settings.

It is not difficult to alight upon a list of significant topics for research attention. The difficulty is one of implementation and arises from the fact that some of the most important research that links education to development impact requires a cross disciplinary approach which is not encouraged by prevailing institutional structures. At the same time there are limits to the extent that an external agency in particular can establish entirely new kinds of institution. The practical questions are thus how a new research approach can be fostered, where it might be located and how organized.

The kinds of organizations that have chosen to concern themselves with the cross cutting issues of education and development are international development banks, and development agencies. There are no obvious national analogues to these institutions. The nearest type of institution with a broad developmental mandate and multi disciplinary expertise is the university and, especially through its development studies

units, it represents the best bet for a coordinated approach. Alternatively, one might want to think in terms of new models such as non-profit consulting companies, or the kind of non government research centers that have grown up in Latin America.

VIII STRATEGIES FOR ACTION: THE ROLE OF NATIONAL GOVERNMENTS

In 1962, when most African countries were undergoing the transition from colonialism to political independence, the renowned French agronomist, Rene Dumont, wrote in his book False Start in Africa that "there are no magical solutions, including socialism that will relieve Africa of the hard work necessary to pull herself out of underdevelopment"⁶¹. In 1985, these words sound even more timely when we consider the crisis that Africa faces and the disastrous outcomes of the few experiments in African socialism. The magical solutions that failed to pull Africa out of underdevelopment in the sixties and seventies were mainly plans articulated and implemented by national governments which have led to many being replaced by military coups. Yet despite these setbacks national governments remain the prime movers in the theatre of African development. They are particularly critical for the development education, because their views and decisions not only shape the direction, utilisation and management of available resources, but also determine the parameters for action by others, such as local communities, non government agencies and donors. Issues such as the school curriculum, the distribution of educational resources and opportunities, selection procedures, certification and who qualifies to teach are all set and controlled by the state through its legal, political and administrative machinery. Even though governments are becoming over-stretched, and local communities and parents are taking an ever-increasing burden of educational financing the state remains the determining factor in the operation of educational systems. In this context several emphases and strategies seem urgent.

1. Improved planning and management

Given the central role of the state in the direction of education, one of the most ^{urgent} priorities of national governments is to improve the management and administration of Ministries of Education themselves. Part of the task involves the exploitation of available technologies -- more efficient information systems, better use of research and so forth -- that will achieve improved utilization of available facilities. Even more important is the human resource side of management which is currently characterized by a pervasive disregard for professional knowledge, unplanned and ill-informed interventions, expenditures without justifiable benefits, arbitrary staff transfers and a consequent instability in the system as a whole. Improved utilization of human resources for increased professionalism in Ministries requires such strategies as a decision-making system that encourages participation and a reward-system that encourages commitment on the part of professional staff.

2. Strengthening the morale of the teaching profession

At the school level it is clear that the quality of management has a significant impact on student and teacher motivation and hence on academic performance. Recruitment, salary and promotion policies that encourage the selection, training and rewarding of the most capable administrators and teachers, and in-service training measures that permit their constant refurbishment, can go a long way to improving the quality of education through strengthening teacher morale even where finances are scarce. Such measures need to be coupled with others that strengthen the sense of teacher accountability to parents, their community and Ministry officials. Where morale is high, and commitment is strong, inspection and supervision is likely to lead to increased efficiency and accountability.

3. Planning for quality

In the last two and a half decades Ministries of Education have been preoccupied with problems of quantitative expansion - managing increased enrolments, shortage of teachers, escalating costs and so forth. With the current rate of population increase on the continent the demand for education will intensify and the pressures increase to the

point where concern for quality is likely to be treated as a secondary issues. However, if the current trend towards disillusionment with the state system and the emergence of a dual structures is not to become irreversible Ministries must take deliberate measures to ensure the quality of educational output and strengthen the conditions that promote and increase high standards at strategic points within the public system.

4. Appreciation of the interaction and interlinkages between education and other societal institutions

Increasing demand for education creates an intensified pressure upon governments to devote resources to education at the expense of the other productive sectors of the economy. The extension of education needs to be placed in the context of increased food production and employment creation. This is not simply a matter of balancing the allocation of resources between different sectors but of increased commitment to understanding and fostering those types of education that have a demonstrated impact upon productive behavior in different domains of development. At the present state of knowledge about the "missing link" between education and development this probably means concentrating on basic general education rather than pursuing the chimeras of "industrial", "agricultural" or "vocational" types of education at the primary level.

5. Encourage alternative voices, views and self criticism within the education system

African education has often suffered because of a lack of organized alternative views to the dominant government voice. Vigorous debates on educational policies and principles are important for the development of sound strategies and require the encouragement and involvement of relevant interest groups, including teachers unions, parent associations, womens groups and student associations. Here we are calling for increased democratization within the education system, but are well aware that this cannot proceed in schools or education systems if it is absent in the society as whole. Despite what has been said about the continued paramountcy of the government in the direction of education part of the idea of encouraging alternative views is to also provide some scope for alternative initiatives and experiments by non government and community organizations.

6. Preventing the emigration of scarce talent

African governments today have a more qualified pool professional talent, that can be harnessed for improving education, than they had in an earlier era. However, policies in hiring, promoting, training and utilizing this scarce resource often leads professionals to seek opportunities outside their country. Discriminating measures to identify and encourage high level professionals need to receive more attention than is currently the case.

7. The political priority

The quality of governance is central to the likelihood of improved educational performance. The challenge is to encourage governments to take a hard look at the systems they have been operating and managing for the last twenty years and to explore ways of making them more quality-oriented and rewarding to teachers as well as pupils. Financial stringency often tends to deter change but much can be achieved without incurring additional expenditure and, indeed in our view, the changes that can be most effective are those concerned with improved performance of existing practice rather than a radical transformation of existing structures.

However, it is easy to propose remedies for evident problems but difficult to bring about the changes in behavior based on social values that, in the final analysis, will determine whether even straightforward remedies can be implemented. As Williams has made clear the challenge is primarily a political one:

"African societies and cultures contain in abundance energies and creativity. The task is to try to release them in the interest of children and the schools. How can one strengthen the perception of, and commitment to, the public good as a counterbalance to the deeply-rooted web of personal and social obligations to particular groups of kin, fellow tribesmen, clansmen or community neighbors? How can one ensure that the state, the government, the school are regarded as 'our' state, 'our' government, 'our' school instead of a source of patronage power and resource for advancement of private networks of social relations? While educational professionals have an important role to play, this task is one primarily for the national political leadership.

Exhortation is not a sufficient answer. It has been tried and will be tried, but has limited effect. Personal example has more effect. But beyond personal example one needs to create systems of management and incentives which return to communities, teachers, parents and students greater control over the education process.⁶²

IX STRATEGIES FOR ACTION: LESSONS AND PRIORITIES FOR INTERNATIONAL ASSISTANCE

The two most important strategies for the future of education in Africa lie outside education itself. These are the reduction of the rate of population increase and the revitalization of African economies.⁶³ However, improving the quality and coverage of education can contribute to these strategies in a process of mutual reinforcement. As the previous section made clear, the responsibility for creating the conditions that can enable education to contribute to the accelerated development of sub-Saharan Africa lies in the last resort with national government. International assistance agencies can support the emergence of these conditions and their ability to do so depends on a willingness to take account of their own past experience and to identify clear priorities.

1. Taking account of historical experience

The most obvious general lesson for donor agencies, thinking about innovation and strategies for the future, is the need to take cognizance of what has been tried in the past. Africa has a sorry history of educational innovations that were highly touted at the time of their inauguration and are now commemorated in broken radios, missing batteries, dust-covered science kits, immovable tractors, unworkable lathes and forgotten syllabi. There is an important review task waiting to be done in the form of histories of specific innovations -- "Radio learning revisited" or "What ever happened to Community Education?"; "Agricultural secondary schools" or "Diversified curricula?"

The recent World Bank review, Basic Education and Agricultural Extension, is an important and salutary reminder of the need to take account of historical experience.⁶⁴

2. Understanding the limits of technology

If we have learned anything about the development process in the last twenty years, it is that technological change is rarely itself a complete solution. It sets off other changes and has social, cultural and economic effects. Education is critical in ameliorating the non technical aspects of technological change although education itself seems to be infertile terrain for technological interventions. Anderson's dictum of ten years ago -- that "the educational process is unlikely to experience a major technological breakthrough" -- has been confirmed by donor experience since then.⁶⁵ For reasons spelled out recently by C.E. Beeby, improvements in education are more likely to occur as a result of incremental increases in understanding rather than from a sudden technological discovery.⁶⁶ It is just possible that technological change--micro-computers, TV, radio, etc. - will produce the educational equivalent of the ^{1950s} revolution but there is little to suggest that we should concentrate our efforts on seeking it.

3. Long term commitment and a broad-raunged strategy

The inclination to seek a dramatic breakthrough has meant that, historically, education has been notable for swings of fashion and cycles of attention. Higher education came into fashion in the 1960s, went out in the late 1970s and may now be on the verge of return as an object of donor interest. Emphases such as lifelong learning, non-formal education, community education centers, education and production, etc. have come and gone with bewildering and unwarranted rapidity. What is illustrated is a tendency to treat the part as the whole.⁶⁷ Some specific emphasis or technology -- textbooks, micro teaching, or radio learning -- is seen as the key to better education, and other factors are ignored. When the chosen factor fails to achieve what was expected, attention shifts to another element that is not yet discredited. The corollary within the agency is for the broad problem of the African country to become defined in terms of the narrow administrative category in which the agency organizes itself to address it. The agency then becomes captive of its own labels in how it approaches a problem. Avoiding this construction requires a broad-raunged strategy of what one is trying to do and an under-pinning institutional philosophy. Such an approach demonstrates long-term commitment, permits flexibility within a framework and offers a coherent image to prospective beneficiaries of assistance as to what the program is. The recent moves of USAID, CIDA and the Carnegie Corporation

in the direction of declared long-term strategies under the rubric of Human Resource Development reflect the recognition of the need to get away from some of the piecemeal approaches of the past.⁶⁸

4. Building on local incentive structures

Expensive experience has brought substantial recognition that education systems do not exist in a vacuum, making them open to easy manipulation in the direction of wholesale change. Rather, they are embedded in a web of values, interests and institutional relationships. As agencies think about new forms of research and training, the need to take account of what exists in the form of prevailing institutions, cultural styles and incentive systems is now an article of faith. It is not always honored in practice because frequently the prevailing circumstances and local realities suggest em.ases and activities that do not appear optimum or even desirable when looked at from the outside. The history of non-formal education and of examinations provide examples of this point. For much of the 1970s non formal educational activities were viewed from outside the continent: as a way of offering relatively cheap and more rapid means of "delivering" education, and substantial aid resources were devoted to this assumption. Yet within Africa there is little to suggest, from research or experience, that these activities are a realistic alternative to formal education although they may well be a useful supplement to primary education. The primary school remains the principal means of providing literacy, numeracy and the other purposes of basic education. Thus from an agency standpoint, there is a higher probability of extensive impact if reforms are directed towards the existing primary school system than in the search for an alternative institutions or technology.

Another example, of the benefits of building upon existing incentive structures is provided by the history of examinations in Africa. Looked at from the USA, or from the perspective of Dore's influential Diploma Disease, examinations would not appear to be a very relevant vehicle for donor agencies trying to assist improvements in the content and relevance of basic education.⁶⁹ Yet, in Africa as we have shown, examinations are a central part of the incentives structure and will remain so for the foreseeable future. Because of their

"backwash" effect, they have an immense influence on what happens in schools. Agency attention to strengthening national examination councils in Africa, their ability to develop effective and relevant examinations could have a significant impact upon the quality of education in Africa. The general point illustrated by these examples is that reform has most chance of success when it starts from what exists and what is influential in the prevailing educational context.

5. Balancing national and regional concentration

Another lesson from the past in institutional development is that national institutions for research and training fare better than regional ones. With one or two notable exceptions, the experience of donors has been that while economies of scale may frequently point in the direction of regional centers of excellence they have tended to be extraordinarily difficult to sustain in the face of problems of coordination and national sensitivity. However, the relatively greater strength of a national over regional institutions should not obscure the importance of seeking ways to foster regional interchange. Especially needed in the field of education is some focussed research and, in general, the creation of networks that can be a means for sharing regional experience.

6. Greater attention to implications of aid for the system as a whole

In an earlier section we drew attention to some of the problems associated with the multiplicity of aid-supported and often semi-autonomous projects in the field of education. The need is to get beyond the ritualistic commitment to replication and to build a concern for system-impact into initial project designs. This calls for some hard thinking about the long term consequences of a given aid activity including, in particular, the recurrent-cost implications. More broadly it may require new ways of organizing projects so that lessons about generalizability are gained from the project experience.

7. Local institutional research and training capabilities

In the past, some donor agencies have tended to focus on the product of assistance -- a well -- prepared plan, a convincing evaluation, a well -- constructed building, solid materials or an elegant curriculum -- than on the process from which these products emerged. There is now increased acknowledgement of the importance of paying attention to the empirical and analytical bases for policies and the general problem-solving process that is brought to bear upon educational issues. The kind of research and training that can improve understanding of educational problems requires above all else the development of strong national and regional research institutions.

There are several reasons why strong local institutional capability for analysis and research is a prerequisite for effective reform and a priority in any assistance strategy. One is the relatively greater likelihood of local institutions being sensitive to the nature of a problem, its context and the likely consequences of proposed reforms. The more important point, however, has to do with the imperative of reducing the sense of dependence that currently inhibits self-motivated reform in Africa. The drive for self-sufficiency and autonomy is in itself an impetus to development but a degree of achieved self-awareness and self-confidence is a prior necessity for effective educational reform. People need to recognize and understand a problem in their own terms before they will be willing to do something about it.

The continuing importance of this point stems from the increasing prominence of aid in educational as in other forms of development assistance. The World Bank for example dominates large-scale educational policy and practice in many African countries. Some of the results of aid have been constructive, others less so. The point, however, is that in either case local policy-makers go along with these plans with varying degrees of conviction and commitment. The continuing need is for a degree of local capacity in research policy and management that can strengthen recipient ability to set priorities and argue counter priorities and that can lead to policies that people actually believe in. The strategy paper of the Africa Bureau at USAID is notable for its emphasis on this priority and its recognition that universities present one of the best sources for its creation.⁷⁰

8. Improved planning and management

A related area, where aid can make a major contribution, is in improving the data-gathering and processing capabilities of education ministries. The urgent need in most African countries is for the establishment of a system for the regular collection and publication of basic statistics, on available resources and general performance, that can provide the data base for a country to know what is happening in its own system. Part of this task is the development of management tools such as resource allocation criteria, indicators of performance and principles of cost effectiveness which lead to better administration of the system as a whole.⁷¹

9. New forms of research

Donor emphases in the past, in keeping with those of African governments, have been on quantitative expansion and such expansion has been the great achievement of the past ten years. The need now is to pay relatively more attention to what happens inside schools once students get there and how this relates to other dimensions of human welfare. The World Bank has led the way in relevant research. It has shown what few in Africa ever doubted, i.e. that schools make a difference to academic achievement, and has begun to chart the magnitude of the effects of education upon health, fertility, income and agricultural productivity.⁷² Recent research has begun to quantify the relationship between education and particular aspects of human welfare, but it has not yet begun to sort out the precise mechanisms and conditions under which the relationships hold true. Part of the difficulty is that the traditional tools of assessment -- rate of return and cost-benefit analysis and manpower planning -- are more useful for quantitative approaches than qualitative assessment. Yet it is clear that many of the central issues of education are questions of values and motivation rather than numbers. There is hence a need for new forms of research that focus on content, quality and motivation -- what is being learned and why -- than on the numbers passing through.

"It must get beyond (below) the macro-issues of the econometricians, demographers and political scientists and provide more basic information and insight on local values, needs and motivational factors and concerns. It must help planners to plan rather than just project; explain the labor market rather than just count the workers; explain the motives rather than just describe the phenomena"⁷³

Such studies at the micro level with an anthropological bent can be a critical complement to the cross-national work of the World Bank, USAID and the IEA.

10. New forms of training for educational management

Closely related to the idea of new styles of research is the need for new forms of training. Donor agencies have supported training in the past, but it is clear that neither the right number nor the right type have been produced. There are some relatively respected examples of external training programs -- the IIEP Paris, the EDI Washington and a number of University-based programs, such as London and Stanford. They have provided adequate training in research methods but have been preoccupied with education-system efficiency itself or with narrowly defined economic and political outcomes. This is largely because we don't yet have a good grasp on what ought to be the relevant content for the training of analysts and managers concerned with the inter-connections between techniques developed outside Africa and the requirements posed by the particular circumstances of the continent.⁷⁴ The problem is less a shortage of money than of good ideas and institutions with an appropriately trans-sectoral outlook, although there are some models of institutions combining research, innovation and practice that may merit emulation.

In stressing the need for more and improved training, we need to guard against the notion that training alone can bring about institutional reform. It is a common experience of donor agencies for returned participants of training programs not only to fail to bring about institutional reform but to be constrained in terms of their individual contribution because of the absence of a supportive infrastructure. However, it is now being recognized that relatively modest resources to returnees and their institution can help to offset the constraint in which training is a necessary but not sufficient condition of institutional development.

11. Re-affirmation of Faith in Higher Education

At several points throughout this paper we have stressed the importance of universities and drawn attention to the damaging consequences of their present decline. It has been fashionable outside Africa to deride universities inside the continent as irrelevant or expensive, and some of their behavior may have warranted such an attitude. But, within the continent, they are valued and influential and for better or worse will continue to accommodate the intelligentsia of the nation and be the principal source of local expertise for research and analysis. Given their importance, it is clearly unwise for donor agencies to view them as undesirable luxuries. Because they have an enormous potential influence over the rest of the education system, the need is to seek ways in which they can be assisted to have a positive influence and provide the leadership and resources in research and training which they are uniquely placed to offer,

12. The education of girls and women

There is a relatively high level of resistance among the fraternity of Africa policy makers to outside prescriptions concerning the treatment of women. Such prescriptions are quickly caricatured as the translation of European and North American responses to their own feminists that have limited relevance to the complexity of gender relationships in Africa. This is an area which calls for particular sensitivity in the styles of aid agencies. However, the imperative to the expansion of educational opportunities for women comes as much from the goals of development as from concerns about equity. The research evidence is unequivocal in support of the conclusion that the education of women has a powerful independent effect upon the reduction of fertility and upon infant and child mortality. Hence supporting government plans for expanding the educational opportunities for women is one of the single most important available strategies for having an impact on African development.

13. Strengthening learning resources

Williams has equated the "learning-resource famine" with the more familiar food famine in the gravity of its impact upon Africa's future.⁷⁵ Aid agencies are in a good position to help resolve this first kind of famine because they can supply the foreign exchange needed to

purchase equipment, books, paper, transportation fuel and so forth which are the crucial missing ingredients of the educational enterprise in Africa. The general need is to strengthen learning resources within schools, colleges and universities and thereby increase the possibilities for independent study which does not rely on the presence of teachers.

14. Donor coordination

There is an urgent need for greater coherence in the overall aid process. However, there is an inevitable tension between the priorities and styles of individual donor agencies and the goals of coordination. One area where greater coordination may be possible is in agreements to reduce the burden of information demands that different agencies place upon recipients by greater standardization in their requests. Another area is in ways of structuring increased African participation in the inter-agency dialogues about aid that occur in a variety of gatherings such as the Inter-national Working Group on Education which was described earlier.

X. CONCLUSION

The essence of the problem facing education systems in Africa is that the expansion of enrolments is exceeding the capacity of African economies to maintain educational quality. The gap in learning achievements between African students and those of the industrial countries is widening to unbridgeable proportions and is threatening a condition of permanent dependency. Educational deficiencies have long-term implications for the state of health, fertility and agricultural productivity among the African populace and therein lies much of its significance. The empirical relationship between educational attainment and the increase in human well-being and potential is now clear but much remains to be discovered about its magnitude and the mechanisms which can strengthen it. Associated with the practical problems of inadequate mass education, and the research problems of incomplete understanding of the demonstrated relationships, is the shortage of trained analysts and researchers that make up the problem-solving capability of the African nations. Further investment in the human resources of the continent is an urgent requirement. Finding the finances and applying them strategically and imaginatively is the challenge facing African governments and the international community.

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