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**Ad hoc Experts Group Meeting on Assessment of  
Confidence Building Factors in School Curricula**

**18-21 October 1993, Addis Ababa (Ethiopia)**

**THE WAY FORWARD IN CURRICULUM DEVELOPMENT  
FOR SOCIO-ECONOMIC RECOVERY AND TRANSFORMATION IN AFRICA**

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## **I. Introduction**

With only a few years left to reach the eve of the twenty-first century, it appears there is very little room for optimism for many of us around the world. Indeed, as the future fades into that labyrinth of a forgotten past, there is the daunting outlook of people in poor countries (particularly Africa) who, in striving for the fabled goal of development in the twenty-first century, find that each development effort made leaves them slipping further back into poverty and below poverty line. It seems, however that experiences of developed countries have given rise to false and fitful gleams of the future insofar as models and strategies for development and structural adjustment programmes have been fashioned on past processes and patterns of industrialized countries.

No wonder our disappointments over what has been happening in Africa has made some of us declare the decade of the 1980s as Africa's lost decade because:

"It was the decade during which Africa evolved its own continental strategies and programmes of development, and yet most of its governments followed and implemented only those strategies and policy frameworks carved out for Africa from outside in order to have access to the "almighty" foreign exchange resources. Throughout the decade, Africa consistently and assiduously tried to put its economic problem, in the forefront of the global agenda and yet, at the end of the decade, became more marginalized and more peripheral than it has ever been. It was a decade when more resources went to waging conflicts, civil wars and internal strives than to education and health. Finally, it was a decade during which one and all in the international community agreed that Africa needed massive transfers of resources from abroad to enable it cope with the crisis and lay the foundation for an economic turnaround and yet, throughout the period, Africa became increasingly a net transferor of resources and the persistent victim of the reverse flows of resources."<sup>1/</sup>

Thus we cannot help setting our minds on seeking for breakthroughs, reforms, improvements, alternatives and strategies which might significantly change the role and impact of development on the lives of people in Africa. Yet the persistence of crises have resulted in major and questionable assumptions that the policy frameworks and strategies adopted by African countries were failing and seriously deficient in responding to human development needs. The

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<sup>1/</sup> Adebayo Adedeji - Laying the Foundation for Socio-Economic Transformation of Africa in the 1990's: The Development Policy Agenda, Statement made at the formal opening of the Seventeenth Meeting of the Conference of Ministers held at ECA, Addis Ababa, 9 May 1991, p. 2

strategies and policy frameworks were prepared and adopted because there was a general agreement by African countries on the existence of a crisis deeper and more pervasive than the struggle for independence.

The indicators of the crisis cited by these strategies and policy frameworks<sup>2/</sup> and other reports include, among others, the following:

- (i) Income per capita had steadily declined by about 2.6% per annum between 1988 and 1987 and was about 4% below its 1970 levels. This sharp decline in the standard of living of the people in Africa had severely affected and continues to affect all groups of the population such that about half of the people in Sub-Saharan Africa live below the poverty line with a good proportion of those dependent on external assistance for their survival.<sup>3/</sup>
- (ii) "Illiteracy increased in absolute terms in the continent. The average illiteracy rate in Africa at 55 per cent by world standard is quite high. For the first time during the 1980s, the rate of increase in education at all levels declined, from 8.7 per cent per annum in the 1975-1980 period to 2.17 per cent in the 1980-1985 period, representing a decline of 69 percentage points between the two periods. The high rates of illiteracy and declining rates of growth in school enrolments even at the primary level indicate that despite the efforts by most African countries to achieve universal literacy and basic education, progress in the regard remained slow. Africa's educational system continued to be weak with regard to the supply of technical and scientific manpower."<sup>4/</sup>

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<sup>2/</sup> The Strategies, policy frameworks and others include:

- (a) Lagos Plan of Action and Final Act of Lagos, adopted by Heads of State and Government of OAU, Lagos 1980. (b) ECA - African Alternative Framework to Structural Adjustment Programmes for Socio-Economic Recovery and Transformation (AAF-SAP), ECA, Addis Ababa, 1989. (c) The Khartoum Declaration: Towards a Human-Focused Approach to Socio-Economic Recovery and Development in Africa, ECA, Addis Ababa, 1988. (d) The African Charter for Popular Participation in Development, Arusha, 1990. (e) UNDP - Human Development Report 1992, Oxford University Press, 1992. (f) The World Bank - Towards Sustained Development in SSA: A Programme of Action, Washington D.C. 1984.

<sup>3/</sup> UNDP - Human Development Report 1992, opt. cited p. 14

<sup>4/</sup> ECA - Human Development Agenda for Africa in the 1990s A Programme for the Implementation of the Regional Framework for Human Resources Development and Utilization in Africa; ECA, Addis Ababa, 1993 [E/ECA/CM.19/9] p.1

- (iii) The disintegration of infrastructural and productive facilities was so pronounced resulting, for instance in the decline of agricultural output per capita and particularly food production so that, at least a fifth of the continent's cereal requirements were being imported at the close of the 1980's.<sup>5/</sup>
- (iv) Social services and welfare, especially education, public health and sanitation, housing and piped water supply had rapidly deteriorated such that:<sup>6/</sup>
- the population in Sub-Saharan Africa compared to other regions with access to health services (48% in 1989; to safe water (40% in 1990) and to sanitation (30% in 1989-90) was much lower than for all developing countries (of 64% 68% and 45%) respectively.
  - Life expectancy in the same Sub-Saharan Africa had risen from 40.00 years in 1960 to 51.8 years in 1990 but this was lower than the average of 62.8 years in 1990 for all developing countries.
  - the number of severely hungry and malnourished people reckoned to have been 80 million in 1974 had risen in 1990 to 100 million people who were affected by famine and malnutrition, the majority of whom were in Africa.
- (v) Poor maintenance and management and lack of renovation of the physical infrastructure and facilities built during the sixties and seventies, particularly industrial buildings, factories, roads, schools, hospitals etc. had so badly deteriorated, and in some cases were out of use.
- (vi) There were large numbers of refugees as a result of civil wars and strifes and natural disasters such as drought, famine, earthquakes and floods, and not counting economic refugees who were looking for greener pastures elsewhere.
- (vii) Employment situation in the 1980s was rather dismal. Wage employment in the formal sector accounted for less than 10 per cent of the total labour of about 240 million. The vast majority of this labour force depended for their livelihood on the agricultural and informal sectors which were experiencing low levels of

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<sup>5/</sup> ECA - Economic Report on Africa 1993, ECA, Addis Ababa, 1993, (E/ECA/CM.19/3) pp. 1-4

<sup>6/</sup> Data from UNDP - Human Development Report 1992 opt. cited p. 131

productivity. Open unemployment rate rose from 10 per cent in the 1970s to about 20 per cent in the late 1990's. On the other hand, real wages declined by approximately a quarter, while the minimum wage fell also by a quarter between 1980 and 1985.<sup>7/</sup>

As we move towards the twenty first century, the indicators highlight the fact that African economies are still not out of the doldrums and have not actually acquired the capacity (certainly not fully) for independent and sustainable growth. Accordingly, in implementing the adopted African development strategies and policy frameworks, it is necessary to re-examine once again, if not repeatedly, the implications of such strategies and policy frameworks for education, more particularly for curriculum development and evaluation. More important is the fact that the crisis mentality in Africa has led us to question the relevance and responsiveness of education to national development needs.

Ironically, however, the crisis mentality tends to offer us more hope and optimism than can be expected because it encourages us to believe that having critically analyzed our problems and formulated strategies and policy frameworks for Africa's development, there is urgent need to embark on educational reforms as part of the package for enhancing socio-economic transformation in Africa. More specifically, we need to review and assess the curriculum used in our education system for equipping the products of the system with knowledge, skills and attitudes for socio-economic transformation.

This paper will therefore focus attention on the development of education over the last three decades; the factors and problems that constrain human resources development and utilization, in Africa; examine Africa's strategies in human resources development, and the response of education to the challenges of Africa's socio-economic transformation through curricula reforms which may be pursued as the continent moves into the twenty-first century.

## **II. Education Development Over Three Decades**

A lot has been documented about the remarkable growth and development of African education over the last three decades.<sup>8/</sup> The expansion was necessitated by the fact that at the time of independence a large proportion of the African population was illiterate and the few who were educated did not have all the required knowledge and skills needed for national

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<sup>7/</sup> ECA - Human Development Agenda for Africa in the 1990's opt cited p. 1-2

<sup>8/</sup> See for instance: ECA - Trends and Issues in Africa Education: Education Monograph No. 10, Addis Ababa, 1992 pp. 3-12 and UNESCO - World Education Report 1991, Paris, 1991

development; and where they did, they were not in adequate numbers. Thus the continent embarked on wholesale expansion of education at all levels of the education system.

**Table 1: Enrolment (millions) of Education in Africa and Adjusted Gross Enrolment Ratios (percent 1960, 1970 and 1982)**

	1960		1970		1982	
	Numbers	Ratio	Numbers	Ratio	Numbers	Ratio
First Level	19.3	44%	33.4	57%	68.5	81%
Second Level	1.9	5%	5.4	11%	17.0	25%
Third Level	0.2	1%	0.5	2%	1.6	4%
All Levels	21.4	20%	39.2	34%	87.1	44%

**Source:** ECA - Trends and Issues in African Education - Education Monograph No. 10, 1992. p. 4

As can be observed from Table 1, primary education rose from a figure of 19.3 million pupils in 1960 to 68.5 million in 1982; whereas secondary education rose by five fold from 1.9 million to 17.0 million during the same period.

However, as pointed out earlier the 1980s were a lost decade for Africa even in education. The ECA Education Monograph Number 10 states that:

"In comparison to other developing countries of the world, total enrolment in formal education at all levels was lowest in Sub-Saharan Africa, except for the Arab States of North Africa and the Middle East - (Table 2)

Equally significant was that gross enrolment ratios by level of education between 1970 and 1990 were lowest in Sub-Saharan Africa. For instance, Sub-Saharan Africa registered enrolment ratios of 46.3% at the first level, 7.1% at the second level and 0.5% at the third level. The next lowest were in the Arab States at 62.5%; 20.4% and 4.1% respectively, but are much higher figures when compared to the Sub-Saharan Africa, (Table 3). Indeed even in developed

Table 2: Enrolment in Formal Education, 1970-1988 (millions)

	1970				1980				1988			
	First Level	Second Level	Third Level	All Levels	First Level	Second Level	Third Level	All Levels	First Level	Second Level	Third Level	All Levels
<b>WORLD TOTAL</b>	433.2	160.3	28.2	621.7	555.4	248.8	47.5	851.8	597.4	293.7	58.4	949.5
Developing Countries of which:	308.4	82.6	7.3	398.3	444.4	157.9	18.1	620.5	485.7	201.6	25.7	713.0
Sub-Saharan Africa	21.2	2.2	0.1	23.5	47.5	8.4	0.4	56.3	54.7	11.7	0.8	67.2
Arab States	12.6	3.5	0.4	16.5	20.6	8.7	1.5	30.8	28.2	3.8	2.3	44.3
Latin America/Caribbean	44.0	10.7	1.6	56.3	64.8	17.6	4.9	87.3	72.7	23.5	7.0	103.2
Eastern Asia/Oceania	145.8	35.4	1.3	182.5	210.2	79.0	4.7	293.9	197.2	83.6	8.2	289.0
Southern Asia	71.9	25.4	3.2	100.5	96.0	40.0	6.1	142.1	126.7	63.9	6.6	197.2
Least developed countries	16.8	3.5	0.2	20.5	31.6	6.6	0.6	38.8	41.7	9.3	1.0	52.0
Developed countries of which:	124.9	77.8	20.9	223.6	111.0	90.9	29.4	231.3	111.7	92.1	32.6	236.4
Northern America	37.7	16.4	9.1	63.2	29.6	16.9	13.1	59.6	31.1	16.2	14.0	61.3
Asia/Oceania	12.2	10.1	2.1	24.4	14.6	11.2	2.9	28.7	12.4	13.2	3.2	28.8
Europe/USSR	71.0	50.9	9.5	131.4	62.5	61.4	13.3	137.2	63.1	60.6	15.2	138.9

Source: UNESCO World Education Report 1991, Table R3

Table 3: Gross Enrolment Ratios by Level of Education, 1970 and 1990 (percentages)

	1970				1990			
	First Level	Second Level	Third Level	All Levels	First Level	Second Level	Third Level	All Levels
<b>WORLD TOTAL</b>	88.5	36.2	8.5	49.2	100.1	52.8	13.5	58.3
Developing countries of which:	83.5	23.9	3.0	41.8	99.8	44.9	8.3	54.0
Sub-Saharan Africa	46.3	7.1	0.5	22.4	76.2	23.9	2.1	41.9
Arab States	62.5	20.4	4.1	34.4	85.8	52.9	12.7	57.2
Latin America/Caribbean	90.7	25.5	6.3	52.3	109.3	57.6	18.7	69.7
Eastern Asia/Oceania	101.4	28.5	1.3	48.5	119.9	53.3	6.1	57.1
Southern Asia	70.8	22.3	4.9	35.4	88.4	38.4	8.9	48.0
Developed countries of which:	103.9	76.8	23.4	71.8	101.6	93.6	36.8	79.1
Northern America	103.2	93.1	45.4	85.0	102.3	98.9	70.4	91.8
Asia/Oceania	101.5	85.2	17.5	68.0	102.3	96.8	32.8	78.3
Europe/USSR	105.1	72.7	17.3	68.0	102.1	93.1	27.3	75.5

Source: UNESCO World Education Report 1991, Table R4

countries where enrolment ratios declined, they were comparatively higher than in Sub-Saharan Africa. However, as UNESCO observed "over the last two decades, among those regions whose first level enrolment ratios in 1970 were substantially below 100 per cent - Sub-Saharan Africa (46.3 per cent), Arab States (62.5 per cent), and Southern Asia (70.8 per cent - the strongest regional effort in favour of the development of first level education, as measured by the share taken by first level education out of the total increase in enrolment at all levels, was made by Sub-Saharan Africa, followed by Southern Asia and Arab States."<sup>9/</sup>

Actually the push in favour of first level education in Sub-Saharan Africa occurred in the 1970s; it slowed down dramatically during the 1980s because of the deteriorating social and economic conditions, and lack of human and financial resources, among others. Indeed, the continuing influence of low school participation rates during the decades of the 1980s will not alleviate the total number of illiterates notably in Sub-Sahara Africa where the absolute number of illiterates is expected to rise from 115.0 million people aged 15 years and over in 1970, to 138.8 million in 1990 and to over 146.8 millions by the year 2000 of the same age group (15 years and over). In spite of this apparent set back, there will be a general increase in literacy rates in the whole of Africa as demonstrated in Table 4.

**Table 4: Projected Adult Literacy Rates by Sex in Africa  
1990-2000 (percentages)**

Region	Year and Sex	1990			2000		
		Both Sexes	Male	Female	Both Sexes	Male	Female
Africa (All)		49.9	61.7	38.5	61.6	71.9	51.6
Sub-Saharan Africa		47.3	59.0	36.1	59.7	70.2	49.6

Source: ECA - Trends and Issues in African Education, Opt. cited P. 11 Table 8

These statistics have serious implications for the development strategies adopted by African countries as well as the development of education. It is important to recognize that in analysing the factors which constrain the development and utilization of human resources the foregoing statistics do play a part and must of necessity, be a force to reckon with.

### **III. Factors Constraining Human Resources Development and Utilization in Africa**

<sup>9/</sup> ECA - Trends and Issues in African Education opt. cited p. 6. Note: in the original text, tables 2 and 3 in this quotation as per Tables 4 and 5.

The development and utilization of human resources in Africa are constrained by an interplay of several factors related to the socio-economic situation of the continent. These factors, though not exhaustive, are: (a) the high rate of population growth with implied high level of unemployment and under-employment; (b) the deficiencies of the existing educational systems, both in terms of the relevance of education in response to national development needs, and in the production of adequate numbers of skilled and trained manpower, and in alleviating the high level of adult illiteracy; and (c) the lack of co-ordinated policies and programmes of human resources development as well as the scarcity and misallocation of human and financial resources in several fields.<sup>10/</sup>

#### **A. Population Growth, Unemployment and Underemployment**

According to ECA, "in 1992, the social situation in africa continued to be characterized by a deterioration in its parameters; increasing urbanization and population dislocation; and, the erosion of living standards and social welfare associated with civil strife, environmental degradation, growing open and disguised unemployment, declining real per capita incomes and the collapse in many parts of the region, of already inadequate and overburdened social and economic infrastructure. As government budgets are squeezed, public spending on social services such as education and health continue to suffer in real terms"<sup>11/</sup>

The situation is more alarming when account is taken of the fact that population in Sub-Saharan Africa is growing more rapidly than any other part of the world at 3.25% per annum. Even in the Arab States in the north, it is growing at 2.92% which is much higher than the 2.02% per annum for Southern Asian countries. With such a high population growth in the developing world, one finds that nearly seven out of eight of the world's children under the age of 15 now live in developing countries. In Sub-Saharan Africa, nearly half the total population is under 15 years of age, compared to only one-fifth in North America, Europe and Japan.<sup>12/</sup>

The youthfulness of the population in developing countries, particularly in Sub-Saharan Africa, has very serious implications for the development of human resources. In the first place, the task of education expansion is enormous; and second, there are proportionately few adults in the working population to shoulder the burden of educating the younger generation under the age of fifteen.

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<sup>10/</sup> ECA - A Regional Framework for Human Resources Development and Utilization in Africa 1991; and Human Development Agenda for Africa in the 1990s.

<sup>11/</sup> ECA - Economic Report on Africa 1993 UNECA, Addis Ababa 1993 (E/ECA/CM.19/3) p. 37

<sup>12/</sup> UNESCO -World Education Report 1991, UNESCO, Paris, 1991 p. 23

In Sub-Saharan Africa, for instance, the young-age dependency ratio of those aged 0-14 years compared to the 15-64 age group would have risen from 86.5% in 1970 to 91.9% in the year 2000. At the same time, the school age dependency ratio (6-14 year olds compared to the 15-64 year olds) would rise from 44.7% in 1970 to 48.9% by the year 2000. This means that in Sub-Saharan Africa, there are only two working age adults to every school age child.<sup>13/</sup> One serious implication of this is that the demand for teachers, qualified or unqualified, would be extremely high in a sub-region with few adults and teaching not considered as a good paying job.

Although many African governments have made great efforts in reorienting their economies towards significant gains in real growth, unemployment and mass poverty remain as a major problem for many governments. According to the ILO/JASPA report,

"available evidence reveals that the expected upturn in employment growth in Sub-Saharan African countries has not materialised. The growth of most economies did not reflect any significant improvement vis a vis the pattern that was experienced in the 1980s. The trend in recovery has not been significant. In fact, overall real per capita income declined by 2% in 1990 and 1% in 1991 for Sub-Saharan Africa as a whole.

The 1970 to 1980 period still remained the best decade when per capita income increased at a modest 0.9% per annum. Projections for the period 1990 to the year 2000 show an extremely modest growth of 0.3% per annum. In short, the long term prospects for economic recovery for Sub-Saharan Africa are both sobering and disturbing. While the average per capital income for most countries in the world is expected to rise significantly from 1990 to 2030, per capita income in sub-Saharan Africa could reach only \$400 compared to \$3,300 in East Asia, \$9,000 in Eastern Europe and over \$40,000 for the high income countries."<sup>14/</sup>

While there has been a large and continuing increase in the supply of labour in the form of numbers of entrants into the labour force during the last two decades, the demand for labour increased only marginally in most African countries. This may be attributable to the poor growth in per capita income in these African economies; and also due to the fact that "wage employment in the informal sector account for less than 10 per cent of the total labour force, while the vast majority of the labour force depended for their livelihood on the agricultural and informal sectors

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<sup>13/</sup> ECA - Trends and Issues in African Education; Education Monograph No. 10, opt. cited p. 13

<sup>14/</sup> ILO/JASPA - Report on the ILO/JASPA African Employment Report 1992, Paper presented to the Meeting of the Ministerial Follow-up Committee of Ten of the Ministers Responsible for Human Resources Planning, Development and Utilization, Addis Ababa, 1-2 May 1992 pp. 1-2.

which have been experiencing low levels of productivity. Underemployment - relatively low productivity - continued to increase in Africa throughout the 1980s and is estimated to affect about 90 million in the total labour force of about 240 million. The open unemployment rose from 10 per cent in the 1970s to about 20 per cent in the late 1980s and the real wages, on the other hand, declined by approximately a quarter, while the minimum wage on the average, fell by a quarter between 1980 and 1985.<sup>15/</sup>

In agriculture, in particular, labour intensity per unit of land continues to be low partly due to lack of proper utilization of manpower for increased output and employment, and improper use of agricultural methods and practices.

The decade of the 1990s did not start well for agriculture. According to data available, agricultural production (including fisheries, livestock and forestry) declined in developing Africa by 1.5 per cent in 1992 compared with an increase of 3.8 per cent in 1991, due to drought, and a fall as well as a slowing down in agricultural production.<sup>16/</sup> In the manufacturing industry, although there was a slight increase in outputs, the share of manufacturing in total regional GDP remains very low, at an average of 10.6 per cent in the 1990-1992 period. Equally important was that capacity utilization remained low, ranging between 30 and 50 per cent in most countries of the region.<sup>17/</sup>

The foregoing clearly shows the problem of development and utilizing human resources especially for/in agriculture and manufacturing industries is still enormous and must of necessity call for effective policy measures to be instituted and pursued vigorously. Suffice to say at this point that in many African countries, mass unemployment pressures do not visibly show because a larger portion of the labour force tends to be soaked and absorbed in the informal and agricultural sectors where more often than not, they are underemployed, especially when working on subsistence or family farms or small holdings.

## **B. Expansion-Induced Dilution of Educational Systems**

Following the independence, the main preoccupation of many African countries was the indigenization and localization of the civil services as well as the private and parastatal sectors of the economy. This necessitated the quantitative expansion of education between 1960 and 1980 resulting in an increase of the gross enrolment ration in the countries of sub-Saharan Africa

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15/ ECA - Human Development Agenda for Africa in the 1990s: A Programme for the Implementation of the Regional Framework for Human Resources Development and Utilization in Africa. opt. cited p.1

16/ ECA - Economic Report on Africa 1993 opt cited p. 13

17/ ECA - Economic Report on Africa 1993 op cit p. 21.

from 46.3% in 1970 to 77.1% in 1980 at the first level; and from 7.1% in 1970 to 18.7% in 1985 at the second level. Even at the third level, enrolment from 0.5% in 1970 to 1.3% in 1980. This expansion of education, however, tends to hide a number of detractions. First, educational systems in Anglophone and Francophone countries continued to be modelled on pre-independence fashions by being primarily directed at white-collar employment. In spite of major efforts, and the devotion of resources to education, little effectual change was made to curricula to reorient it to national development needs and to vocational training so as to adapt education to job opportunities available and for enhancing the productivity of the labour force in all fields.

Second, the successful expansion of education has resulted in the disappointments and frustrations of expectations of the education system in terms of social exclusivity or the non-availability of white-collar employment. Education expansion has put many school leavers on the queue for jobs, and the more the increase in school leavers, the less the premium of qualification of education at each level of educational system. This is so because of the world of work has imposed as a requirement higher qualifications for available jobs even when tasks have not seriously changed. Often this results in serious quest for paper qualifications without necessary changes or shifts in job requirements. Thus expansion of education brings with it induced quality dilution and in turn a demand for higher paper qualifications not necessarily responsive to national development needs.

There are also a number of imbalances that have arisen between the growth of the labour force, urban population and education growth on the one hand and the overall socio-economic growth on the other. Imbalances also exist between job expectations, job requirements, job opportunities and the structures of incomes; as well as on the factor mix because of distortions in factors of production and the prices of products. In short, it can be argued that the development of human resources, vis a vis education, was not well balanced, co-ordinated, and fully dove-tailed at different levels of the system with the requirements of the economy and the world of work. Education continues to produce people who find themselves ill-suited and ill-equipped to the demands of the economy.

This in turn has resulted not only in a large number of educated unemployed among school leavers and university graduates, but also in the increased and continued use of expensive expatriates while nationals are seriously looking for jobs. Indeed while educational expenditures have rocketed upwards particularly at the second and third levels, technical and vocational education remain less important and ignored with meagre resources devoted to their expansion. Thus the expansion of education at all levels of the system, as demonstrated earlier was a clear manifestations of sub-optimality in resource use in educational fields because African countries continued to import expatriate personnel in the technical, technological and scientific fields.

There is, therefore, that tendency to believe and argue that the post-independence education in Africa is still cumbersome, costly, inefficient; and nurtures irrelevant curricula which are implemented by ill-equipped and under-trained teachers. Indeed with low priority given to the teaching of sciences, technical and technological subjects as well as vocational skills,

education instead of accelerating socio-economic development, is actually slowing it down because it is failing to provide men and women with the critical knowledge, skills and attitudes urgently needed for Africa's socio-economic recovery and transformation.

Even in respect of professional and managerial as well as technical and technological skills, the situation has tended to worsen with the gathering of momentum of African development. Universities have not succeeded in producing the right mix of academics, scholars and graduates to provide the required manpower in professional, technical and managerial fields as well as spearhead leadership in research, professional, technological and managerial fields. Worst still, the few indigenous talents and skilled manpower have not been given due recognition and status by African governments thereby resulting into the "brain drain" phenomenon of highly trained and specialized nationals migrating to greener pastures in developed countries. The reasons for such migration vary from political to purely economic, and it is not the intention of this paper to discuss the brain drain issue at this juncture. Suffice to say that while Africa continues to import very heavily, expatriates at enormous costs to the continent, there are many highly trained African experts and specialists who are willing to return to the continent, if only conditions were made right. For the time being, the loss to the continent in terms of both human and financial resources will continue to be as severe as it has been in the past.

In essence, therefore, the enormous investments injected into formal education since independence have produced large numbers of secondary school leavers and university graduates and have flooded the labour market with inappropriate, and in others, deficient knowledge and skills for turning raw materials into finished goods, organizing and providing goods and services and managing production and services. It is also important to note that the real manpower bottleneck has not been so much as the shortage of university trained cadres, but rather middle level skilled and trained manpower. Emphasis should therefore be placed on technical, vocational, commercial and agricultural education particularly on the first and second levels of the education system since it is at these levels where the masses of the population require such knowledge and skills.

Over the last few decades, the gender factor has risen to prominence with the role of women in development activities. In fact, of the total population in Africa of 642.6 million in 1990,<sup>18/</sup> females constituted about half of this population. Of this total population, illiterate population of those aged 15 years and over was 138.8 millions. Female adult literacy rate of those 15 years and over was only 36.1% as opposed to male literacy rate of 59.0% in the same year.<sup>19/</sup> This low level of literacy of the women folk is partly due to the fact that education

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<sup>18/</sup> United Nations - World Population Prospects: The 1992 Revision, New York, 1992, Table A-2

<sup>19/</sup> UNESCO - World Education Report 1991 op. cit. Tables R 7 and R 8

system continues to give inadequate attention to female education as well as due to the social and economic conditions of the region.

One of the primary reasons for the gap between males and females in education is that:

"girls are brought up and educated for only 'traditional occupation.' Social custom often accounts for the popular belief that girls do not need an education since they will marry and raise children rather than work at a job outside the home where educational qualifications are required. A girl has the additional disadvantage of being born into a world that does not even expect her to succeed; a world that does not really want her to succeed, a world that has been systematically schooling her for failure."<sup>20/</sup>

Yet this should not be the case, because if you educate a woman you educate an entire family.<sup>21/</sup> At the same time, providing education to the women folk would ensure that women overcome social prejudice and discrimination, as well as ensure that they take command and control over their lives and not just to be confined to home and child bearing. Rather illiterate women should be provided with access to adult education, including child care facilities and night classes. At the same time there is need to develop adult education, social and literacy programmes to augment basic literacy and numeracy programmes so as to enable women play and participate affectively in decision making activities and national development efforts.

**C. Inadequate Institutional Machinery and Policies for Co-ordination of Human Resources Development and Utilization**

Often the problems of human resources development and utilization have been blamed on educational systems for ill-equipping the products of the system with either inadequate or irrelevant knowledge, skills and attitudes. Yet much of the fault and blame can be attributed to the established government machineries, authorities, policies and practices for the development and utilization of human resources.

First, many African countries lack a comprehensive and integrated approach to the planning and development of education at the three levels of an education system. They fail to plan education as a continuum of the same process. Very often the first and second levels are treated together during planning of education while the third level is treated separately. Second, different types of education provision are treated separately as for instance between formal and non-formal education. In fact, non-formal education is usually undertaken by various ministries,

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<sup>20/</sup> United Nations - Women: Challenges to the Year 2000, United Nations, New York, 1991 p. 33

<sup>21/</sup> United Nations - Women - opt. cited p. 27

institutions and non-governmental organization without the existence of any machinery for co-ordination of non-formal education programmes and activities.

Third, there is the inadequate co-ordination of training systems (both formal and non-formal training systems) and their integration in overall human resources development programmes. Above all, there is so much neglect of non-formal approaches to the development of knowledge, skills and attitudes in preference to formal training approaches. Indeed lack of integration of human resources planning in overall national development planning has proved counter-productive in the effective development and utilization of manpower.

Very often the Ministry of Education is mainly concerned with formal education at the three levels of the education. Non-formal education usually cuts across many ministries: education, health, agriculture, trade, works and supplies, community and social development, labour and social affairs etc. as well as non-governmental organizations. Training, both formal and non-formal also cuts across ministries and organizations. The office or ministry of personnel and management takes care of specialized and further training as well as staff development matters. Yet in all these activities there is very little integration and coordination with the central planning office or the ministry responsible for manpower development and utilization. It becomes a story of no concern to the left hand what the right hand does.

This lack of co-ordination and integration has proved costly to many African countries. There is misallocation of human resources, in as far as people are placed in jobs for which they are not qualified. This in turn leads to frustrations and waste of resources. The country does not know the actual stock of nationals with needed knowledge and skills. As a result, expatriates are hired when nationals can be recruited at less the cost of that of expatriates.

Attention should therefore be given to the effective co-ordination and harmonization of human resources development and utilization to avoid duplication and misallocation of resources; particularly with regard to training and the use of specialized manpower.

#### **IV. Africa's Strategy in Human Resources Development for Socio-Economic Recovery and Transformation**

The quality of available manpower and the motivation of the people to participate in, and contribute to development, are among the most vital elements in any country's socio-economic development and achievements. At least, this is borne out in the many pronouncements, policy frameworks and strategies adopted at various international, ECA and OAU Heads of State and

Governments Summits, Conferences, Meetings and Fora over the last two or so decades.<sup>22/</sup> Very high priority has been given in these documents to the development and utilization of Africa's human resources for socio-economic recovery and sustained development.

This section therefore, examines the basic elements of the policy frameworks and strategy for human resources development as well as the major areas and fields of human resources requirements.

**A. Basic Elements of the Policy Frameworks and Strategy for Human Resources Development**

African countries have recognized and accepted the policy implications and action requirements of the following basic elements in their policy frameworks and strategy options for human resources development and utilization. Put in a synthesized manner, the various documents have stated that:<sup>23/</sup>

- (i) Education must serve the objective of economic and social development and as such curricula and course offerings must be made relevant to the African scene and challenge of development. For this reason, educational facilities must extend to the masses in the production sectors.
- (ii) Special effort should be made to achieve accelerated training of middle and higher level technical, technological, professional and managerial personnel to achieve self-reliance in manpower resource needed in industry, agriculture, commerce,

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<sup>22/</sup> For full details see; (i) ECA Res. No. 332(XIV), Development Strategy for Africa for the Third Development Decade [E/1979/50, E/CN.14/725]; (ii) The Monrovia Strategy of the OAU Heads of State and Government, Monrovia 1979; (iii) The Lagos Plan of Action and Final Act of Lagos, Lagos April 1980; (iv) Africa's Priority Programme for Economic Recovery 1986-1990 (APPER); (v) UN Programme of Action for Africa Economic Recovery and Development 1986-1990 (UN-PAAERD); (vi) The Abuja Statement, The International Conference on Africa: The Challenge of Economic Recovery and Accelerated Development, Abuja, 1987; (vii) ECA, Khartoum Declaration on the Human Dimension of Africa's Economic Recovery and Development, Khartoum 1988; (viii) African Alternative Framework to Structural Adjustment Programmes for Socio-Economic Recovery and Transformation, 1989; (ix) ECA, Africa Charter for Popular Participation in Development and Transformation, Arusha 1990; (x) A regional Framework for Human Resources Development and Utilization in Africa, 1991.

<sup>23/</sup> See note number 22 cited earlier.

finance, trade, transport and communication, natural resources, public service education and other services.

- (iii) Eradication of mass illiteracy and a general improvement in the knowledge and skill-mix of the work force, should be energetically pursued, as well as increasing popular participation of the people in decision making, and enhancing the social, economic and political status of women so as to maximize their role in development.
- (iv) Education should foster in Africans a spirit of self-confidence, innovation, inventiveness and change and a positive attitude to work that engenders industry and productivity.
- (v) Higher educational institutions should develop closer links with agriculture, industry and other development sectors and seek academic excellence and opportunity for applied research in the challenges of social and economic recovery and transformation.
- (vi) National and multinational institutions should be strengthened and the establishment of new sub-regional or regional training and research institutions especially designed to meet Africa's specialized manpower requirements should be given full material, social and political support and full use made of their facilities.
- (vii) Special measures should be taken to attract back to Africa qualified Africans currently living and working abroad as well as evolving a programme that will promote the employment exchange and short-term release of African experts for service in other African countries where such expertise is needed.
- (viii) Co-operative programmes of manpower development and utilization should be given adequate resources at national and regional levels to ensure their effectiveness in achieving the goals and targets set for it:
- (ix) Develop manpower for integrating African economies and ensuring national, subregional and regional collective self-reliance through: (1) the integration of physical, institutional and social infrastructures; (2) the integration of the production structures; (3) the integration of African markets as well as the creation of an African Economic Community; and (4) the development, proper use and maintenance of the environment; and
- (x) Develop and use education so as to create and maintain, through improved governance, a political, social and economic climate conducive to continued economic growth and diversification.

Essentially, therefore, the various plans of action, policy frameworks and programmes, adopted within their broad objectives, the foregoing objectives encompassing, and in respect of, human resources development and utilization. The implications for education of these objectives are far reaching. It is therefore important at this juncture to highlight the major areas of human resources requirements.

## **B. Major Areas of Human Resources Requirements**

The human resource requirement in development process is measured in relation to the magnitude and type of tasks to be performed in both services and production. To avoid misunderstandings, however, it is important that we define what human resources is:

"Within the context of the socio-economic development realities prevailing in Africa, human resources could be defined as the totality of skills and knowledge available to any given society as well as the prevailing attitudes and resourcefulness of members of that society to manipulate natural and physical resources towards the production of socially and economically valuable goods and services. Human resources development denotes all actions taken to provide skills and knowledge to, and nurture attitudes in members of a society so that they are better placed to contribute to improvements in the standards of living in society. Human resources planning entails forecasting, in a systematic and conscious manner, the needs for skills and knowledge within a given time-frame and charting out the interventions required for meeting the need. Human resources utilization denotes all the measures undertaken to ensure that the members of a society are permitted to apply their skills and knowledge to the production of socially and economically valuable goods and services in a manner that would, in the process, be beneficial to them as individuals. There is an element of "conservation" which is equally relevant to the concept of human resources: this is the need to provide sustenance by making available to people a basic minimum package of health and nutrition programmes and by creating for them a physically and socially enabling environment within which they can operate effectively as members of society."<sup>24/</sup>

Given this definition, the various plans of actions, policy frameworks and strategies have recognized the following areas which require the development and utilization of manpower for the entire spectrum of knowledge, skills, attitudes and expertise in response to Africa's declared development objectives, namely: self-reliance and self-sufficiency in food; establishment of sound industrial base; physical and economic integration of the African region; development

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<sup>24/</sup> ECA - A Regional Framework for Human Resources Development and Utilization in Africa, ECA, Addis Ababa, 1991 p. 3

of capabilities for exercising effective control and sovereignty over the regions natural resources; establishment of security, stability and peace within and among African countries; and a substantial increase in the share of intra African trade.

In consequence, priority would have to be given to manpower development and training in respect of:

- natural resources exploration and exploitation as well as the development, preservation and utilization of the environment;
- the development of Africa's agricultural potential focusing on food production, food preservation and processing;
- industrialization and industrial development and exploitation of raw materials for industrial processes and products;
- all modes of transport and communications and energy infrastructure;
- administration and enterprise management as well as public services;
- education as a producer of trained and specialized manpower;
- entrepreneurial and indigenization of scientific and technological development;
- trade development and promotion

Having agreed upon this priority setting, the question to consider next is to determine the specific requirements of knowledge, skills, attitudes and know-how in respect of each priority sector, sub-sector and development programmes and projects. Attempt will now be made to highlight briefly some of the human resources requirements of these priority areas.

**(i) Manpower for the development of Africa's Agricultural Potential**

Food and agriculture constitute high priority sector in Africa's development strategy. In this regard, increased food production and improved productivity in agriculture call for mass education as well as the training in large numbers of devoted extension service personnel and workers and agricultural officers. In essence, increased food production would require a cadre of trained manpower in soil mechanics and management, as well as in the development of technologies and tools suitable for different types of agricultural zones (dry and wet areas for instance), in food processing, in the design and management of irrigations and in the development of new farming techniques.

In respect of research and development in support of agriculture, training would be needed in adaptive technology, in food processing, conservation, cultivation, storage and protection of food losses. Training would also be required for agronomists, hydrologists, veterinary surgeons and various specialists and experts in arid zone cropping, exploitation of forest products, in livestock, poultry, fisheries and in food crops that can withstand drought, as well as those crops that require less use of chemical fertilizers.

**(ii) Manpower for Industrialization and Industrial Development**

The focus of Africa's strategy in respect of industry is for the continent to increase the value added to Africa's natural resources, diversifying the range of exports, correcting the structural imbalances on the region's trade account as well as generating employment for the ever-increasing labour force. Also since industries must produce inputs for the development of other sectors in the form of capital goods, it is necessary to produce for the industrial sector, trained manpower and specialists and specific technical and managerial personnel in basic industries such as chemicals, engineering metals, food and agro-construction industries as well as various industrial technologies.

In addition, it will be necessary to produce middle level personnel and technicians in computers and electronics, accounting, operative skills, industrial supplies and distribution, and in the maintenance of industrial machines and equipment; and in service industries.

**(iii) Manpower for the Development and Utilization of Natural Resources and Environment**

The African continent is endowed with vast mineral resources constituting a substantial share of the world's mineral reserves. At the same time, it has a vast energy potential in the form of hydro-electric power, petroleum, coal, natural gas and considerable deposits of uranium. However only a small percentage of the huge hydro-electric potential has been harnessed to date. The continent also has a repository of biodiversity arising from her varied climatic and geological conditions with indigenous species of marine, riverine, and land fauna and flora. Besides, a lot of arable land is under-utilized. 25/

Trained and specialized manpower will be required for the exploration and exploitation of these natural resources; as well as for surveying and geochemical analysis and chemical processing and marketing of finished products. Africa has to produce these specialists and trained personnel whether at home or abroad but the major responsibility must remain that of the continent or else the natural resources will continue to be unutilized and untapped.

(iv) **Manpower needed for Developing Transport, Communications and Energy Infrastructures**

The Second United Nations Transport and Communication Decade in Africa (UNTACDA II) programmes and projects call for the training and mobilization of a variety, of knowledge and skills and large numbers of engineers, managers, technicians, transport economists, and other specialists and trained personnel. Such personnel is urgently needed to enable Africa meet its challenge of integrating its economy into the world economy to ensure efficient transport and communications. Indeed, industrialization will not effectively take place without better and improved transport and communications infrastructures for timely delivery of goods and services.

The production of such trained and specialized personnel poses a challenge to African policy makers to see to it that the required local, national and regional capacities and capabilities are created and sustained.

(v) **Manpower for Administration and Enterprise Management and Public Services**

In Africa there is urgent need to restructure and overhaul the civil services as well as improve the organization for managing the public service, raise the competence of civil servants through pre- and in-service training; improve the knowledge base of public administration and promote public service ethics.<sup>26/</sup> It will therefore be necessary to develop substantial administrative capability and management skills and knowledge at all levels of the public service; as well as conduct up-grading and training programmes in both the public and private sectors so as to develop the needed competencies, ethics and attitudinal disposition of staff.

Equally important is the development of knowledge and skills for public enterprise management as well as efficient financial management, and for developing and promoting investments and privatization. The challenge for developing such competencies are enormous.

(vi) **Manpower for Entrepreneurial and Indigenization of Scientific and Technological Development**

Faced with many problems ranging from natural disasters, poverty, unemployment, environmental constraints, population growth etc, Africa needs to equip its people with a wide array of scientific, technical, technological and entrepreneurial skills so that the majority of the population can cope with these problems. More important, the continent needs to keep pace with the rest of the world in the development of scientific and technological knowledge and skills which can be applied to the development of agricultural, industries, environment, transport and communication and the exploration and exploitation of Africa's natural resources. For this

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<sup>26/</sup> ECA - Strategic Agenda for Development Management in Africa in the 1990's Addis Ababa 1993 E/ECA/CM.19/11 p.3 for full details.

reason, Africa needs to build its human capacities and capabilities for developing scientific and technological skills and knowhow.

**(vii) Manpower for Trade Development and Promotion**

Africa has decided to move towards the establishment of the African Economic Community and with it strengthen subregional economic communities; reduce internal tariff and non-tariff trade barriers within subregional communities; creating free trade areas; co-ordinating and harmonizing trade policies; establishing an African Common Market as well as consolidating the structures of such a Common Market.<sup>27/</sup> The creation of an Economic Community and a common market will require the development of expertise in economic co-operation, trade, finance, industry as various sectoral policies. Africa will need to develop such know-how and competencies.

**(viii) Education as a Producer of Trained and Specialized Manpower and its own Requirements**

The required manpower in the foregoing areas such as agriculture, industry, natural resources, business and administration has to be produced by education and training institutions. Therefore to produce the required trained and specialized manpower for the development of the continent, African countries will need to put greater emphasis on the training of better qualified teachers at the first and second levels of the education system, as well as the training of teacher trainers, tutors, lecturers and research staff, administrators, technical and management staff.

Of particular emphasis is the training and development of a cadre of academics and research staff for tertiary level teaching in the sciences, mathematics, technical and technological subjects and research studies. Indeed training and staff development at the third level should receive the highest priority if the continent has to gain some measure of self-sufficiency and self-reliance in the development and use of its own human resources for the exploration and exploitation of its own natural resources. It must be emphasized that qualitative human resource requirements can only be produced by educational and training institutions which are themselves manned by a cadre of well qualified teachers, lecturers, tutors, trainers and academics at all levels of the education system. As a producer of trained and specialized manpower, education sector must itself be well endowed with qualified manpower.

**(ix) Education for the Establishment of Security, Stability, Peace and Participation**

The collapse of the cold war has come with a new era of democracy which is taking shape in Africa. African countries are going through a transition of experiments with democratic

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<sup>27/</sup> ECA - Strategic Objectives of Africa's Economic Development in the 1990's opt. cited pp. 24-25

reforms, pluralism and increased popular participation. However, if the new democracy is to be made relevant and consonant with the history, culture, moral values and norms of the people of Africa, education will have to play a major role in shaping the beliefs, values, attitudes and expectations of the people to be able to live a more meaningful and productive life.

For development to take place, there should be security, stability and peace in a country and that people should be fully aware of their role in national development activities. It is important therefore that people should be given the necessary education as well as ensuring that the majority of the population is made literate to be able to participate in the democratic process.

#### **V. The Way Forward in Curriculum Development for Socio-economic Recovery and Transformation**

Given the foregoing manpower requirements in the various sectors of the economy, it is important to decipher and develop the kind of education which will produce the right mix of knowledge, skills and attitudes urgently needed for socio-economic recovery and transformation. That mix can be achieved through the interaction of the curriculum and the learner through the medium of instruction. That kind of curriculum which we think is suitable is the subject of discussion in this section of the paper.

The analysis and proposals which follow are based on the fact that current educational systems and their curricula are often accused of failing to equip their products with the necessary knowledge, skills and attitudes needed in a world of change (political, economic, technological, scientific and social); that the current formal structures of education and their content, create divisions within society which leave behind them a flotsam of disappointed and disillusioned young people seeking employment opportunities which are difficult to come by; and that the provision of more schools and educational institutions is seriously constrained by the lack of financial material and human resources as well as the rapid increase in population growth.

Thus the proposals being made are based on the premise and belief that education should equip every individual with essential minimum learning needs viz; literacy, numeracy and verbal expression skills; knowledge of citizenship, of physical and social environment, and of health and nutrition as well as develop self-reliance and mental adaptability.

In particular such minimum needs should comprise of:

- positive attitudes towards other people and the community as well as the development of ethical values;
- literacy and numeracy to be able to comprehend and communicate easily and make simple computations in every day life and activities;

- a scientific outlook and an elementary understanding of the processes of nature particularly in such areas as health, nutrition, sanitation; food production; storage and processing and development of preservation of the environment;
- functional knowledge and skills for keeping and operating a household and fending for oneself and for engaging in income generating and productive activities; and
- knowledge and skills for participation and decision making in local and national affairs, civic and political duties as well as the democratization process; voluntary associations and co-operatives.

A curriculum being developed must ensure that these minimum learning needs are taken care of either through formal or non-formal education as well as the more advanced knowledge and skills.

However, before we can propose the kind of curriculum for socio-economic transformation in Africa, we need to be absolutely clear about the nature of curriculum as an interactional process which is political, social, economic, collaborative and incremental in nature. We should also be aware of the participants in the curriculum development process; as well as the levels of the curriculum development process, particularly those forces which influence the process.

Furthermore, to ensure that the curriculum being developed is responsive to national development needs, we need to develop a comprehensive curriculum design which actually involves taking certain basic actions so as to put the process of curriculum development into practice; as well as ensuring that a relevant curriculum design is selected taking into account certain design principles. All this is discussed hereunder before making a brief proposal of the type of curriculum we would like to see pursued for socio-economic transformation.

The proposal is brief and general rather than detailed and specific because Africa is such a diverse continent whose ills may not necessarily respond to the same prescription for a remedy. It is for this reason that we stick to the principles and generalities rather than the specifics. The details must remain for each country to fill.

#### **A. Nature of Curriculum Development**

At the outset, a distinction should be made between curriculum, curriculum design, curriculum planning, and curriculum development. A curriculum is used typically to refer either to a plan for educating youth or as a field of study; i.e. a curriculum is made up of those particular aspects of life, knowledge, attitudes and values selected from the total culture of a society for transmission to future generations within the structure of educational systems.

Curriculum planning therefore, refers to the ways in which educators make these selections and put them into practice.

When the intent is to identify the collective components of the substantive entity, that is, a plan for instruction, the curriculum is being considered as a "design". A curriculum design therefore, is the product, the substantive entity, the end result of the decision-making process. On the other hand, curriculum development is the process, the syntetical structure, the interpersonal dynamics of decision making about instructional planning i.e. when the focus of attention is the people and operative procedures out of which the design or plan for instruction emerges, the reference is ordinarily to curriculum development. 28/

The essential elements of curriculum development process involve issues of power, people, procedures and participation. Curriculum development cannot be properly done unless we have clear answers to the following critical questions:

- Who makes decisions about curricular issues?
- What choices or decisions are to be made about curriculum? and
- How are these decisions made and implemented and by whom?

In answering these questions, curriculum development is often characterized as interactional process which is political, social, economic, collaborative and incremental in nature. In proposing the way forward in curriculum development we need to understand this interactional process.

#### (i) Interpersonal Process of Curriculum Development

To begin with, curriculum development is an interpersonal process of operation for making decisions about where curriculum planning will take place i.e. the political zone of influence; who will be involved in the planning, selection and execution of the working procedures; and how curriculum documents will be implemented, appraised and revised.

Curriculum development is a dynamic and complex network of interactions among people and forces all of which occur in fluid settings or contexts which are continuously in a state of emergence. In essence, the particular contours of the process are shaped by as much by the legal arenas in which the curriculum decision making takes place as by the composition of actors, and by the substantive demands of the instructional issues under consideration: whereas procedural dynamics of curriculum development may be the same in different localities, the people involved and the decisions to be made will vary according to the society and culture of the people for

whom curriculum is being developed. These issues are central to the consideration of curriculum development and must be attended to if we are to make any headway.

**(ii) Political Process of Curriculum Development**

Although local, regional and national governmental agencies regularly engage in policy making about instructional programming, the government in general exerts the overall control of what schools should teach by outlining the national education policy and the general requirements of the curriculum.

Politically, curriculum decisions are made at very high levels - presidential, ministerial or cabinet. At this level, decisions about the overall policies on education, objectives and range of subjects are made. At this level, a president may pronounce that the teaching of this or that subject may be included in schools without any reference to the public; just as much as political decisions are made about human and financial resources made available to education. Also, the selection of curriculum objectives, content, activities and evaluation are influenced as much by societal values and politics as by pedagogy.

For this reason those entrusted with the tasks of curriculum development should take cognizance of the political process of curriculum development i.e now presidential decrees and cabinet and ministerial decisions are translated into objectives, subjects, content and instructional activities. This is particularly important for curriculum developers to know or else content and activities proposed will not be in tune with political decisions taken and the resources allocated to education.

**(iii) Social Process of Curriculum Development**

As a social enterprise, curriculum development requires that the interests, values, ideologies, priorities, role functions and differentiated responsibilities are taken into account because any kind of educational change always involves human, emotional and valuative factors.

More important, a school curriculum is inextricably interwoven into the patterns of relationships, social positions, and expectations, and values of the different individuals, groups and cultural ecologies that make up social communities. For this reason, curriculum cannot be separated from its social contexts; nor can it exist in a vacuum. Effective curriculum development requires concomitant change in the established normative structures of school communities; in existing patterns of interpersonal relationships; in peoples' attitudes in what is most worthy of knowing; and in the perceptions of individuals and groups about educational roles, power, purposes, and procedures. As one specialist put it, "in order to change the curriculum, the social fabric must be changed, and broadly conceived then, the problem of

curriculum change is a problem in social engineering and social change".<sup>29/</sup> In this regard, people's values, interests, ideologies, priorities and expectations must change for curriculum development to effectively take place.

**(iv) Co-operative and Collaborative Process of Curriculum Development**

Instructional planning involves a variety of technical and human relations skills involving different priorities, perceptions, vested interests and value commitments. For this reason, no one individual can complete curriculum tasks single-handedly. Therefore co-operation in curriculum development is essential.

The technical complexities of curriculum construction as well as its social and political character require many kinds of competencies in different combinations at different points in the developmental process. However, the decisions about who participates at what point, when and how must be based upon the distinct functions to be served and the competencies of the participants in curriculum development. Therefore to paraphrase Taba, effective curriculum development must operate on the principles of co-operation, collaboration and shared responsibility within the contextual framework of contemporary and differentiated levels of involvement.<sup>30/</sup> We need to add here that in responding to development challenges in Africa, the tasks of curriculum should not be left to a handful of experts whose competencies may be lacking in the social, political and co-operative process of curriculum development. This is one reason why the colonial curricula lacked responsiveness to national needs as the collaborative and co-operative aspects of curriculum development did not feature highly.

It has to be emphasized therefore that curriculum decisions are made at three different levels viz:

- the instructional level or by classroom teachers;
- the institutional level or by the school system personnel; and
- the societal level, or by the boards of education, governmental officials, curriculum committees and a plethora of interest groups.<sup>31/</sup>

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<sup>29/</sup> B.O. Smith, W.U. Stanley and J.H. Shores, Fundamentals of Curriculum Development. Harcourt, Brace and World, New York 1957 p. 440

<sup>30/</sup> Hilda Taba - Curriculum Development: Theory and Practice, Harcourt, Brace and World, New York, 1962.

<sup>31/</sup> M.W. Hirst & D.F. Walker - An Analysis of Curriculum Policy Making. Review of Education Research No. 41, Illinois, 1971 pp. 479-509.

Given these three levels of decisions, collaboration and co-operation are very essential to ensure that all vested interests are taken care of; that the various technical skills needed for qualitative curriculum planning are included; and that coherency and cohesion exist throughout the curriculum development process. For without these, little progress will be made in ensuring that curriculum responds to national development needs for socio-economic recovery and transformation.

(v) **Disjointed Incremental Process or System of Decision-Making of Curriculum Development**

Perhaps what is important to recognize is that curriculum development is neither purely rational and scientific nor a neatly sequentialized and systematic process because of lack of co-ordination of the various sets of decisions necessary for curriculum planning. More important to note is that curriculum decisions are frequently made through small or incremental moves on a given or particular problem rather than through a comprehensive reform.

No wonder, one specialist has described curriculum development as a "historical accident instead of a completely rational-technical process. i.e. that historically curriculum planning has been the outcome of a very long and dynamically complex process of social involvement and interaction. It is not something that has been deliberately chosen and rationally developed for a specific purpose it is intended to serve."<sup>32/</sup>

For Africa to move we need to make a change in the ideal and image of the curriculum development process. We should not see curriculum development process as a carefully planned and rational system of operations. Rather, we should recognize that:

"Curriculum changes are necessarily subject to the operation of enormously powerful social forces that cannot be possibly brought under the control of any technical procedures or systematically designed process. The action of these powerful forces is influenceable at times and in some ways by such social forces, and professional educators charged with responsibility for curriculum maintenance and change, need to learn how to cope with those forces as well as they can. The image of the technician at the control panel directing the entire operation needs to be replaced by a more realizable one, perhaps that of the mountaineer using all the tricks of modern science, together with personal skills and courage and an intimate study of the particular terrain, to scale a peak."<sup>33/</sup>

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<sup>32/</sup> J.B. McDonald - Curriculum Development in Relation to Social and Intellectual Systems; in R.M. McClewie (ed) - The Curriculum: Retrospect and Prospect, University of Chicago, Chicago, Illinois 1971 pp. 95-113

<sup>33/</sup> D.F. Walker - Towards Comprehension of Curricular Realities in L.S. Shulman (ed.) - Review of Research in Education Vol. 4, Peacock, Itasca, Illinois 1976, p. 263

## B. Participants in the Curriculum Development Process

To understand the dynamics of curriculum development we need to be clear as to:

- Who controls the decision making process of curriculum; and
- How is this control exerted?

In answering these questions, we need also be aware of the two major categories of participants:

- Participants in the -planning process- (such as clients, critics, professionals, legislative groups etc.) and
- Resources for the planners (covering authors, publishers, testers accreditors, pressure groups, media)

Planners make policy and determine the substantive details of curriculum designs while resources monitor the process of planners, serve as quality controllers and suggest alternative realities for consideration in curriculum planning.

In general, however, the major actors and influences shaping curriculum decisions may be classified into two groups viz: the Internal and External forces. Internal and formal determinants of curriculum are those forces which are legally responsible for curriculum policy making and planning; and whose involvement is channelled through some regularized and structured arrangements. On the other hand, external and informal forces exist outside governmental structures and the administrative bureaucracy of school systems, since they influence curriculum planning through irregular patterns of pressure politics and powers of persuasion. These two groups of participants, their relationships and how they interact are shown in Table 5.

However as pointed out earlier, curriculum development concerns questions of values, politics, power, and control so that even what appears to issues of consensus such as teaching basic literacy skills raise several possible answers which are often put forward by a variety of individuals and interested parties at the various levels of government, voluntary agencies, private organizations, companies and associations. We consider these levels next.

## C. Three Levels of Operations of Curriculum Development Process

The major legal and internal factors and determinants of curriculum policy and planning processes are the structures of government of the education system which often establish general educational policies and curriculum guidelines. In Africa, the relative distribution of authority

among governmental agencies and school system officials as well as the extent of the specific kinds of external pressures which impinge upon the internal systems of curriculum decision making vary greatly from one country to another and from Francophone to Anglophone countries. What follows hereunder therefore, are perspectives on the operations of the curriculum development process at three levels viz: local or district; state or regional; and national or central levels and how an understanding of these would help us better develop the needed curriculum for socio-economic recovery.

(i) District or Local Level of Curriculum Development

In many African countries, particularly English speaking countries, the local education authorities or district education authorities are entrusted with the tasks of providing a basic minimum education to children of school going-age; provide instructional and residential facilities as well as equipment and consumable materials to supplement government efforts. The local education authority is not legally responsible for curriculum development nor does it actually engage in curriculum planning. Such tasks are the responsibility of national or central government through the Ministry of education. Thus curriculum development is not so much

Table 5: The Web of Forces Influencing the Curriculum Development Process

	EXTERNAL		INTERNAL	
	Formal	Informal	Formal	Informal
	Forces influencing the process	(a) Testing bureaus and boards (b) Professional Associations (c) Accrediting associations (d) Public opinion polls (e) Lobbyists (f) Student/parent/business (g) Labour organizations (h) Regulatory agencies of governments	(a) Special interest groups (b) Publishers of instructional materials (c) Mass media (d) Individual critics (e) Socio-civic crises (f) Customs and traditions (g) Philanthropic foundations (h) Pressure politics	(a) Governmental authorities (b) Advisory and administrative agencies (c) The law (legislative acts, court decisions, funding patterns) (d) School governance structures (e) District and building administrators and teachers (f) Bureaucratic style of school system (g) Resources and facilities (h) Decision-making system (i) Subjects taught
Curriculum Decision				
Clients	Society Parents Employers Institutions of higher learning		The curriculum plan Teachers Students School system	

Source: Adapted from Nicholas E.J. 1980 A comparative view of curriculum development. In Kelly A V (ed.) 1980 Curriculum Context, Harper and Row, London pp. 150-72

of a local enterprise although local and socio-political forces from all levels of society do in some great measure determine the operative dynamics of the planning process.

The centralizing tendency in African countries of curriculum planning is more pronounced and assertive in initiating curriculum reforms, and in making directives and recommendations to local education authorities, schools and institutions. In essence, participation by local communities is indirect rather than direct in curriculum development process. What is needed in Africa is a move toward diversification of the power bases which influence curriculum decisions; and a decentralization of the authority for curriculum planning to reflect the growing concern of the citizenry with general state of their curricula; the emergence of the new education management systems; the changing perception of the role of education in development activities; and growing popular participation of the people in decision making in education.

For instance, public examinations exert a lot of influence on learners, parents, community, educators, employers, publishers etc. As a consequence, there is a tendency to increase curricula congruency with the priorities of examination systems. Yet parents, local communities and institutions have little say in examination matters. With a better, and well trained stock of teachers as well as a better educated community, there is need for local involvement in what should be taught in schools and how the expected outcomes of education can be assessed through examinations or continuous assessment.

(ii) Regional or State Level of Curriculum Development

Even in a highly centralized education system, any organization at any level with concern for education, gets involved in curriculum decision making one way or the other - say in the provision of facilities, the supply of instructional materials. However, a major problem to be cleared is that people should not get involved or participate in curriculum development without a corresponding specification of the appropriate roles of the participants.

More important is to take Taba's warning very seriously that not every one should be involved in curriculum simply for the sake of democratic participation. The reason being that: "being concerned is too broad a criterion for participation in curriculum development. Some delineation is needed regarding the nature of that participation. Much grief has come from an indiscriminate participation of everyone in everything. Clearly there is a distinct function that all these groups can serve in the total job of curriculum development, and the decisions on participation must rest on who can best do what and not on sentimental concept of democratic participation."<sup>34/</sup>

The issue therefore is that not everyone at the local, or regional level should be involved in curriculum development without proper delineation of the roles and functions to be played by

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<sup>34/</sup> Hilda Taba - Curriculum Development: Theory and Practice opt cited p. 252

various participants. Whether we are working through curriculum panels or committees, the roles and functions should be clearly spelt out of those involved in curriculum development. Problems of duplication, coordination and lack of focus do arise at regional levels where delineation of roles and functions are not clearly defined.

For instance, who hires or recruits teachers? whose responsibility is it for the organization and administration of examinations. Who provides financial and material resources for schools at the regional and local levels. The answers to those questions will also provide clues as to the involvement of various participants in curriculum development. Indeed, in a highly centralized education system, the regional or provincial level may be more concerned with the implementation of decisions rather than in the decision making process of curriculum development. It is in the light of this that we now move to examine the arena of curriculum development at national level.

### (iii) Curriculum Development at the National Level

In many African countries, particularly following independence, the legal responsibility for curriculum development is a function of the central government particularly as regards the determination of curriculum policy and plans. Through a centralized legal system, the central government establishes curriculum development institutes, centres or units; inspectorates, examination boards, standing committees, advisory committees, subject committees and panels etc.

It is to be emphasized that curriculum development does not take place in a vacuum because curriculum development process is a socio-political enterprise wherein conflicting interests compete for recognition, and that external, informal, and extralegal forces frequently penetrate the internal boundaries of legal decision making structures at all levels of curriculum development. This is so because curriculum decision making, in any social or cultural context, has very strong political and valuative elements since it involves power negotiations about the allocations of resources and benefits towards the advancement of certain ends. Indeed, the formal and legal structures regulating curriculum development are more directly determined and controlled by national governments and the influence of extra-legal, informal and externally organized groups are not as diversified or powerful as in developed countries. Even then, we need to consider and take into account all those forces and viewpoints, both formal, informal and external when making curriculum decisions.

### **D. Need for a Comprehensive Curriculum Design for Socio-economic Transformation**

Mention has already been made of the fact that curriculum development like curriculum planning is a decision making process because in the first place it entails taking decisions which depend on the existence of alternative courses of action; that it involves deciding in advance what to do, how to do it, when to do it, and who is to do it. It is an intellectual process

trying to make things happen and not leave them to chance. In other words, it is a conscious demonstration of the courses of action whose decisions are based on purpose, facts and considered judgement.

For countries to plan and develop their curricula effectively so that they can achieve socio-economic transformation, certain conditions ought to exist in a country viz:

- the existence of a legal basis for curriculum planning, curriculum development and evaluation i.e. that there should exist in a country an act of parliament, a decree, a law or an ordinance which makes it legal for a government ministry (such as the ministry of education), an institution, a board or an organization to plan, develop and evaluate the country's curriculum and the outputs of an education system. For without any such legal basis, anyone or any body or institution can put whatever it likes in the schools in the name of a curriculum. The products of such a curriculum will be claiming to have received some form of education in whatever measure.
- the existence of trained, qualified and adequate staff of curriculum planning, curriculum development and evaluation i.e. a cadre of well trained and qualified staff to carry out the functions of curriculum planning, development and evaluation and the assessment of expected outcomes of education; and
- technical sophistication, competencies and experiences in curriculum development and evaluation to take into account the country's culture, ethical principles, philosophy of life, social, economic and political aims and objectives.

Given the existence of the foregoing conditions, the next necessary step is to analyse the present situation (situational analysis) in order to determine what is so as to establish what should be upon having formulated the aims, goals and objectives of education in relation to national goals, aims and objectives i.e. social, economic cultural and political.

In essence therefore, we need to take certain actions to ensure that the curriculum being developed is responsive to national development needs. These actions involve :

- (i) the gathering of basic information about the context in which the changes should take place in education i.e. we need a detailed analysis of the present situation - social, cultural, educational, economic, political etc. so as to build a strong case for future action. For unless we know where we are, it will be difficult to know where we want to go and by what best route! The curriculum we want to develop must lead us to socio-economic transformation: for that is where we want to go!
- (ii) planning a strategy for change to ensure that resources are effectively utilized. To ensure that knowledge, skills and attitudes of our people are utilized for social

and economic development we need an action plan in the form of curriculum reforms to ensure the proper development of such knowledge, skills and attitudes and not leave it to chance. Unplanned curriculum reforms cannot lead us to where we want to go i.e. to our goal of social and economic transformation.

(iii) the process of curriculum development in practice should be followed and adhered to by:

- (1) Ensuring that curriculum planners and developers do study and are conversant with the national goals of education, policy statements and frameworks as well as directives so as to be able to realign curriculum aims and objectives with the adopted national goals;
- (2) Curriculum developers should be able to determine the goals and objectives, of a cycle of education such as those of the first or second cycle of education even where these are not clearly spelt out;
- (3) Determining a curriculum for the various levels of education; i.e. a determination should be made as regards the most appropriate subjects in a curriculum, designed to achieve the objectives of the educational system. In other words, what subjects will equip the outputs of the system with the right knowledge, skills and attitudes which can be effectively utilized in national development activities.
- (4) Selecting appropriate learning activities by focusing attention on the teaching-learning experiences which will be provided in order to achieve the intended learning outcomes of the educational system. In other words, we need to select those activities to be done by teacher and those by the learner which will lead to the achievement of learning outcomes.
- (5) Selecting appropriate content. This will involve the selection of individual subject topics and corresponding content so that the content selected should lead and contribute to the attainment of the objectives of the educational system.
- (6) Organizing and integrating learning experiences and content so as to facilitate the achievement of the objectives of education. Organization and integration of learning experiences and content usually involves:
  - (a) the preparation of a scope and sequence chart; and
  - (b) the development of a teaching syllabus.

The two are done to ensure that there is harmony in promoting the attainment of the intended learning outcomes.

- (7) Perhaps more important is the preparation of instructional materials which involves the writing of the following teaching-learning materials viz:
- (a) Pupils'/students' textbooks;
  - (b) Teachers' guides or teachers' books;
  - (c) Pupils'/students' work books;
  - (d) Teachers' handbooks;
  - (e) Supplementary books (for students and teachers);
  - (f) Reference books and materials;
  - (g) Other instructional materials;
  - (h) Instructional equipment to accompany certain textbooks or workbooks.

In preparing these instructional materials, the curriculum developer is expected to keep in mind that whatever he does must contribute to the attainment of the objectives of education in terms of the three levels of goals: the ultimate, mediate and proximate goals.<sup>35/</sup>

- (8) Evaluate the instructional materials to check if the prepared materials do in fact contribute to the attainment of the goals of education by equipping the outputs of the system with the right knowledge, skills and attitudes for engaging in productive activities.
- (iv) Implementing Curriculum in Schools which is often a gradual process involving a number of things:
- introduction of new programmes and materials, textbooks, equipment and apparatus;
  - introducing changes in school buildings, furniture, supplies and distribution of equipment and instructional materials;
  - introducing changes in organization at school and classroom level as well as those changes which affect staff employment and welfare, staff recruitment, school administration, teaching and conditions of service;

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<sup>35/</sup> N.O.H. Setidisho - Some Models of Curriculum Development: Procedures in Curriculum Planning and Curriculum Development, D.S.E. Bonn, 1989 pp. 17-19

- training and retraining teachers so that they can implement the new curriculum, as well as education administrators, inspectors of schools, headmasters, tutors and instructors so that they are conversant with the curriculum changes; what these changes are, and how they are to be implemented.
- providing resources (both material and financial) to teachers to enable them implement the curriculum.
- introducing in the examinations and means of assessment to reflect the requirements and needs of the new curriculum; and
- ensuring that parents, the community, learners and teachers have been given full explanations regarding curriculum changes and that all these parties are fully involved in the implementation of the curriculum.

If progress is to be made in curriculum development and implementation, it will require the active participation of all those concerned, the effective co-ordination of programme implementation, and the active co-operation of teachers, learners, administrators, inspectors, examination officers and parents. Implementation must however be followed by evaluation to see if the objectives and goals set were fulfilled.

- (v) Curriculum Evaluation which should not be solely equated with measurement of students' performance, but should go beyond the professional judgment of assessing the expected outcomes of education. This should be so because evaluation involves decision making about an education programmes i.e. whether to or not to continue. In other words, evaluation should help to furnish us with information which will facilitate making decisions as to whether to continue, to adjust and modify or discard an on-going programme in the education system; as well as provided a justification for a political, social, economic and educational action relating to educational programmes, particularly to curriculum.

Experience has shown that in Africa, many evaluation or assessment reports are not used for decision making purposes. They are often destined for the decoration of bookshelves and filling up office drawers and cabinets. Little progress can be made in curriculum development and in improving the quality of education if data and information produced by evaluation research cannot be effectively utilized for decision making about our curriculum and education programmes in general.

- (vi) Curriculum Development as a Follow-up and Feedback Process which calls for continuous review and follow-up of activities with constant feedback to allow for modification and changes where these are needed. Follow-up action ensures that modifications of instructional materials, equipment, textbooks, and educational

technology are undertaken; as well as the continuous training and retraining of education personnel: teachers, administrators, inspectors of schools, examination officers, curriculum developers etc.

Curriculum development and implementation without follow-up and continuous feedback are meaningless because of the likelihood of repeated mistakes and actions which may be detrimental to the high quality of education.

#### **E. Selecting a Relevant Curriculum Design**

Essentially, curriculum design is a master plan for curriculum implementation containing the key elements of the curriculum viz: goals, aims and objectives; the content; the experiences, learning environment, instructional strategies and the methods of evaluation. Therefore a proper conception of a curriculum design enables a curriculum developer to conceptualize the overall curriculum and to discern the inter-relationships among curriculum elements. At the same time, it assists the curriculum developer to identify the subject matter to be used, the classroom procedures to be employed and the appraisal methods to be utilized. Issues of scope, breadth, depth and sequence of content can be dealt with more effectively if one is clear about the basic design questions:

- What shall we teach in schools? and
- How shall we teach what we have selected?
- What to teach in schools is influenced by three sets of factors viz: what is educationally worthwhile; what is regarded as relevant; and what is teachable; all of which must be considered within the context of culture. Even when we have decided about what to teach in schools i.e. subject-wise, certain design principles should be followed viz:
  - Consistency - a curriculum design must be internally consistent in terms of content, organization and application;
  - Comprehensiveness in terms of substantive elements, objectives, content, pedagogical methods, organization and operation at the various levels of the education system or else deficiencies will manifest in the products of the education system.
  - Scope and sequence of the proposed curriculum in terms of coverage (i.e. breadth) and depth i.e. the order in which things should follow each other.
  - Continuity in terms of progression from one grade to another and from one level or cycle to another i.e. the content should show continuity between grades and from one level to another of the education system.

- **Transferability** of material and learning i.e. how school learning can be carried over into day-to-day living. In this regard, school learning should provide for an opportunity to apply what has been learned at school in everyday life situation. Unfortunately much of what is learned at school is very much removed from everyday practical situations and hence the charge against education for nurturing an irrelevant curriculum that does little to equip individuals with the right knowledge, skills and attitudes for engaging in productive activities.
- **Viability** in terms of the implementability of the curriculum given the available resources - human, financial and material and whether modifications can be made to the curriculum without serious disruptions to educational activities.
- **Articulation** i.e the relationship of content among different subjects and within same subjects at different levels of the education system e.g. at the first and second levels.

A lot has been written about the many designs used in curriculum development which can broadly be classified into three categories viz:

- the **subject-centred designs** which include the subject design; the disciplines design; and the broad fields design;
- the **learner-centred designs** which include the activity/experience design; the open classroom design; and the humanistic design; and
- the **problem-centred designs** which include the area of living design; the personal/social concerns of youth design; and the core curricula design.

To select and develop the right and appropriate curricula for recovery and socio-economic transformation, we should be conversant with the strengths and weaknesses of each of these categories of curriculum designs. We will devote the next pages to a discussion of the strengths and weaknesses of some examples of these categories of designs.

### (1) **The Subject Centred Curriculum**

According to the subject-centred design, curriculum may be organized into a number of subjects each of which represents a homogeneous body of content i.e. each subject consists of a single and distinctive kind of content. Typically, the subject centred curriculum leans heavily on verbal activities because knowledge and ideas of the subjects are best stored and communicated in verbal forms with emphasis on such procedures as the lecture, discussion, exposition, explanation recitation, questioning, written exercises, oral reports, term papers.

Although in practice some variation of the subject-centred curriculum attempt to provide activities which allow for the development of such skills as critical thinking and valuing, the basic structure of this type of curriculum is to encourage the kind of content which emphasizes memorization and acquisition of information. In spite of this weakness, it is the most systematic and effective organization for acquainting the youth with the essentials of cultural heritage, because by studying the organized bodies of the subject matter, students can build their store of knowledge most efficiently and economically.

Other advantages of the subject is that teachers are trained and oriented towards the subject design and that most school textbooks are generally organized by subjects and that teaching according to subjects is much easier. Parents and the community often feel that teaching according to subjects is academically sound.

Yet with advancement of knowledge and technology, the subject-centred curriculum tends to fragment knowledge and therefore the understanding by students. Concepts and facts are learned in isolation of the subject as pure compartments with little opportunity to relate them to anything that might give them perspective and meaning. Their meaning and utility are often confined to the preparation and passing of tests and examinations.

Due to lack of integration inherent in the subject-centred curriculum, we would like to caution that

"it is unlikely that the fullest development of the intellectual aspects of personality can be attained -- if the average pupil ceases to grow intellectually and if he remains politically immature, knowing and caring little about social strategy - such stagnation and apathy are probably due in part to the specialized and restrictive character of the subject-centred curriculum."<sup>36/</sup>

Indeed the subject centred curriculum is detached from the concerns and events of the real world, such crucial considerations as conservation of resources, political strives etc. are no respecters of subject matter boundaries. In essence, it gives inadequate consideration to the needs, interests, and experiences of the learners because only students whose experiences and interests mix with the subjects as presented tend to benefit meaningfully from such a curriculum.

Therefore, the teaching of separate subjects, such as English, French, mathematics, physics, chemistry, geography, history, literature, arts should not be encouraged as this tends to limit the scope of educational goals and encourages a passive concept of learning. For Africa to move towards socio-economic transformation, the curriculum should not be too heavily ordered on predigested content of compartmentalized subjects which will not lead to the full

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<sup>36/</sup> O.B. Smith, O.W. Stanley and H.J. Shores - Fundamentals of Curriculum Development, Revised Ed., Harcourt Brace Javanovich, New York, 1957 p. 78

development of the powers of the intellect or of feeling. At best such a curriculum produces masters of information which is often of little value and use for national development activities.

## **(2) Learner-Centred Curriculum**

An argument in favour of the learner-centred curriculum over the subject-centred is that people learn only what they experience. This is so because learning which is related to active purposes and rooted in experience translates itself into behavioural changes. Students learn best those things which are attached to solving actual problems and which help them in meeting real needs. In actual fact therefore learning in its true sense is an active translation of one's experiences.

A learner-centred curriculum ensures that learners' needs and interests are taken care of although it is not often easy to distinguish the real needs and interests from learners' dreams and wishes. At the same time, a learner-centred curriculum ensures that there is co-operative planning between teachers and students in terms of goals to be pursued, the resources to be used, the activities to be carried out, and the assessment procedures to be used.

More important, a learner-centred curriculum focuses on problem-solving procedures for learning because in pursuing their needs and interests students encounter certain problems for which a solution has to be found. In looking for a solution, students achieve the learnings which represent the values of this type of curriculum i.e. realness and reality, significance, immediacy, vitality, and the relevance of activity and experience.

Since a learner-centred curriculum is based on the need and interests of learners, motivation is intrinsic and does not need to be extremely induced. Facts, concepts, skills and processes are learned because they are important to the students for their needs and not because they are needed for tests or examinations. The curriculum therefore actually provides the learners with the process skills they need to cope effectively with life outside the school i.e. a world of real life.

Yet for Africa, a curriculum based on the learners' felt needs and interests cannot possibly provide an adequate preparation for life in a world which is changing too fast. This is so because many issues and understandings which society and the nation view as vital and important for the effective functioning in the modern and technological world are bound to be omitted if students are given full freedom to pursue only their felt needs and interests. In any case, a learner-centred curriculum lacks continuity i.e. sequence which is very essential for students maturation, experiential background, prerequisite learnings, utility and difficulty. Indeed it is to be emphasized that where students' needs and interests shift erratically over time in response to diverse genetic and environmental as well as social, economic and political factors, continuity in learning would be difficult to maintain and as such the aims and objectives of education may not be attained.

Perhaps a more important point to be observed is that a learner-centred curriculum demands an extraordinarily competent and well trained teacher. At the primary level in Africa where a good percentage of the teachers are under-trained or untrained it would be extremely difficult to effectively implement a learner-centred curriculum. In addition, there are the practical problems of such a curriculum. First, textbooks, teachers guides and instructional materials as well as equipment are prepared on the basis of separate subject areas. All these are not prepared to the requirements of this type of curriculum. Above all, few (if any) African education systems would have the resources (human, financial and material) to develop this kind of curriculum without contradicting the entire academic structure of the system. The argument is that there would be very few students brought under this type of curriculum who would easily adjust to the subject specialization at the tertiary level of education system. It is for this reason that we now examine the third option which offers more hope for the kind of curriculum Africa should be developing i.e. the problem-centred curriculum.

### **(3) Problem-Centred Curriculum**

A problem-centred curriculum gives greater promise because it embodies the idea of a core-concept of the curriculum by avoiding the fragmentation and piecemeal learning accumulated from separate subjects teaching or from the learner-centred curriculum. Within the problem-centred curriculum we think that we can achieve oneness of the total curriculum through a unifying core of studies while subordinating others as optional or electives.

A problem-centred core curriculum ensures that subjects taught in schools provide common learnings, or general education for all students. The problem-centred core curriculum constitutes the segment of the curriculum which teaches the common concepts, facts, skills and attitudes needed by all individuals for effective functioning in society.

What Africa needs for its socio-economic transformation is to develop, according to the needs of each country, a core curriculum which can be any one of the six commonly known core curricula viz:

**(i) The separate subjects core curriculum** which consists of a series of required individual subjects separately taught by subject matter specialists. In this, core subjects considered vital and important for the acquisition of knowledge, skills and attitudes are selected and given priority in teaching as compulsory subjects. Every student must study such core subjects and must pass at the end of the programme or else no certificate is made for having completed the programme or level of education.

Policy makers or established organs pronounce what subjects constitute the core curriculum i.e. the common elements or general education of the curriculum. Such core subjects or constants often include depending on the country:

- An international language such as English, French, Arabic, Spanish or Portuguese
- A national language where one of the above languages is not
- Mathematics and a science such as physics or chemistry
- A practical subject such as agriculture, or art
- A social science such as religious education, political science or government and civics.

Beyond this, there are those supplementary subjects which may be taken by certain students and then the electives which are restricted only to certain classes of students e.g. additional mathematics and calculus.

**(ii) The Correlated Subjects Core Curriculum**

To make the separate subjects core more meaningful, attempts should be made to provide common learnings in a coherent form by showing the relationships among two or more subjects selected as core subject. In this case, subjects such as mathematics and science can be correlated to form a correlated core curriculum. Correlated core allows for integrated teaching and for a more meaningful teaching relationship and for a linkage relationship among subjects.

**(iii) The Fused Core Curriculum** which is based on the total integration of fusing of two or more separate subjects e.g. history, geography, economics, civics etc. may be combined and taught as social studies: or biology, physics and chemistry may be combined and taught as general science.

**(iv) The Activities/Experience Core Curriculum** This is much more than the learner-centred curriculum in that certain activities in a given subject are considered as constituting the core learning activities which every student must do in order to proceed with the programme. Both the teacher and the learners must be very clear and should understand those activities and experiences in the curriculum which form the foundation of all learning.

**(v) The Areas-of-Living Core Curriculum** which is a preplanned, required programme of general education based on problems arising out of the common activities of the human being in society. This type of curriculum is problem-centred rather than learner- or subject-centred. A part from utilizing an integrated approach to learning this type of curriculum attempts to relate the learners' problems to those of the real world and the community and how they can transfer their learning to the real world around them.

Besides, this type of curriculum tries to integrate and unify content, as well as encourage problem solving procedures in learning; and present the subject matter in a relevant and functional form so as to foster intrinsic motivation in students.

(vi) **The Social Problem Core Curriculum** which derives from the crucial issue that beset Africa at every level of contemporary social life viz: poverty, hunger, disease, racism and tribalism, the status of women, illiteracy, political strives, desertification, democracy etc. These issues are very much alive in Africa, and should perhaps constitute the core of our curricula.

However, there are those of us who would argue that the areas-of-living core curriculum has sway over the social problem core curriculum in as far as the former is based upon universal human activities such as maintaining health, earning a living, and conserving natural resources in Africa. Even then, many of us in Africa would feel that the social problems core curriculum represents the ideal curriculum for general education in a continent full of problems - from the democratization process, famine, disease, illiteracy, drought, wars, political strives, natural disasters to fights for sheer survival.

Perhaps the social problem core curriculum with a mixture of the separate subjects core could provide a basis for the type of curriculum Africa should be developing for its recovery and socio-economic transformation. This should be so because traditional approaches to curriculum development have not produced the right knowledge, skills and attitudes needed by various African nations.

#### **F. Selected Curriculum for Socio-Economic Development**

In an earlier section, an analysis was made of the major areas of manpower requirements for:

- the development of Africa's agricultural potential;
- industrialization and industrial development;
- the development of Africa's agricultural potential;
- industrialization and industrial development;
- the development and utilization of natural resources and the environment;
- developing transport, communications and energy infrastructures;

- administration and enterprise management and public services;
- entrepreneurial and indigenization of scientific and technological development;
- trade development and promotion;
- the education sector as a producer of trained and specialized manpower to meet its own requirements; and
- education for the establishment of security, stability, peace, participation and development.

This is a very wide field whose priorities and emphasis would have to shift with the passage of time and that the type of curriculum developed to accommodate all these fields will need to be constantly reviewed and revised as needs and priorities shift. Therefore, the proposals being made here can only be examined in the realities and context of each country. Details of the type of curriculum which may be pursued have been given in two of the documents submitted for this meeting. What appears hereunder is a resume an amalgam or both of the proposals made in these two documents.<sup>37/</sup>

At the beginning of this section, nine major areas were identified for emphasis in education and training so as to produce the required manpower. In proposing a curriculum for socio-economic recovery and transformation, we will regroup these areas into six core fields of a curriculum taking due account of the African culture, context and realities viz:

- Mathematics and Science
- Physical and Biological Sciences
- Humanities and Social Sciences
- Expressive and Creative Arts
- Moral and Development Education
- Inter-disciplinary subjects

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<sup>37/</sup> ECA (a) Assessment of Confidence Building Factors in School Curricula [ECA/PHSD/93/1/3(i)]; (b) A Review and Analysis of Past Attempts Towards Curricula Reform for Socio-Economic Development in Africa [ECA/PHSD/93/2/3(ii)]; (c) Curriculum Development for Promoting Self-Confidence in Africa [ECA/PHSD/93/3/3(iii)]; and Attitude Formation and Curriculum Development [ECA/PHSD/93/4/3(iv)]

This grouping is for convenience and should not be considered as binding, and because of the nature and process of curriculum. there are those subjects which can be placed in more than group. The grouping may not hold for most of us.

### 1. **Mathematics and Science Core Field**

Subjects to be included under this title will include both pure and applied mathematics and sciences, traditional and modern mathematics; chemistry; computer and technological sciences; medicine, both traditional and modern; engineering of all types; and other scientific studies.

The study of these subjects would be to prepare manpower needed for industrialization and industrial development, industrial processes and products; for the teaching of mathematics and scientific subjects at all levels of the education system; for entrepreneurial and indigenization of scientific and technological development; as well as for exploration and exploitation of natural resources.

Selection of subjects within this category could be made from the following at each level of the education system:

(i) **First Level:** Mathematics (traditional and modern); basic science, and numbers.

(ii) **Second Level:**

Maths	Physics	Chemistry
Commercial mathematics	Computer & technological science	Accounting
Banking and Finance		

(iii) **Third Level:**

Pure & Applied Mathematics	Chemistry	Physics
Medicine	Engineering	Surveying

Architecture

Accountancy

Finance &  
Banking

Computer  
Science

Technological  
science

(iv) **Adult/Literacy Programmes:**

Numeracy &  
reading skills

Business  
computation

Elementary  
Mathematics

Accounting

**2. Physical and Biological Science Core Field**

The study of subjects under this category is to take care of manpower intended, for the development of Africa's agricultural potential; the exploration and exploitation of Africa's natural resources as well as the preservation and utilization of the environment; for industrial development; trade development and promotion; for the development of education itself; and for entrepreneurial and indigenization of scientific and technical development.

Subjects to be taught under this core group will include at each level some of the following subject.

(i) **First Level:** This will include:

Elementary  
science &  
biology

Agricultural  
science

Biology  
plants &  
animals

Environmental  
science

Integrated  
science

Hygiene

Gardening

Farming

Traditional  
medicine

(ii) **Second Level:**

Biology

Physics,

Chemistry

Agricultural science	Botany	Agricultural economics
Forest technology	Leatherwork	Blacksmithing
Poultry	Veterinary science	Traditional medicine
Textiles	Surveying	Metallurgy
Hydrology	Geology and mineralogy	Para-medical science

(iii) **Third Level:** Subjects at this level should focus on:

Engineering	Surveying	Zoology
Hydrology	Geology	Architecture
Mining	Veterinary science	Botany
Biology	Physics	Chemical Engineering
Agricultural science	Food technology	Food Processing & Preservation
Climatology	Forestry	Metallurgy
Archaeology & anthropology	Pharmacology	Modern and traditional medicine

### 3. **Humanities and Social Sciences Core Field**

There are many subjects which can be included under this core field of study from the first through the third levels.

(i) **First Level:**

Social studies	History	Geography
Civics	Cultural studies	Home economics
Indigenous political	Government machinery	Domestic science
Home economics	Nature study	

(ii) **Second Level:** Subjects at this level will include:

History	Geography	Civics
Home economics	Economics	Sociology
Psychology	Anthropology	Commerce
Commercial Studies	Business & accounting	Government & the constitution
Administration & management	Elementary law	Human rights political system

(iii) **Third Level:** Subjects in this group will include:

Law	History	Geography
Political science	Politics	Sociology
Psychology	Anthropology	Archaeology
Public administration	Development Administration & management	
Finance	Trade	International Co-operation

Business management	Home Economics	Government
Government	Human Rights	Accountancy
Philosophy	Commerce	Transport and Communications
Entrepreneurship	Financial management	Small-scale industries
Indigenous economics;	Development economics & development planning	Country and economic planning
Educational administration	Research studies	Curriculum development & evaluation
Social and physical environment	Cultural properties	

#### 4. Expressive, Creative and Practical Arts and Crafts

This group covers all expressive creative and practical arts and crafts as well as technical subjects. Comprising of fine arts, dramatic arts, creative arts, sculpture, music, literature, drawing, painting, graphics, language, technical subjects etc.

##### (i) First Level:

Oral literature	Local language	Modern Prose
Poetry	Drama	Dance
Music	Drawing	Painting
Woodwork	Carpentry	Mechanics
Blacksmithing	Tie and dye	Basketry

Weaving	Commercial studies	International language (English French, Arabic, Portuguese or Spanish)
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(ii) **Second Level:** Subjects will include:

National (local) language	International languages(s) of English, French Arabic, Portuguese or Spanish	Modern Literature
Oral Literature Dance	Drama Graphics	Music Painting
Drawing	Tie and dye	Real & personal property
Management of cultural property	Woodwork	Carpentry
Mechanics	Commercial studies	Technology
Weaving	tanning; etc	

(iii) **Third Level:** Subjects at the third level will very

much follow those undertaken at the second level although at deeper level of study. In essence expressive areas will include:

- Language: English, French, Arabic, Spanish

or Portuguese

- Literature: Oral, written and creative
- Music and drama, poetry, prose

The creative arts will include:

Fine arts - drawing and painting;	Graphic	Tie and dye
Crafts	Weaving	Sewing & Knitting

The technical subjects will include:

Wood carving	Carpentry	Mechanics masonry Blacksmithing; etc
Weaving	Tanning	

## 5. Moral and Development Education

This is a much more difficult field to decipher the subject which should be included in this core category. Yet for countries to develop there must be peace, stability and security. To achieve this, we need to teach moral and development education; the subjects of which should be:

(i) First Level:

African traditions norms & values	Cultural values	Moral/religious education
Ethics	African philosophy	Civics
Social welfare Food and Nutrition	Personal &	Human rights public property
Customs	Beliefs and values	

Physical  
Education

Health and  
Hygiene

(ii) **Second Level:** These will include:

Physical  
education

Sports &  
gymnastics as  
well as  
aerobics

A f r i c a n  
traditions

Culture, norms  
and values

Ethics

Moral and  
religious  
education

Social  
welfare

Co-operation

Human rights

Responsibility  
and  
accountability

Lineage &  
extended  
family  
system

Health and  
Hygiene

Cultural  
property

Logic

(iii) **Third Level:** Subjects at this level would include:

Ethics &  
accountability

Responsibility

Public Welfare

Philosophy

Physical  
education

Political and  
moral theory & thought

Logic

Cultural values

Language and  
communication

Human rights

Governance

Traditional &  
modern science

Property management	Development information	Popular participation
Managing people	Public and personal obligations	Rule of Law
Beliefs and Attitudes		

6. Inter-disciplinary Core Subjects

In practice, the real world defies teaching restricted to single disciplines or subjects. That is why efforts and attempts are often made to establish multi-disciplinary or inter-disciplinary courses as a better means of providing education to learners.

Inter-disciplinary courses have attempted to cover topics from anthropology, sociology, psychology, political science, history, geography, civics, economics, health education, physical education, science, environmental education, agricultural science etc. Such an inter-disciplinary approach to teaching would focus on problems of living in a community or society; problems of economic development and relations; cultural values; ecology; the environment; technological changes and problems, traditions; values etc. Briefly then:

(i) First Level

- Social studies: History, Geography, Civics, Government or Political Education
- Development Education: Hygiene, Health Education, Physical Games, awareness and communication      Science, Health Education, Sports, Public Health, Public information
- Environmental Studies: general science, botany,      agricultural science, biology
- Integrated Science: biology, botany, zoology, agricultural      general science and science, maths
- Home Economics: Needlecraft, sewing, knitting,      cookery, nutrition, home management

- Practical Subjects: arts and crafts - drawing, painting, woodwork and metalworks; etc. music and drama
  - Expressive Arts: Languages (local and international literature; poetry; music) drama; dance; and
- (ii) **Second Level**: All those subjects listed for the first level to which should be added.
- Social Sciences: Sociology, psychology, anthropology, economics, political science, and archaeology
- (iii) **Third Level**: All those subjects at the second level treated at a higher level plus logic, philosophy, and development economics

What has been given in the foregoing section, is a whole array of subjects from which a curriculum design may be selected based on the needs of a country. Change is happening too fast and too quickly in Africa and conservative education is not responding that fast to prepare the products of the system. Neither time nor resources do we have to enable us teach everything good for the continent. Therefore a judicious selection has to be made to ensure that what we teach in our institutions will make the products of the education systems learn to cope with changes as they come i.e. that curriculum which instils confidence in the products of the system in the face of multifarious changes and problems.

## VI. Conclusion

For all what has been said in the foregoing pages, we would like to caution that no curriculum design, no matter how well planned it is, can be adequate for the total curriculum plan of a school system serving a varied population with the multiple goals, aims and objectives schools generally serve. In spite of this, curriculum developers have a lot to do in selecting the appropriate design which will foster the acquisition of the right knowledge, skills and attitudes. Inevitably, curriculum designing is the area of decision making which must be shared by those immediately responsible for curriculum planning and curriculum development, for without this shared responsibility, the curriculum we may be developing may not be responsive and relevant to our national needs.

What is more important is for curriculum developers as well as planners to be more knowledgeable about curriculum designs and the designing process. This should be so because without an understanding of the present and past efforts in curriculum development, curriculum developers and planners will continue to repeat the mistakes of the past which have failed to

reorient education to national needs. Curriculum developers should be aware of the fact that many so-called curriculum reforms and innovations are simply renovations of wall-papering over cracks which soon begin to show damages to the papered walls.

In spite of this, we can say that there has been a general growth of confidence in defining and developing curriculum to meet national development needs. Most African countries are seriously preoccupied with developing the kind of curriculum suitable for different abilities and different contexts i.e. the type of curriculum which prepares individuals and the nation at large for the democratization process, for self-employment, self fulfilment and for contending with various problems, situations etc. in society and in the world - technological, political and socio-economic changes and persistent problems of drought, famine, hunger, disease, poverty etc.

Furthermore, curriculum planners and developers need to apply greater effort in determining and ascertaining the realities of the contexts in which curriculum implementation takes places. This calls for an increase in research activities and research mindedness at all levels of the education system; and a new pragmatism to limit programmes and activities in schools to what is possible in educational context with the learners and teachers. We should not expect too much from reformed curricula simply because we have introduced reforms when the teachers who implement the curriculum are not given the right training, the necessary equipment, instructional materials, textbooks and teachers guides.

Accusations that the African curricula are failing to equip learners with the right knowledge, skills and attitudes and are not responsive to national development needs may be born out of unrealistic expectations for ordinary human material. To put it crudely, gold cannot be produced from an alloy. If teachers, curriculum developers, administrators, education officers, inspectors of schools etc. are not properly trained and provided with the necessary facilities; and teachers already in-service not given in-service training, it is unrealistic to expect wonders out of such human beings. A tiger begets a tiger! and so it should be that only high quality education personnel can produce high quality outputs from the education system. Therefore, the way forward in curriculum development for socio-economic recovery and transformation should first and foremost to train high quality curriculum planners, developers and evaluators who can then produce the kind of curriculum our countries need. This should be followed by the training and retraining of school teachers as well as the training of teacher trainers. This would also facilitate curriculum development and implementation to ensure the production of high quality outputs because the inputs which were put into education were adequate and of high quality i.e. human, financial and material inputs.