Major Programme I
Reflection on
World Problems and
Future-Oriented Studies

Studies and Documents

ENGLISH-SPEAKING WEST AFRICAN STATES:
Development strategies in the Fields
of Education, Science, Culture
and Communication

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND AND OBJECTIVES OF STUDY

The continued persistence of world problems such as; widespread abject poverty; inequalities and asymmetries in the global economic system; increasing technological dependence by developing nations of the world; vast illiteracy; continued violation of human rights in some parts of the world; failure by some countries to use their culture adequately for development purposes and the threat of the natural environment has led the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) to outline five major tasks in their bid to contribute towards the solution of these problems. These tasks as stated in their second medium term plan (1984-1989) (1) are:

1. to contribute to the study of world problems in order to create greater awareness of the common destiny that unites people all over the world.
2. to assist in ensuring greater participation by individuals in their societies and in the world community.
3. to assist in strengthening the problem-solving capability by fostering the development and democratization of education and the advancement of science.
4. to help to facilitate the changes and cooperation in the development process in general, especially in science and technology and the management of the environment.
5. to arouse and encourage a renewal of values within a context of better understanding among various people of the world.

13 major programmes with defined aims and objectives were then adopted by UNESCO as their strategy for carrying out these tasks. This study falls within the first of these programmes which is known as major programme 1 and, titled "Reflection on World Problems and Future-Oriented".

The main objective of the major programme 1 is to inspire UNESCOs information and awareness so as to support by means of constant input of ideas to the implementation of the 13 programmes and the drawing up of future programmes. The studies that will be involved in major programme 1
will aim at gathering or provoking points of view, interpretations and ideas that have so far not yet been dealt with. The specific objectives of this programme are

to carry out a continuing appraisal of world problems and their likely development and to make its results known, stressing those aspects that are particularly relevant to the activities of UNESCO.

to prepare an international future-oriented study which should be circulated widely and serve as background material for the medium term plan for the period 1990-1995.

Within these broad guidelines, various regional studies were commissioned. The African sub-regional study was divided into several sub-studies and this one is restricted only to the Anglophone West African sub-region. The general objective of the study is to carry out an analysis of the development strategies in the sub-region of west Africa (Anglophone), focusing in particular on the following themes:

an analysis of the plans, strategies and development policies of the states of the region since 1975 particularly in the fields of education, science, culture and communication;

the prospects of evolution in this sub-region between now and the year 2000, particularly regarding inter-state cooperation in UNESCO's field of competence.

1.2 SCOPE AND OUTLINE OF REPORT

This study is limited only to the anglophone countries in the sub-region which are five in number, namely: The Gambia, Ghana, Liberia, Nigeria and Sierra Leone. These countries on the whole form a small fraction of the total number of states in the sub-region.

The structure of study is divided into six more chapters after the introductory chapter and the contents of these chapters are as follows:

The second chapter gives their general socio-economic environment which, includes the geo-political, the socio-cultural and the economic features. Their development strategies and problems of development were also discussed.

The third chapter is confined to the education sub-sector. This discussion includes the role of education in the overall development strategy, then the various educational systems were described before
looking at their policies and strategies. The management and financing of this sector was then discussed along with problems in the sector.

The fourth chapter looks at the science and technology sub-sector. It starts by looking at the place of science and technology in the development strategy and then the policy making bodies for this sub-sector. The policies and strategies, human resources and the funding mechanisms were discussed.

The fifth chapter looks at communications and culture. It starts by looking at the development strategies of these sectors and then discussed the existing systems in these countries before looking at the policies and strategies of these sectors.

The sixth chapter concentrates on the future trends of the respective disciplines and the prospects of evolution for inter-state co-operation in the sub-region up to the year 2000.

Attempts were made to present comparative analysis of the different countries studied while outlining the striking differences between them.

1.3 SOURCES OF DATA

In general, published information on west Africa is very sparse in content and unevenly distributed among the countries, this situation makes it difficult to carry out such a study especially when it is interdisciplinary in nature. Due to the travel restriction of the study, methods employed were limited to library search and personal communications. Sources of information used in the study are listed in the bibliography in the appendix.

During the library search, the greatest problem was to locate copies of all the national development plans of the countries covering the period under review, however there some were available to carry out the study. Reports from international agencies and local institutions assisted significantly in the study. Personal communications with researchers of different disciplines proved useful in supplementing the data obtained from the library search.

The author apologises for any uneveness noticed in the treatment of the countries, it is mainly due to the quality and quantity of the data available.
2.1 GEO-POLITICAL FEATURES

Anglophone west African states form the minority of the states in the sub-region. Only 5 of the 16 states in the sub-region fall into this category. It is therefore not surprising that all the states under review are surrounded by French-speaking states. This situation creates serious linguistic problems for the nationals of the respective countries, a problem more pronounced in the English-speaking countries which until recently put very little emphasis on the teaching of French. Though there are significant variation in the characteristics among these countries, but there are also some common features that are mentioned below which are:

Except Liberia, all the countries that are studied had the same colonial authorities (England).

With the exception of Liberia, all these countries became independent about 25 years ago. Liberia got its independence in the mid 1800s. They all now have republican status.

All the countries have at least one French country and the Atlantic Ocean at its boundary.

None of these countries are land-locked; they all have their capital along the coast.

All these countries fall under the tropical belt with two distinct seasons, the rainy and the dry seasons. There are slight variations with Gambia having less rainfall and Liberia and Ghana having more.

With the exception of the Gambia and Sierra Leone, the rest are ruled by military leaders. Sierra Leone had military rule between 1967 and 1969 and the Gambia had an unsuccessful military coup in 1980.

The diverse nature of these countries necessitates comments on each of them. This feature can be seen from the data in table 2.1 that is at the appendix.
Gambia is one of the smallest country of the African continent and is almost surrounded by the republic of Senegal, but for a small area where the river Gambia empties into the Atlantic Ocean. The country extend 300 km along river Gambia and is less than 50 km wide on each side of the river. The Gambia as most African countries is suffering from high population growth rates. As shown in table 2.2, the country is expected to double its population in the 30 years and quadruple it before the end of the 21st century. Another feature that the Gambia has with other African countries is the rural population, 80% of the total. Yet still people migrate to the urban areas which makes such areas very populated. The Gambia has enjoyed a relatively calm political life since independence except for political upheaval in 1980. The country cannot boast of natural wealth and only have the land and the sea, but unfortunately the country has been suffering from drought in the recent past. The Atlantic Ocean and the river Gambia form good areas for exploitation for fishing.

Ghana lies between latitudes 4 44 N and 11 11 N and longitudes 3 15 W and 1 12 E and is bordered by Togo in the east, Burkina Fasso in the north and Ivory Coast in the west (all francophone countries). Atlantic Ocean forms the southern border. The country's drainage is dominated by the Volta system that includes the Volta lake, one of the largest man-made lakes in the world. The land falls into two ecological zones; a closed forest zone comprising of forest reserve (19%), unreserved forest (11%) and open farm and fallow lands (70%), a savanna zone comprising forest reserves (4.4%), unreserved woodlands (68%) and open farmlands (28%). Since 1957 to 1966 Ghana was ruled by civilian government, but after this period it has had military leader except for two brief periods in the 1970s. The present military government that came into power in 1981, has been inclined to policies that enhanced grassroots development. Table 2.2 shows the trend the population is expected to double by the end of the century and five times by the end of the 21st century.

Sierra Leone lies between latitudes 6 55 and 10 N and longitudes 10 16 and 13 18 W. The country is bordered by Liberia on the east, Guinea (francophone) on the north and west and Atlantic Ocean on the south and south west. The topography of the country is divided into four regions, namely; interior plateau and hills, interior plains, Freetown peninsular and coastal swamps. Though the country has many rivers that flows into the Atlantic Ocean but their navigability are very limited but they can provide a good source for hydro-electricity development. The population growth is more gradual than in the previous countries discussed. The population is expected to double in about four decades from now and quadrupled by the end of the 21st century. At present most of its habitants live in the rural areas (75%), but the urban
areas are suffering from overcrowding due to migration from rural areas. Sierra Leone has enjoyed long periods of political stability since independence. There was a period of military intervention between 1967-69, but all other periods there were civilian governments.

Liberia is bordered by Sierra Leone on the northwest, Guinea on the north and Ivory Coast on the east (both francophones). Atlantic Ocean forms the southern borders. The country rises from a flat coastal plain along the Atlantic Ocean to a valley and hills which end up gradually as a high plateau with heights of 250m above sea level. The country has 6 main rivers that flow into the Atlantic Ocean, but their navigability is doubtful. The coastal areas consist mostly of mangrove swamps and the interior tropical rain forests. The population growth rate is higher than the other countries already discussed as can be seen from table 2.2. The present population is expected to double by the end of the century and more than five times by the end of the 21st century with current growth rates. Liberia got its independence in 1847, first in Africa. From that period until 1980, the country was ruled by a civilian government that based its constitution and activities to that of the USA. Just over a year ago the country had elections and a civilian government was formed but the military leader still returned as leader.

Nigeria lies between latitudes 4 and 13 5 N and longitudes 3 and 15 E. The country is bordered by the Republic of Benin on the west, Niger and Chad on the north and Cameroon on the east (all francophone). Atlantic Ocean forms the southern border. About 70% of the land is arable and receives water from rivers Niger and Benue. The country is deeply endowed with natural resources including petroleum, gas, tin, coal, gold etc. Population growth is a very serious problem in Nigeria because the country is yet to provide reliable data and according to table 2.2 the growth is very high, doubling by the turn of the century and almost quadrupled by the first quarter of the next century. Noting that population is already high this situation can create serious problems for development. It is therefore necessary that all attempts are made to have accurate data for the country. The country has been under military rule for most of the time since independence, they only had two brief periods of civilian rule between 1960 to 1966 and 1979 to 1983.

2.2 SOCIO-CULTURAL FEATURES

The countries which are studied in this report are in different stages of their socio-cultural development. Though historical background can account for some of the differences but mainly it has been due to policies and attitudes shown by the respective governments. These differences will be outlined.
later, but there also common features that should be mentioned and are given below:

All these states are multi-ethnic and multi-lingual with each having distinct rich and diverse cultures. The ethnic groups have more in common with other groups in neighbouring countries than with groups in the country.

All these states have a group that lives mostly in the capital that is dominated by the freed slaves from Europe and USA, with the exception of Ghana and Nigeria.

Three main religions dominates these countries, muslims the largest for most, christians and indigenous African religions. The latter has been reducing in influence the states activities due to colonialization by the Europeans and the Arabs.

English is used throughout in these countries as the official language but local languages are used extensively for most local transactions. Efforts are now being made to introduce local languages in the education system, Nigeria and Ghana has progressed in this area.

Life expectancy in these countries are very low, it is less than 50 years for all of them except Ghana that is just over 50 years. This condition is due to the poor health facilities in these countries. At present 50% or less do have access to safe drinking water. However desperate efforts are now made to improve the situation.

Illiteracy is a serious problem in all these countries, despite the efforts that have being made through increase in number of schools and adult literacy programmes. Table 2.1 illustrates this point.

Though these general points, it is important that the different features of the various countries are included.

The size and location make Gambia the country with the least number of ethnic groups among these countries, with only three prominent languages being spoken by majority of the population. Two religions, muslims and christians dominates the country. The education is patterned after that of the british system with some modifications which will be discussed later.
Ghana has 75 languages and dialects with each associated with an ethnic group, there are 4 main ones that dominates the country. Though they have distinct cultural features but there values are shared throughout the country. The religious composition of the country is as follows: African religions (46%), Christianity (42%) and Muslim (12%).

Sierra Leone has 13 ethnic groups and languages, but there are 5 main ones that dominates at the moment. There are present efforts to further develop some of these languages so that they can be included in school system. The education system is patterned after that of the British system but some modifications are being undertaken presently.

Liberia has 17 distinct ethnic groups with each having its own language and culture. The education system is patterned after USA system of education, and very little has being done to introduce native languages into the education system. Christianity dominates the religious aspect of the country, the Muslims are a very small minority.

Nigeria has over 38 ethnic groups, but there 3 principal ones with very distinct socio-cultural orientation. These 3 groups dominates the 3 main regions of the country. According to 1963 censuses, these 3 ethnic compose of almost 60% of the population. There two major religions, Muslims and Christians, and by 1963 censuses Muslims were found to be 47%, Christians 35% and African religions 18% of the population.

2.3 ECONOMIC FEATURES

The economies of the countries under review are far from healthy, this is a phenomenon of most countries in the sub-region, the poorest region of the world (7). It is unfortunate to note that with the exception of Gambia all these countries do have significant natural resources if exploited to their advantage can change their economies significantly. It is even more unfortunate to note that for the past 25 years or more when these countries have become independent, they are yet to come out with strategies that will give them a viable economy. The dependency that these economies were entrenched in before independence still persists. Therefore to understand these economies it best that few comments are included on the dependency syndrome. It was best described by Reomer (8) as follows:

Market dependency; concentration of exports that are mostly raw materials. In some cases the countries exports are reduced to a
single commodity, as groundnuts for Gambia and petroleum products for Nigeria.

Technological dependency; large importation of foreign technologies, mostly turnkey and remained un adapted. The industrial base of these countries are extremely weak, only Nigeria is now making some attempt to produce certain intermediate goods.

Managerial and Entrepreneurial dependence; depend on a large extent on foreign personnel in key areas of management.

Foreign capital dependence; high demand for foreign capital to satisfy development needs and in some cases it is needed for recurrent expenditures.

These features stated above make their economies very unintergrated and inflexible so end up being highly vulnerable to the regular shocks of the global economy. The result has been huge debts by these countries that they are finding difficult to service. Though in international terms these debts are not large but their inability to pay has put them in an uncomfortable position with the creditors. Rescheduling and writing off debts have become a permanent feature in negotiations with their creditors. The debt situation can be seen at table 2.4. As can be seen in table 2.3 the slight improvement most of these countries had at the wake of independence (1961-70) started disappearing in the mid 70s and by 1980s they are recording negative growth a situation not entirely unconnected with the sharp price increases in crude oil in the 70s. Also this situation has resulted in worsening balance of payment problems that has deteriorated over the years as illustrated in table 2.5. The most disheartened feature in these economies is that the position they enjoyed between 1961-70 of positive food growth was lost to food import bills that have been rising ever since. Table 2.6 exhibit this point. Despite these common features there are differences between the various economies that require further comments.

Gambia's economy has been undergoing growth since independence as is shown in table 2.3. These gains were used mostly to expand their public sector (government industries, education, health, public works and agriculture). The severe climatic condition of draughts in 1980 and 1981 coupled with the political unrest in 1980 changed the fortunes of the economy. Introduction of policies such as increases in wages and salaries that followed only expanded the public expenditure which used up the capital that flowed into the country after the political problems. In order to satisfy their basic needs the country had to resort large external borrowing as shown in table
2.4. Reduced world prices for groundnuts, their main export and with meagre earnings from tourism and fishing only make the economy continue to worsened.

Ghana's economy throughout the 1970s and early 1980s has been in continuous decline in all its major sectors. This period was characterised by worsening growth rates as shown in table 2.3, growing budget deficits, table 2.5 and poor production figures. This situation resulted in a dwindling tax base, rampant smuggling, growing parallel market, foreign exchange scarcity, unprecedented inflation rates factors that destroyed the incentive of the work force. The acute shortages of basic food, goods and services that followed only contributed to political instability and poor management that ends up frightened the international community from investing in the country. The drought problem that affected the country in the 1980s did not only created problems in the agricultural sector but also prevented the Volta dam from attaining the required water level needed for power production which is used for both internal consumption and exports. The situation went so bad that in 1982 the government had to appoint a National Review Committee for formulating a programme for a national economic recovery. The result of this committee was implemented with help from IMF in a programme known as the Economic Recovery Programme (1984-1986). This programme which was aimed at establishing a framework for macro-economic stability in Ghana reversed the trend of the economic decline with help from the international community. There were noticeable signs of improvement in the standard of living, significant drop in inflation rates, increased production and confidence in the work force. The success of this programme led to the formulation of a second recovery programme that should last from 1986-1988 and is presently being implemented.

Sierra Leone's economy has been in serious crisis since the mid 1970s and this trend has continued since then. The closure of iron ore mines, a major foreign exchange earner and crude oil imports caused severe strain on the already poor economy. The high food import bill that followed only worsen the situation. The situation did not get better because of excessive public spending which only got worsened in 1980 when the government hosted the Organisation of African Unity conference. Unfortunately the existing misguided internal monetary policies only contributed to the sluggish economic growth that followed as can be in table 2.3. Even after 1980 the government did very little to control public expenditure and this attitude only aggravated the economic problem that resulted in an unprecedented foreign exchange scarcity and intense smuggling of the vital commodities. In late 1985, the new government that came to power has embarked on an economic recovery programme which seem to have altered the trend.
The economy of Liberia has been on the decline since the 1970s as is shown in Table 2.3. The economy is dominated by foreign enclaves that is contributing about 50% of the GDP, a factor that makes the economy very vulnerable to external forces. The foreign interests include mining, forestry and rubber plantation and these are the areas that have served as the vehicle for growth in the economy in the 1960s and early 1970s, due to the favourable prices for iron ore and rubber then. Unfortunately by mid 1970s, the situation changed, world demand for iron ore dropped, drop in price for rubber, price escalations of crude oil created problems for the economy. The hosting of the OAU conference in 1980 just worsen the economy and a revolutionary government was formed after a coup in that year. Social disruptions and inappropriate fiscal policies that followed end up with mismanagement and indiscipline in most sectors of the economy. This situation has continued to deteriorate and now the government is finding it difficult to meet its basic obligations such as paying salaries and also very high rate of unemployment.

The huge crude oil returns in the 1970s puts Nigeria in different position to the other economies that were previously discussed. The government used most of the increased oil earnings to expand their public expansion programme that started in the late 1960s but was stopped because of the civil war. According to (8) by 1980s the public expenditure was 70 times what it was in the 1960s. The oil boom that the country experienced in 1970s and early 1980s created serious problems that has affected their development, these problems include:

- the once vibrant agricultural export trade that existed up to the 1960s disappeared due to the dominance of crude oil.
- creation of ambitious development plans that they found very difficult to achieve.
- unprecedented inflow of foreign foods and luxury goods into the country due to the availability of foreign exchange that caused serious adverse balance of payment problems;
- mass migration to the main cities from rural areas due to the opportunities that was created by the rapid expansion in the service and construction industries.
- difficulty to maintain the very large public sector that the increased earnings created.

Since early 1980s the price of crude oil has dropped significantly
which means equal drop in earnings for the country. Hence the government has been forced to make adjustment programmes that has reduced the trade gap substantially as can be seen in table 2.5. The country has now embarked on an agricultural development policy that is aimed at replacing imported raw materials with local substitute in industry and hosting exports generally.

2.4 DEVELOPMENT STRATEGIES

The development objectives of the countries that are discussed since their attainment of independence has been to break away from the dependency outlined in section 2.3. They have tried several strategies but due to local and international problems they are yet to come out of the economic crisis that was discussed earlier. Though the development policies vary from one country to another, but there are common themes that seem to feature among the strategies in their drive to improve their cash inflow, these are:

- to increase the price of their exports (raw materials) inorder to earn more foreign exchange.
- to solicit greater financial aid from the western industrialised countries.
- to encourage foreign private investments by awarding concessions to multi-nationals.
- to request for more loans from the world community to pay for their recurrent and development expenditures.

The above strategies have failed to yield the required results because apart from the apparent contradictions in the strategies these countries lack the infrastructure and support systems needed for implementing them. As mentioned earlier all the countries been studied have various developmental plans outlined in development plans that were issued during the period under review. These plans will be reviewed separately.

2.4.1 The Gambia

The first development plan of the Gambia was launched in 1975, though during 1965-1975, they embarked on three development programmes but their objectives were very limited. The first was confined to administrative and social expenditures, the second was on improving communications and raising
groundnut yields and the third concerns diversification of the agricultural base, re-organisation of public utilities and increasing the public sector capacity for development planning and execution.

The first development plan (1975/76-79/80), was the first attempt by the country to carry out inter-sectorial planning at national level for social and economic development. The main objective of the plan was to achieve self-sufficiency in food production and higher incomes for the average farmer. Measures proposed are:

- to improve nutritional standards in the rural areas.
- to diversify rural cash crop incomes
- to achieve 35% rate of growth in domestically consumed crops and 45% growth in export crops by 1980
- to ensure rapid implementation of industrial projects
- to promote the establishment of labour intensive export industries
- to re-structure the educational system to satisfy the technical and managerial manpower needs
- to increase the use of locally manufactured building materials
- to protect the population from preventable diseases and provide adequate treatment facilities for common diseases

At the end of the planned period most of the goals were not achieved due to the economic problems outlined earlier, therefore the second Development plan (1981/82-85/86) only re-enforced the objectives of the first plan and emphasised the promotion of agricultural and rural development in order to achieve a major agricultural transformation. The huge public expenditure and debt problems led IMF to intervene during the plan period and the plan was revised to include a structural adjustment programme that should end in 1988. In this plan, agriculture was given a high priority and cut in social services as is shown in table 2.7. The rationale was to improve the foreign exchange earning capacity of the country so as to reduce the debt situation. As table 2.8 shows, the previous development budget has two problems, the inability to match the actual and proposed expenditures and the high value of unallocated expenditures.
2.4.2 Ghana

The first development plan presented in the country was the Seven Year Development Plan, 1963/64-1969/70. The main objective of this plan was summarised by the head of state in his forward to the plan: "The plan provides the blueprint for the future progress and development of Ghana as a nation. It is a programme of social and economic development based on the use of Science and Technology to revolutionize our agriculture and industry."

From 1966 to now the country has been having frequent change of political leadership and the desire to build an independent economy structured on its resource potential as outlined in that plan vanished. Successive government had to shape their policies on purely economic terms because of local problems. Another plan was launched for the period 1975/76-79/80. Though this plan had clear objectives but the acute economic problems during that period, the plan was abandoned. The civilian government which came in the late 1970s proposed a five year plan that was never implemented because they were short lived. The economic situation got so bad that the succeeding government had to set up a National Economic Review Committee with the main task of assessing the situation and formulate a programme for economic recovery. Results of this committee and with a standby credit from IMF, a National Economic Recovery Programme, 1984-1986 was agreed upon and implemented. The main aim of the programme was to reverse the trend of the economy within the framework of economic stability, to re-allocate resources and even out the distribution of income and restructure the basic economic institutions for a firm foundation for a balanced development. Apart from indentifying the problems and constraints at each sector of the economy, certain positive measures were proposed which include the following:

- rehabilitation of existing agricultural and forestry projects by providing the needed inputs, maintaining a favourable price structure and reforming the main institutions;
- rehabilitation of the transport and communications system in the country;
- provision of electricity and petroleum products to the productive sectors of the economy;
- provision of spare parts and materials for the mining and manufacturing industries and also support for the associated infrastructure of these industries;
- development of a primary health programme that aims at covering at least 80% of the population;
provision of equipments, textbooks and other educational materials and expansion of physical facilities;

completion of existing water projects and commissioning new ones, and buildings that has potential in the productive sectors.

As can be seen from tables 2.10 & 2.11 the first programme proved successful and this has led to the formulation of the second programme which should last up to 1988 from 1986. The main aim of the second programme is to consolidate the first and build upon its gains. The macro-economic objectives are:

- growth of GDP of 5% per annum
- reduction in inflation from 20% to 15%
- revenue growth by generating capital through reforming the tax structure

The expected growth due to such measures can be seen at table 2.11

2.4.3 Sierra Leone

Economic problems plagued the country for some time now and this thought has dominates the thinking behind the development strategies of the country. Therefore in the first Development Plan (1974/75-78/79), the main aim was to raise the productive capacity of the economy so as to achieve a higher level of economic and financial self-reliance and self-sufficiency so as to raise the standard of leaving of the population. The following measures were proposed:

- expansion of agricultural output, especially food production
- expansion of the manufacturing sector in absolute terms with a strong concern for maximizing the use of local resources
- development and diversification of the mining sector
- provision of electricity and clean water for substantial proportion of the population
modernization and expansion of the transport and communication facilities

re-orientation and restructuring of the educational system

improvement of health facilities by increased funding to the sector

expansion of social welfare services and improvement in the overall living condition of its inhabitants

Unfortunately during the plan period, the closure of the iron ore mines and the drop in the price and production of diamonds caused severe loss of foreign exchange earnings, hence affect the country's development plans because these commodities were the main foreign exchange earners in the economy. This resulted in the inability to satisfy most of the goals set in the first plan. Therefore the second development plan that followed lasting from 1981/82-1985/86 only emphasised the priorities outlined in the first plan. The additional measures proposed were:

- promotion of indigenous enterprise and creation of technical skills
- promotion of import substitution industries
- emphasis on integrated rural development programmes

Suggested strategies to accomplish them include stabilization of government finances, maximum utilization of existing capacities and potential and promote private sector investment by providing incentives. In 1983 the plan was revised slightly for the period 1983/84-85/86, and this plan was based on a rolling strategy in which plans will be prepared annually based on previous experiences. The main difference in the revised plan was the call for stricter financial discipline. The country continues to record poor economic performances until the government changed hands in late 1985. Early in 1986 the government launched a recovery programme after discussions with IMF that was based on the following measures:

- consolidating existing programmes
- establishing a realistic exchange rate for the local currency
mobilization of indigenous financial resources for development
improving the tax collection system

2.4.4 Liberia

The economic problems of the country has seriously affected its development strategy. Two development plans were launched by the government country during the period under review, the first one 1976/77-79/80 and the second 1981/82-84/85. The major objectives of the two plans can be summarised as the following:

diversifying economic production by strengthening agriculture and small-scale import substitution manufacturing industries.

distributing socio-economic activities throughout the country so that its benefits will be shared equitably.

ensuring total involvement of the population in development by improving social services.

stimulating liberian entrepreneurship and reduce unemployment

The allocation of resources during the period under review is shown in table 2.13, the shift in emphasis on agriculture as can be seen in second plan is the investments expected on integrated rural development programmes. The investments for human resources and infrastructure were to be made within the framework of rural development. The government also intends to modernise the agricultural sector and undertake limited primary processing in the mining sector.

2.4.5 Nigeria

The development strategy of Nigeria was dominated by the increased crude oil earnings they were recieving during the plan period. The two development plans launched before the period under review (1962-68&1970-74) were mainly sectorial programmes with very little coherent set of goals. The third plan, 1975-80 was different because a suitable planning machinery was in existence then. Table 2.14 shows that, as a result of the increased oil earnings several ambitious projects were proposed and most of the projects were in the form of expanded public expenditure programme as is shown in table 2.15.
The main objective of the plan was the enhancement of the living conditions of the entire population. The specific objectives were:

- ensuring more equitable distribution of wealth
- reducing in unemployment and underemployment
- diversifying economic activities
- increasing local entrepreneurship
- moving towards self-reliance and promoting new attitude to work

These same objectives were emphasised in the plan that followed, 1981-85. High priority was given agriculture, agro-based industries, expansion of infrastructure and development of heavy industries.

2.5 PROBLEMS OF DEVELOPMENT

Due to earlier discussion it is easy to identify that there are several constraints that do prevent these countries from achieving their developmental goals. The underlying reasons being that these countries have very poor economic base and so they are most vulnerable to external shocks, their trading activities are limited to importing finished products and exporting raw materials. There are also other problems that do affect them and these are:

- their economies consists of enclaves with very little links between them. Liberia is an example, in 1981 the average GNP per capita was $580, while in the enclaves it was $1620 and traditional only $160;

- erosion of their national reserves and they were forced to borrow huge amounts externally as can be seen from table 2.4

- political instability which is present in the region has proved destructive to their chances of external support, Ghana is case in piont;

- over-reliance on foreign capital for satisfying their development needs end up strengthened dependence which also affect development.

- low agricultural output coupled with flunctuating world prices of
for the produce has contributed significantly to reduce the foreign exchange and proves adverse to development.

shortage of manpower in key areas, financial indiscipline and poor administrative set up only affect development strategies adversely.
CHAPTER 3
EDUCATION SECTOR

3.1 INTRODUCTION

At the wake of independence most African governments were fully convinced that education can be used as a development tool and a strategy to overcome the dependency syndrome they found themselves in. This led to the attitude they adopted since which was to increase their commitments and investments in the education sector. This attitude was manifested by the high growth figures in school enrolment for sub-saharan Africa. The enrolment annual rates between 1960-1970 grew to 5.4, 11.4 and 11.7% for primary, secondary and higher education respectively and between 1970 and 1980 it was 7.3, 13.4 and 11.5%. The substantial growth in first two levels show more clearly if one look at the growth over the entire period. Between 1960-1980 the primary enrolment ratio rose from 36% to 60%, secondary from 3 to 14% and higher from zero to 1.4%. Unfortunately the high population rates in these countries has made this improvement less dramatic.

These high growth figures did require large increases in government expenditures since most the institutions recieve funds from government. The present economic problems of the continent have forced them to moderate their plans. Yet still certain countries have made significant strides in this area, these include Swaziland, Tanzania and Nigeria which have achieved over 90% enrolment ratio at primary school level.

This chapter will discuss the role of education in national development before looking at the various systems that exist in the countries studied. Then the policies and strategies and the management including funding mechanisms were discussed along with the problems of development in the sector.

3.2 EDUCATION IN NATIONAL DEVELOPMENT

The countries under review show higher values than the average figures for the continent. At primary level the enrolment ratio was not less than 60% and secondary 25%. At present there over 30 universities within these countries which show that higher education has recieved some attention from the authorities. Education was given due attention by the various governments, until recently these governments were spending up to 20% or
more of their total expenditure on education but recent economic constraints have made them to concentrate their efforts on the productive sectors of the economy the expence of social services including education. Though these general comments, there are specific ones that are country specific.

The government of the Gambia took education very seriously from the onset of independence and have been trying hard to harmonise their education plans with their development strategy. This attitude is manifested by the significant expenditure that went to education during the 1970s. The main points of their strategy show their determination to link it with the education sector, such points include the following:

- Expansion of facilities at the primary level, in order to move towards the goal of access of primary education for all Gambians by the year 2000.

- Introduction of agriculture and rural development into the school system including the first level, so that dropouts from that level will be equipped with skills that are needed for development.

- Restricting their emphasis to fields that are vital for the development of the country.

Since Ghana got independence, the head of state then was fully convinced that education is one of the tools that would free the country out of the dependency problem. He therefore devoted significant funds to this sector at all levels, an attitude which is responsible for the high enrolment figures that can be seen in Table 3.2. The economic problems of the 1970s & early 1980s account for the poor growth figures shown in Table 3.6, even during that period the government was trying very hard to keep to their target of spending one-third of their GNP on education annually. In the economic programme, ERP education was given its due attention but emphasis was put at the grass roots.

Sierra Leone has a long history of education by having the first university in the region as far back as 1827, unfortunately the training and curriculum was restricted to classics, humanities and religious studies due to colonial influence. However, after independence the government has been trying hard by setting several committees with aim of making the educational system more relevant to the needs of the country. This move have had some success which are manifested by the following:

- The setting up of Njala University College in 1964 with the main...
aim of training students of agriculture and related fields.

the introduction of training of engineers at Fourah Bay college, the university of Sierra Leone;

development of the technical institute in Freetown and establishment of trade centres in several parts of the country.

introduction of business studies at second level education and at the university curriculum.

Much emphasis was not put on the education sector in the early days of independence in Liberia. Though the country has the three levels of education but has not created much impact in the region. However, recently the government has been making effort to integrate the education strategy with, that of development. Efforts were manifested by the development of agricultural education up to university level, the curriculum is revised to reflect the development objectives of the country. Unfortunately the high drop out rate and staff turnover made them depend on foreign staff in the education sector. This situation will make the policy of Liberianization in all aspects of their economy be very difficult to achieve.

Nigeria as most countries already discussed did give education a significant place in their development strategy since independence. During the oil boom when the country was receiving increased earnings, they spent substantial funds to expand facilities at all levels of their educational system as can be seen from table 3.6. This attitude did change the growth rates at all the levels in the system as shown in table 3.5. Most of the expansion has been emphasizing science and technology especially at higher education, this move was in keeping with their development objective.

3.3 EDUCATION SYSTEM

Education has a long history and one of the most developed sector in the countries being reviewed in this study. All of them have a developed an infrastructure and other support system in their education sector. With the exception of the Gambia all these countries have a very well organized third level education system. This situation has been due to the following reasons:

they all inherited an educational infrastructure from their
colonial masters which they have built upon.

the governments of these countries are fully convinced from the onset of independence that education is a tool for development.

However because of economic and other problems that has been affecting them they were forced to moderate their plans and education has been receiving large cuts from their development budgets. Despite all the problems these countries have managed to maintain very good education systems which are briefly discussed below:

3.3.1 The Gambia

The educational system of Gambia comprises of two levels, generally referred to as primary and secondary. There is a pre-school system that admit children at the age of 3 years and above, where they stay till they are ready for primary school. These schools are normally run by private organisations and receive very little attention from the government.

In 1976, the government changed the entry age from 6 to 8 years for primary schools and it last for 6 years with no formal certification at the end. Agricultural and vocational training were then included in the curriculum in order that the large amount of pupils that fail to go to secondary schools can be useful employed in the productive sector. At the end of the primary education pupils take a common entrance examination for selection into secondary schools, this examination is conducted by the W.A.E.C. The type of secondary school is also decided upon because there are two types, the technical school and the high school. The technical schools, formerly the junior high schools provides a five year course with a terminal examination, the stress on the course is on technical and agricultural subjects. Apart from the five year course that emphasises on academic subjects that is carried out at the high schools, some of them have a further two year course that leads to the G.C.E "A" level examination. The pupils that do the five course take the G.C.E "O" level examination, both run by W.A.E.C.

A new college has now replaced the old Gambia college with a much wider programme since the early 1980s. The programmes in the new college do not only train teachers for primary, secondary technical, junior classes of high schools, but also train middle level manpower in agricultural education, nursing and public health, home economics and nutrition, and technical and commercial disciplines. There are plans for training students for degrees in external universities. At present there youth programmes
where youths are trained for jobs in agriculture and basic craft.

3.2.2 Ghana

The educational system in Ghana consists of the three levels of education and it has a pre-school system that is the most organised among the countries been studied. The pre-school system consists of two sections, the nursery involving children from 3-4 years and kindergarten for 5-6. The government do not contribute much towards the running of the school, churches and other private organisations do most of it.

Primary education starts at the age of 6 and last for 6 years at the end the pupils take a common entrance examination and those with high grades go to secondary schools that have an academic bias, where they will take the G.C.E. examinations as in the Gambia. Ones with lower grades go to either the middle school, junior secondary school or continuation school. In the middle school students get automatic promotion and it last for 4 years, the first are spent in the classroom while the other will be on practical skills in craft and vocational programmes. In the continuation schools all the 4 years are spent on vocational and technical training. Junior secondary schools are more academic than the other two and pupils with good grades are allowed to go to higher secondary schools were they take the G.C.E.examinations.

The government of Ghana restricts the entrants for the "A" level examination to only 9% of high school leavers each year and those sucessful go to one of their three universities. Further craft training can be carried out in one of the 17 technical institutes and technician training in one of the 3 polytechnics. There are also 2 out of the 38 teacher colleges that train technical teachers, these colleges accept pupils from middle school and train teachers for primary and middle schools. There are 6 colleges that train advanced teachers in agricultural education, physical and art education, music, business and general liberal studies. The three universities train manpower in high level teaching, medicine, lawyers, engineers, adult educators, architects, African studies, architecture, pharmacy, industrial art, agriculture, liberal arts and pure science.
3.3.3 Sierra Leone

Sierra Leone's system of education consists of three levels of education and a pre-school system which is mostly nursery education and is funded by private organisations. There are a few cases in which government do pay the salaries of the teachers.

In 1985 the entry age for primary school was changed to 6 years from 5 and the duration reduced from 7 to 6 years. At present the primary school system is being revised to include the use of new textbooks based on local content, introduction of local languages and increasing the number of schools in the rural areas. The pupils from the primary school take the selective entrance examination that would lead the successful ones to one of the grammar school type secondary schools. There are no technical schools as in Ghana but some of the schools now do agriculture and technical subjects. Some of the secondary schools do have a two year sixth form, where pupils are prepared for the "A" level examinations. There is one technical institute that train technicians and four trade centres for training tradesmen. Teachers are trained at two levels, for primary schools in 5 of the 6 colleges that train teachers and the other for lower level secondary school, this college also train teachers in business studies and technical areas. The university that is made of 2 colleges and 2 off campus institutes and train students in advanced teacher training, liberal arts, pure and applied science, engineering, agriculture, law, community health, African studies and adult education.

3.3.4 Liberia

Liberia as the previous two countries discussed have three levels of education and a pre-school system that is privately funded. The major difference in Liberian education system as opposed to the other systems discussed is that the former is based on USA system while the others are on the british. The primary education starts at age 6 and last for 6 years. After the elementary school the pupils then move to the junior high schools that last for three years. At the end of the junior high school the pupils take a national examination that is conducted by the W.A.E.C, pupils are then selected for senior high schools that last for another three years. At the end of the three years another national examination is taken, successful pupils are allowed to take the entrance examinations for
university. Each of the two universities have their own entrance examination. The flexibility and diversity in the university system allow for more students to enrol, this explain why Liberia has a higher enrolment rate than the other countries that are reviewed. As in the other countries there are teacher colleges that train teachers for primary schools and lower classes of secondary schools, the advanced teacher training is carried out at the university.

3.3.5 Nigeria

Nigeria as in the previous countries have three levels in their educational system with a pre-school system that is mostly privately supported. The first level admits pupils at the age of 6 and the course last for 6 years after which the pupils have to take a common entrance examination which decides on the type of secondary school a successful candidate will attend. There are two types of secondary schools, one type puts more emphasis on academic subjects while the other on technical and commercial subjects. At the end of 5 years at the secondary school the students take the G.C.E examinations as in the other countries, some students stay and do two more years for the "A" level examinations. During the 1970s the government expanded the university education significantly and now successful students can choose to study in any of the 24 universities in country, these universities cater for most of the courses that are needed for developmental needs of the country. The country also have 17 polytechnics where technicians and other middle level manpower professionals can be trained.

3.4 POLICIES AND STRATEGIES

The great advantage of the education systems in these countries is that the sector was the most developed at the time of independence and this has contributed to the case in which all these countries do have policies and strategies in this sector. The major constraint has been implementing these policies.

A common theme in all the policies is the emphasis on primary education, they have been committed to have all children over the age of five in school by the end of the century. Though it may be difficult for some countries to achieve but they have all made significant strides in this direction as can be seen in table 3.5., unfortunately the rapid population growth rates and uneven distribution of facilities negate the gains that
have been made. The other main interest has been the determination to relate their educational system to the local needs of the society by constantly reviewing the school curriculum.

Since the policies do vary between the countries, the discussion will be done separately.

3.4.1 Gambia

The education policy of the Gambia, 1976-1986 forms the guidelines for strategies in the education system. The main aim of this policy can be summarised as such:

Each child should be accepted into the educational system without discrimination. The child should be provided with a stimulating environment and opportunities for learning experiences designed to promote behavioural development that will affect continuing satisfactory adjustments to life.

In applying this philosophy, opportunities should be made available for the children to do the following:

to develop his/her interests and abilities.

to develop desirable attitudes towards citizenship and democracy, emphasising interest and involvement in the community and world problems.

to develop emotionally, morally and socially so that he/she will be able to cope with life problems.

to develop a healthy body

to develop cultural and aesthetic appreciation and encourage creative participation in art and his/her cultural heritage.

to promote the attitude that a nation of educated farmers living in villages of an optimum size will become a model of stable and happy society.

to be equipped with sufficient vocational skills to earn a living and be an economically useful member of the society.

This philosophy dominates the thinking in the education sector of their
two development plans that was launched during the period under review. In the 1975/76-79/80 plan, the following measures were proposed:

- creation of a stock of trained manpower capable of servicing the socio-economic needs;
- provision of a continuing system of education at both formal and non-formal at all levels;
- re-structuring and re-orientation of the secondary and tertiary levels to produce the skilled manpower the country needs.
- expansion of non-formal education by functional literacy and numeracy programmes as part of the integrated rural development.
- introduction of a revised curriculum for primary education.
- expansion of the primary school places by giving preferences to rural areas.
- introduction of teaching local languages in primary school.
- introduction of a six year primary school course starting at age 8.

In order to implement these measures, certain innovations were introduced in the education system, which are:

- continuing education scheme to train youths, mostly dropouts from primary schools.
- school broadcasting unit for training unqualified and untrained teachers.
- teaching of three main local languages in the school system.
- free non-compulsory primary education.
- entry age to the primary school changed from 6 to 8 years.
- introduction of two types of secondary schools, with the curriculum of one biased to technical and vocational training.
- setting up Gambia college as four different schools;
agriculture, public health, teacher education and nursing.

setting up of the national vocational training board whose main aim will be to recommend national policy to government on technical, vocational, industrial and rural development training, the head, Director-general being attached to the Presidents office.

setting up of the national literacy advisory committee.

3.4.2 Ghana

The education Act of 1974 mostly confirmed the goals set at the early days of independence, the main policy issues which dominates the education system since have been:

fee-free education and compulsory at first level and tuition free at the other levels.

pupils pay only a token fee for textbooks and do not pay for stationary at first level, but in second level, textbooks are subsidised and pupils pay for stationary.

free boarding and lodging for students of colleges training to teach the handicapped and the initial training in teacher training colleges;

provision of apprenticeship training for dropouts of the first level and increased exposure of technical/vocational skills in junior secondary and continuation schools.

In 1982, the government issued new proposals in a document entitled "Guidelines Towards a National Education Policy". The main areas of thrust in this document were, the need for government control of education, relating the curriculum to the culture and making the education system research and practical oriented. The long term objectives were:

introduction of compulsory education for every child up to the age of 18

creation of an environment for those students with the ability to pursue it to the highest level.
establishing an adult literacy programme for all those that are entitled to it.

ensuring that drop outs enter the education system if they wish to do so.

Additionally, it was proposed that equal emphasis be given to both academic and technical subjects in the middle schools and the use of local support to build day secondary schools. It was further proposed that there should one university of Ghana, then the existing ones become campuses. In 1983, the government issued a general policy of the education section clearly stressing the need for social justice and equal opportunities for all Ghanaians and the adoption of traditional cultural values as an integral of growth and development of the society. To put these measures through certain innovations were introduced, these were:

utilization of student on national service to work on adult literacy programmes.

introduction of the modular approach to train teachers; the students spend two years on the job training while given self taught module lectures that are supplemented with weekend and holiday classes, then spend another two years of classroom tuition.

introduction of production units in technical institutions that produce school furniture, repair vehicles and renovation of school buildings.

establishment of local examinations for technicians.

3.4.3 Sierra Leone

The policy of education since independence, concentrated on making the curriculum relevant to the needs of the country, this desire was clearly stated in the governments paper on education in 1970. The section on education in the first development plan, 1974/75-78/79 emphasised the interest of the pupils, the training needs and increased expenditure. The specific specific objectives of the plan were:

increasing the growth rate of enrolment in the primary, teacher and technical education and reducing the rate of expansion in secondary and university education.
improving the quality of education at the school level, mainly through expansion of teacher training programmes.

relating the content of education to the needs of the country.

raising literacy in the country as a whole especially using out of school education systems.

Certain measures were suggested as means of accomplishing these goals, these include:

acceptance of free primary education as a goal, but for the future, increase of schools at primary level, mostly in rural areas, reduction in the price of textbooks and other materials and improvement in the quality and quantity of teachers;

introduction of the teaching of technical, agricultural and commercial subjects in secondary schools. Revision of curriculum in English, mathematics, science and social studies;

introduction of in-service training for teachers with each teacher attending it at least once in five years;

improvement of vocational training with increased financial support.

In the second plan, no new goals were set from those of the previous plan, but emphasis was put on the development and integration of indigenous languages into the school system and the promotion of diversifying programmes at the university. During the period being reviewed some innovations were introduced into the education system, these include:

revising textbooks to suit local needs for primary schools and building of primary schools in the rural areas using local were possible.

teaching of indigenous languages in the primary school system;

training of teachers specifically to teach rural development and related subjects;

diversifying and re-orientating secondary school teaching to
include art, music, agriculture, technical and commercial areas.

centralization of research activities at the university and also at the higher teachers college.

3.4.4 Liberia

The main policy objective of Liberia in education was to provide basic education to its citizens through formal education. The specific objectives can be summarised as such:

- expansion of enrolment at primary school level;
- revision of the curriculum of the school system to reflect the national culture and conditions at the country;
- promotion of social equity of education for all Liberians;
- development of science teaching in the school system;
- improvement of the internal and external efficiencies of the school system at all levels;
- production of textbooks relevant to the environment and the community.

These measures dominated the educational strategy during the period that is been reviewed.

3.4.5 Nigeria

The major concern for education in the Nigerian third development plan 1975-80 was to rationalize activities within the sector so as to ensure orderly expansion of facilities to meet the demand at all levels. An expansion of the programme, with the first two levels done based on the response to identified needs of all localities and at tertiary and higher education should be to meet the assessed manpower needs of the country. The specific objectives of the plan were:

- expansion of facilities for education aimed at equalising individual access to education throughout the country;
revision of the content of general education to make it more responsive to the needs of the country;

consolidation and development of higher education in response to manpower needs;

rationalization and strengthening of the machinery for educational development.

improvement of technological education to meet the growing needs of the country.

In order to achieve these goals the following measures were proposed:

reduction of boarding and tuition fees for secondary schools and award of more government scholarships and bursaries and as a long term goal to have free education up to secondary level.

expansion of existing and establishment of primary and secondary schools in order to increase the enrolment ratios, but should be carried out based on population distribution and district;

revision of curriculum by introducing more practical courses to the secondary school system with the hope of having it in all schools;

abolishment of sixth form classes in secondary schools and setting up of junior colleges that will run side by side with preliminary classes at the universities.

intensification of teacher training by giving automatic scholarship to new entrants, revision of the course, and increased incentives to teachers;

design of adult education and literacy programmes that are adequate and functional. Setting up a mechanism to study the possibility to have corresponding colleges at secondary grammar schools and vocational levels for drop outs.

increased support for existing schools for handicapped and the establishment of such schools where the need arises.
3.5 EDUCATION MANAGEMENT AND FINANCING

In all the countries studied, the authorities were convinced that education should be a service to the community and hence see it as their responsibility of the government to provide this service. This idea was partly inherited from their colonial master, and the conditions at independence. Hence the governments not only manage the education system but also fund most of the expenditure in the sector. In Liberia, the private sector has always involve in the educational sector more than the others, though the situation has changed with the government involvement increasing. Despite the countries do differ in attitude due to their historical background it is now becoming very clear to the concern authorities that education must be treated as a service, because majority of the population will never be in the position to pay the direct cost of education. Table 3.8 illustrates that in all the countries studied, they all spend between 2.5 to 4% of their GNP on education. Unfortunately, due to current economic problems most of the expenditure, up to 80% in some cases go to paying salaries and materials with very little for development activities. They depend on foreign support for development which make them very vulnerable. However, since the 1970s some changes have been made in the management and financing of education as will be shown in the ensuing discussion.

In 1976 the government of Gambia adopted a policy of de-centralization in its administration. A Regional Education Committee headed by a Regional Principal Education Officer was set up with the responsibility for all aspects of the region and give advise to the central office on the needs of the area. At the central office an Advisory Council on education, chaired by the Director of education then advises the minister of education on matters of importance. To meet with the various innovations suggested earlier in 3.4, the government set up four new units in the ministry of education, these are four units namely; curriculum development, schools broadcasting, evaluation/research, guidance/counseling and book production/resources material.

The government pays the salaries of teachers at all levels in the system, and salaries of ancillary staff in all primary and government owned secondary schools. The government also provides funds for materials and equipments for all primary and government owned schools and all capital expenditure involving buildings. This puts a heavy financial burden on the government.
In 1974, the Ghana Education Service (GES) was established by the government for managing and supervising all levels of the educational system below the university education, and to draw up policies and programmes. GES operates under a council which is responsible to the commissioner for education. It is headed by a Director-General who is a member of the council and reports the activities of GES to the council. The government also established a council for higher education which is responsible to oversee university education. In 1983 the government dissolved the GES council and the council of higher education and their functions taken over by the Secretary of education who is advised by the newly established National Education Commission on matters of educational policy, including university education. The Secretary heads the ministry and is assisted by two deputies, one for higher education, mostly university and the other for pre-university education. The ministry consists of the following bodies: Ghana education service, Ghana library board, Bureau of Ghana languages, Ghana Institute of languages, book development council, education commission and National archives. At regional and district levels, education is administered and managed by regional directors and district assistant directors, religious bodies assist in the management of institutions originally built by them.

The government provides the salaries and allowances of teachers and educational administrators as well as stationary and textbooks, which are almost free at the primary and middle school level. They also caters for the provision and maintainance of school buildings and equipment in the second level of the system. Tuition is free throughout the system and government subsidizes feeding programmes of second and third levels which are mostly residential. Apart from this, the government gives scholarship to the needy regions of the country for secondary and tertiary levels. The level of financial responsibility of the government shows their determination to use education as a tool for development and make it accessible to all.

In Sierra Leone the ministry of education is the principal authority for all aspects of education in the country. The administration of the first two levels is carried out by the ministry in cooperation with several local bodies, but the daily management of the primary schools is delegated to the school authorities and in secondary schools it is done by board of governors that are appointed jointly by the ministry and the proprietors of the school. The trade centres, technical institutes, teacher colleges and government schools are operated directly by the ministry of education. The government established the institute of education in 1968 which work in close colloboration with the ministry, teacher training colleges and the university. The professional section of the ministry is headed by a chief education officer and is made up of several divisions namely; primary,
secondary, teacher, technical and science, and several units; school broadcasting, home economics, publication, physical education, arts education and inspectorate for the first and second levels. The various regions and districts are managed by Regional Principal Education Officers and inspectors respectively.

The government pays the salaries of all teachers in the education system and provide funds for equipments and materials for government and government assisted schools. Private schools in the first level pay the salaries of their staff. The schools in the second level are allowed to charge fees which they are expected to use for the maintenance of buildings and other expenses, but the government pay some of these costs for schools owned by the government. In the university education, tuition fees are charged but it is very low, hence the government subsidise the running of the university including feeding of the students. The government gives scholarship to deserving and capable students to the university.

The ministry of education in Liberia is responsible for all policies in the education system and is also responsible for the general management of the government and government assisted schools at the first and second levels in the system. The private schools which are significant in number at both these levels are managed by the proprietors and charge fees to cover the operation of the school. The government pay for some running cost of government and government assisted schools. The university lecturers are are paid by the government and they give few scholarships deserving students, hence there is a large percentage of private students in the university. The Liberian educational system do not have much funding from the government as in the other countries discussed earlier.

The overall responsibility of education in Nigeria is the duty of the federal ministry of education who are directly linked with the state ministries of education. The state ministries are responsible for the provision of all facilities in government and government assisted schools in the first two levels of the school system. Fees are subsidized for tuition and boarding in secondary schools. The universities are run by a National Universities Commission which is responsible for advising and the formulation of policies affecting the universities in the country and also supervising the planning of universities. The government give scholarships to deserving students to attend one of the universities based on needs of the country and the individual.
There have been serious problems in the educational sector since these countries got independence over 25 years ago and most of them still persists. These problems range from economic to cultural and do have effect on other sectors as well.

When these countries got independence, they were very worried about illiteracy and the low enrolment of school going age children so most the efforts then were geared towards expanding the school places inorder to increase their enrolment ratios. This move met with significant success, but it means increased expenditure and responsibility for the government that they cannot afford now. Reasons for this situation can be attributable to their historical background as well as their current economic climate in these countries. Most of the primary and secondary schools before independence were owned and managed by local and private organisations, mostly religious. After this period when the governments wanted to expand the educational facilities, they had to use these schools by injecting huge funds into the system such as payment of salaries because it would have been impossible for the government to allow the proprietors to bear the full cost of the expansion. This explains why these countries many state assisted schools in the countries that are studied but this situation has also caused certain problems which include uneven enrolment in the distribution of schools between rural and urban, uneven distribution of facilities which affects the quality of the output, etc. Since these problems can also be country specific, some discussion are included which will highlight these problems of the respective countries.

The most important problem in the Gambia is economic and has prevented them from building new schools and improving their equipment and materials in the schools, consedering the skew distribution between urban and rural the latter is suffering. The current structural adjustment programme that is in operation do not help the situation because it calls for major cuts in the non productive sectors of the economy including education. It is difficult because also the country has programmes that are expected to make their curriculum more relevant to their needs, but they have to be suspended due to these cuts.

The economic problems of Ghana in the 1970s caused significant numbers of the highly trained manpower to leave the country and work abroad and now that they need this human resource to assist in the major economic recovery programme they are not available though some are now returning. These problems do have adverse impact on education system because the government
is forced to curtail its plans of introducing new programmes, such as making the system more relevant to their needs.

The problems in the education sector of Sierra Leone are many and has an impact at all levels, they can be categorised as such:

- Gross disparity between enrolments in urban as opposed to rural areas, the gross enrolment at primary level for urban areas is 70% while in rural areas is 25%, this problem will be difficult to solve because of settlement pattern in which over 30% of the population live in villages with less than 200 people;

- The large dropout rate at primary and secondary schools and uneven distribution of facilities coupled with overcrowding in urban schools have had adverse effect on the quality of education in the country;

These problems and the current economic situation of the country will make it difficult for them to achieve their goals in education.

Low level of educational achievement by graduates of the system and high dependence on foreign staff has characterised the problems of education in Liberia. These problems are becoming more marked because of the current high rate of migration to the cities from rural areas causing overcrowding in the schools. The poor level of intake at all levels is causing the system to end up with ill-prepared graduates for the labour market. The situation is only getting worse with the high dropouts and repetition rates throughout the system and equally high staff turnover. The present policy of Liberianization will be difficult to achieve with these problems in the education sector.

The major problem in education sector in Nigeria is to cope with the sudden expansion the sector encountered in the 1970s and early 1980s. The growth rates were far higher than the rates of production of manpower, hence shortages in all levels became eminent, and they have to depend mostly on foreign resources which they can no longer rely on since they lack the foreign exchange to maintain them. The large importation of foreign materials and equipment in this sector is also causing problems because it is proving costly to maintain them.

Apart from these rather general problems, there are certain issues that is common among these countries and they require further amplification, these are; returns of education, manpower needs, higher education and research and development. These issues will be discussed separately including some suggestions of how they can be overcome.
3.6.1 Returns of Education

The thinking of most African governments was to fund their education sector up to 25% of the total budget till early 1980s, but the economic problems of the past few years have put this reasoning into serious reassessment. Unfortunately the economic decline continued and revenues are either stationary or reducing, education sector will be one that will be under serious scrutiny. An aspect that has attracted some attention has been the returns from the education system, according to (12) primary education is by far the most beneficial, next come secondary. Further analysis reveals that personal benefits is significant as opposed to social benefits to the nation including indirect economic benefits. These results raises very important policy issues that need attention, while it may be advisable to increased government subsidy in the primary school system but it will become increasingly difficult to show justification for such practise at higher levels, especially at university education. The future trend will be to transfer most of the costs to students as the economic situation gets worsens. Ghana is a perfect example of this idea, the ERP calls for some cost recovery at the second and third levels of their education system. This line of thinking seem to have dominated the various structural adjustment programmes now being prescribed for these countries by the IMF.

3.6.2 Manpower Needs

An important issue in educational planning in African countries including the ones been studied is the lack of information on their manpower needs, without such information it is extremely difficult to match educational training with the needs of the nation. Due to the absence of this data unemployment and underemployment of educated people including third level graduates is becoming rampant, yet the need still exist for large number of expatriates. This issue do raise questions on the type and contents of courses that are followed presently because while certain fields are saturated others found lacking. Manpower needs information that includes; the labour market at all levels, vacancies at any onetime, level of expatriate employment, manpower surveys, unemployment rates, tracer studies of graduates at all levels and hiring procedure of expatriates at both private and public sectors must be carried out regularly.
3.6.3 Higher Education

University education is becoming increasingly controversial in most countries of Africa, due to dissatisfaction from the general public, who it is not clear to how the university can help to get their daily needs satisfied, the industrial sector would argue that their expectations are not satisfied, the government views in terms of expenditure within the context of declining economies. These factors add on to the debate over the usefulness of higher education in Africa. Its usefulness cannot be questioned considering the contribution it has made to these countries for the past three decades, however the message from the debate calls for an evaluation of the entire third level education system. The government and other concerned authorities should set defined goals realising that at present higher education on the average uses about 25% of expenditures of which is about 25% of total expenditures, the continent has the highest unit cost of education at that level, twice of latin America, almost ten times that of Asia, and this level gives the least rate of returns to the country. There should also be some evaluation done within the university system and studies carried out for the possible introduction of far more flexibility in courses and content by both students and lecturers.

3.6.4 Research and Development

This area has not received serious attention by most authorities mainly because they always seem fully occupied with survival strategies and want urgent solutions, and research do not seem to provide answers rapidly. This situation has made the local R&D institutions always look outside for funds for equipments and infrastructural support and in some cases even for the most simple analysis. With a good R&D system most of the problems identified could be avoided especially data collection and analysis which these countries seem so deficient in. Unfortunately even the small efforts that the local institutions are making hardly do get the attention from the authorities due to poor linkages between institutions in these countries.
CHAPTER 4

SCIENCE AND TECHNOLOGY SECTOR

4.1 INTRODUCTION

Though all the countries under review as for most African countries are fully aware of the importance that Science and Technology (S&T) can play in their socio-economic development but very few of them do have a well defined S&T policy or even the structure to formulate one. For the countries, only Ghana and to some extent Nigeria that have policies and organised institutions for formulating and implementing these policies. It is worth noting that these countries especially Ghana has made efforts to integrate their S&T policies with their overall development strategy. It should also be mentioned that due to the UNCTAD meeting held in Vienna in 1979 and subsequent meetings all the countries in the sub-saharan Africa now do have local programmes in S&T activities, though there are large variations in these activities as will be seen when discussing the respective countries below.

This chapter attempts to look at the role S&T is playing in the development process of these countries and examines the S&T policy body if there is any. The S&T policies and strategies are reviewed along with the human resources and funding for S&T in these countries.

4.2 SCIENCE AND TECHNOLOGY IN THE OVERALL DEVELOPMENT STRATEGY

All these countries do have either a science and technology policy or statement by the government on S&T which are used in their overall development, but they are different stages of implementing these ideas. The countries can be divided into two categories, Ghana and Nigeria in one and the other three in the other. The former have not only realized the importance of S&T but have made concrete steps to use S&T policies in their development while the latter still do not have the machinery for formulating a policy. A major underlying factor which contributed to this situation has been their background in S&T activities, they inherited a poor system from their colonial past and did very little to change it. More attention needs to be devoted to S&T research and development. From
past experiences of other countries it has been shown that the situation in these countries can improve substantially if there is a policy-making body. Countries with such bodies have not only had S&T policy but have sections or chapters in their development plan devoted to S&T with regular allocation are made on the annual budget for activities related to S&T. Due to the difference mentioned above these countries will be discussed separately.

4.2.1 Gambia

Gambia do not have a university and this has limited their institutional capability in S&T, but the size and population does not justify one. They do have an agricultural college that trains middle level manpower and also agricultural research centres that provide results for the ministry of agriculture. The overall development strategy is aimed at rural development and agriculture, therefore these institutions can play a role in the development objectives but at the moment the impact is very limited, because the linkages between these institutions are very weak.

4.2.2 Ghana

Ghana has involved in the promotion and integration of S&T as part of their overall development strategy since they got independence, unfortunately the economic problems of 1970s affected growth in this area. The government formed the National Research Council (NRC) with the objectives of organising and co-ordinating S&T research nationally that are geared towards national development, and to provide resources for S&T services. The head of state was the first chairman. Another manifestation of the interest shown by the government can be seen at the forward of the first national development plan: "the plan is a programme for the socio-economic development of Ghana using S&T to revolutionise agriculture and industry". Following the formation NRC the Academy of sciences was also formed and they assisted significantly to popularise S&T in the country. Despite the problems of the country, in the 1975/76-79/80 development plan an entire chapter was devoted to S&T policy, a move that rekindled the activities of the Council for Scientific and Industrial Research which was formed in 1973. S&T has always been given its due recognition in Ghana and in the present ERP S&T was given its due prominence.

4.2.3 Sierra Leone

There is no S&T policy or body responsible for formulating one. There is an interim council for S&T for development that has existed since mid 1979.
A paper from the council was submitted to the government to form a policy making machinery. This paper was drafted based on a national seminar held in Freetown in December of 1985. The country has a university that trains S&T personnel who are useful in the country's drive to develop the agriculture and engineering sub-sectors of the economy.

4.2.4 Liberia

Liberia, as in Gambia and Sierra Leone, does not have a S&T policy making body or any agency responsible for formulating one, despite efforts by local and international organisations to have one. The country has two universities that train personnel in the key areas that are needed for their development strategy, agriculture and engineering.

4.2.4 Nigeria

The Nigerian government in the 1981-85 development plan which aimed at self-sufficiency in key areas of the economy proposed definite measures to accelerate technological development in the economy. It was stated in the plan that the government do realised that technological underdevelopment is responsible for the inadequacies in their capability to implement various development policies which were previously proposed and in the training of manpower. The interest continued and in late 1970s the new ministry of science and technology was established which became the controlling body for all S&T activities in the country. This control includes universities, R&D institutions, and local and foreign organisations. This move by the government helped significantly in promoting S&T in the country.

4.3 Policy-Making Body for Science and Technology

The interdisciplinary nature of S&T makes its activities cut across several existing ministries and this dictates the need for setting up a central body responsible for a national policy in this area. The situation that is in existence in most of these countries was to have respective sectorial ministries be responsible for areas that fall into their ministerial activity. This has created problems for S&T development because they have no single body responsible for new areas in S&T which are mostly inter-sectorial so end not given the attention it deserves. Also it makes S&T projects vulnerable to budget cuts because no official to defend it at high enough level. On the contrary, having such a body can provide certain gains including enhancement of higher institutions in S&T, improved chances for the promotion of S&T and a body will be responsible for an important activity, technology acquisition. To have such a body involves...
the building of a machinery that will consist of different levels., Though there are no fixed ways of developing the machinery but a model suggested by UNESCO (9) giving the various functions can be used as a guideline and is briefly described below.

- **function level 1:** general S&T policy (committee of ministers)
- **function level 2:** management of the S&T system (councils, commissions, etc.)
- **function level 3:** execution of R&D (educational institutions, research labs, etc.)
- **function level 4:** execution of S&T services.

Looking at the different functional levels above it shows that the countries under review are at different stages of developing this machinery and will therefore be discussed separately.

### 4.3.1 Gambia

There is no national S&T policy making machinery in the Gambia but certain agencies are now performing functions at level 3 & 4 as outlined. These activities are not co-ordinated so to a large extent unsatisfactory, but in some cases they do have limited impact on the society such as the local R&D institutes providing services to government ministries.

### 4.3.2 Ghana

There were various research organisations located in Ghana there before independence and they built on that foundation to form the NRC in 1958. Despite the merger between NRC and Ghana Academy of Sciences in 1963 the functions of NRC were still looked after. Later in 1966 the new government reconstituted the Academy to form the Council for Scientific and Industrial Research (CSIR) and the Ghana Academy of Arts and Sciences. CSIR became the central agency for promoting and co-ordinating S&T research and advising government on the formulation, planning and implementation of S&T policy in the country. CSIR along with the government industrial concerns and the Ghana standards board were put under the ministry of Industries. The main functions of CSIR were:

- to advise the government on S&T for development
- to encourage scientific and industrial research
to co-ordinate research in all aspects
to establish research institutes and projects and exercise control over all research institutes, units and projects.
to co-operate and laise with national and international agencies on matters of research;
to undertake the collection, publication and dissemination of the results of research and related matters.

CSIR was made up of members from the government, the academy, research institutes, atomic & energy commission, relevant ministries, council for higher education and the standard board. There were several technical committees which service the general activities of the council. Later the Technology Transfer Centre which was formed in 1981 and assigned to work closely with the committee on technology transfer agreements of the Ghana Investments Board. Their functions were:

identification of technical needs, providing information on alternative sources of technology, evaluation and selection of suitable technologies, unpackaging of imported technology including assessing its suitability, direct and indirect costs and conditions, advise on technological negotiations, creating the basis for growth and development of indigenous technology linked to national design, engineering and R&D efforts, promoting the diffusion and assimilation of innovative technology among potential users.

The Ghana Investment Centre was set up to approve and keep records of all technology transfer agreements relating to investments under the Ghana investments code and also make regulations regarding the criteria for approval, technology payments, duration of agreements, restrictive business practices, the transfer and absorption of technology and the monitoring of technology transfer agreements.

This set up puts Ghana at an advanced stage as opposed to the others in the development of an S&T policy making machinery.

4.3.3 Sierra Leone

Creating a body for formulating S&T policy in the country has been in a stage of conception for a long time now. Several bodies both local and
International since 1974 have suggest ways of putting the ideainto reality but it has not yet being done. An interim council of S&T was formed by the ministry of Economic Development and Planning, who are also responsible for co-ordinating all S&T activities at the moment. The interim council which is made up of government officials, representatives from the university, industries, and the private sector has submitted a paper to the government for ratification. At present the government allocates some limited amount to the interim council on its budget. Most of S&T research is carried out in the university that has formed a co-ordinating network for such activities. The need for co-ordinating S&T activities in the country is very important because they are many and unco-ordinated.

4.3.4 Liberia

The government has made several statements in various documents including the last development plan in which the desire was expressed of setting up such a body but the government has still not set up one. They planned to have a National Research and Scientific Council with similar objectives as CSIR in Ghana but nothing has yet been done. The universities do carry out limited research in agriculture and engineering but such activities but very little impact on the society.

4.3.5 Nigeria

The setting up of the Nigerian Council for Scientific and Industrial Research in 1966 started S&T policy activities in the country. Its main function of managing all S&T activities within the country. Unfortunatly the civil war between 1966-70 prevented the council from performing effectively though they developed a three tier system in S&T management, policy formulation, co-ordination and execution. In 1970, the Nigerian Council for Science and Technology (NCST) was formed charged with the responsibility to advising and coordinating all government activities in S&T. NCST had four sectorial councils; agriculture, medicine, industry and natural sciences with responsible for activities in its discipline. In 1977 the National Science and Technology Development Agency (NSTDA) was formed to under take both executive and co-ordinating functions and their specific functions were:

- S&T policy formulation, implementation and monitoring of its programmes;
- promotion and co-ordination of S&T activities;
- supervision, funding and control of research institutes;

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promotion and administration of foreign technology transfer;

mobilization and strengthening of national S&T capabilities.

In 1979, NSTDA was upgraded into a ministry of Science and Technology which had several bodies and with links to all the research institutes, the universities, consultants and institutions performing S&T services. Though this system exist there is need for stronger linkage between the various institutions.

4.4 SCIENCE AND TECHNOLOGY POLICIES AND STRATEGIES

Due to the differences between the countries they will be discussed in two groups, Ghana and Nigeria together and the rest the other. The first has sections devoted specifically to S&T in their national development while the other group have several statements stating broad guidelines on areas as, agriculture and industrial development. Nigeria only started including S&T in their plans in 1980 while Ghana started from the onset of independence. Even though these countries do have S&T policies they are yet to exhibit the desired impact the society because in most cases attention has not been given to the policy instruments which makes a policy operational. For a policy to be operative and effective, apart from commitment from the government there are certain components that must be considered, these are:

- policy statement, a statement clearly specifying the objective of the policy;

- organisational structure, a system describing the various organisational mechanisms necessary to implement the policy and specifying the linkages between them;

- institutional framework, identifying all institutions that are to be involved and those that do not exist could be created or have an existing institution to carry out the required function;

- legal framework, the laws needed for the policy to be implemented should be identified and if existing laws do not cover what is required, then facility should be made to have one created.

It can be seen from the above that in most plans only the policy statements are usually taken care of and the others not considered. After going through the above steps to ensure that all the facilities are
existing then certain functions should also be taken care of within the government machinery. These are:

- planning and budgeting, long term objectives which decides options and results, and short term ones with tangible directives including budget allocation and share of R&D in national programmes;
- co-ordinating, ensuring coherence and consistency among various activities taken by the different institutions;
- management and promotion, execution of the programme and optimization of resources and efficiency of execution;
- execution, practical implementation of the programme;
- policy advise, advise on crucial issues in preparation of the plan especially regarding national security;
- advocacy, organised support for the development of S&T activities.

Though policies do not exist in most of these countries but few comments will be made concerning their present situation.

In the Gambia, there is no long term policy on S&T but there are short policies on sectorial areas that are related to S&T development such as the intention by the government to form national committee on S&T and policies on agricultural and rural development.

In the development plan of Ghana, 1975/76-79/80, a whole chapter was devoted to S&T and the main features are:

- emphasising on CSIR as the statutory body for co-ordinating S&T and advising government on such matters;
- commissioning analytical studies to define support needed for S&T;
- affirming government support for both basic and applied research in S&T;
- requesting for innovative technologies and explaining their need;
- emphasising the potential contribution and support of S&T to food production, storage, preservation and processing. Other priority areas include agro-based industries, forestry, mining, transport.
and communication and manufacturing industries.

Most of the programmes in the plan were not implemented because of the political and economic problems of the late 1970s. In the development plan of (1980/81-85/86) which was not implemented due to change of government had a chapter on S&T. The present ERP under the military government gave S&T a prominent position in their programme.

Sierra Leone do not have a policy on S&T but have sectorial policies in several areas that are related to S&T activities including agricultural, mining and industrial. There are several R&D projects in the university on S&T but poor linkages with the relevant implementing agencies made these have very little impact on the society.

The situation in Liberia is not different from the Gambia, there is no S&T policy in the country. There are sectorial ministries with policies on S&T related activities and the universities have R&D activities on S&T.

The creation of the ministry of science and technology in Nigeria has helped and now the government allocate special vote for S&T development annually. The existence of this ministry which is responsible for all S&T activities has significantly assisted the linkage with the relevant institutions because the research institutes, universities that carry out S&T activities, the national office of industrial property which is responsible for registration and vetting of all technology agreements are now all under the control of the ministry. This has improved co-ordination and the chances of getting R&D results be implemented. The main objectives of the current S&T policy are:

- drastic cut in import bill of food items and raw materials. The policy aim at self-sufficiency in food production and internal generation of raw materials;

- increasing the quality and quantity of personnel in S&T by adopting 60:40 ratio for intake into the universities in favour of science and strengthened the training at polytechnics and colleges that are involved in the training middle level manpower in S&T.

4.5 HUMAN RESOURCES

Lack of adequately trained manpower especially in S&T is a thorny problem in the region, a major cause has been historical, the attitude by
the colonial authorities then towards S&T development during this period. The countries are trying to change the situation as was discussed in the third chapter. Their efforts are manifested by them having S&T as faculties in their university or as a separate university. There are severe problems in S&T development due to either misplacement of little available or inadequacy, these include, imbalance between science planners and real operators, lack of data and unreliability of the ones available, internal and external brain drain. As shown in Table 4.1, data on human resources in these countries is very scanty this call for urgent attention inorder to make the task of planning easier. Apart from the general problems these countries do have specific problems which are mentioned briefly below.

The absence of high level training in the Gambia make them very vulnerable to external brain drain and the limitations of there economy do not help the situation either.

Ghana trained large numbers of personnel in S&T in the 60s and 70s and had an entire university, Kumasi Institute for Science and Technology. Due to the economic problems of the 1970s and early 80s made large numbers left the country and though some are returning but a good number are still outside.

Sierra Leone has large numbers of trained manpower but the problem has been to retain them because of the economic problems most of the trained personnel leave the country.

In Liberia, students are more attracted to choose business studies rather than S&T because presently, the commercial sector seems lucrative. There is therefore serious shortages of required manpower in S&T.

Nigeria as at present has large capacity for training S&T personnel at all levels their problem is to co-ordinate these activities so that their resources can be used efficiently.

4.6 FUNDING OF SCIENCE AND TECHNOLOGY

Though these countries would like to take S&T activities very seriously but the present economic situation forces them to put more emphasis on the more productive sectors of the economy because of the need for survival strategies. Despite these problems some allocation is devoted to research but it is also difficult to indentify the amount because such allocation are made to several ministries. Generally there are two main sources of funding S&T activities in these countries, a) from government sources through budget or extra-budgetary expenditure or b)from international agencies or foreign
countries through loans, grants, fellowship or specific projects. The area that receive the least attention is R&D, according to (10) Ghana spends only 0.9% of its GNP on R&D and Nigeria 0.3% in 1980, despite the lack of data but it is safe to assume that none is spending above 1%. The reliance on foreign input in this area is very significant especially in Gambia, Sierra Leone and Liberia. This is not very reliable as in the case of Ghana, during their economic problems all foreign assistance disappeared. Another problem in funding is to retrieve money allocated for R&D in central government budget due to beaurocratic channels.
CHAPTER 5

COMMUNICATIONS AND CULTURE

5.1 INTRODUCTION

Communications and culture are the sectors mostly affected by policies of colonization in the countries that are discussed. This has resulted in these countries having a society based on dualism, an urban area that has a culture similar to that of the colonial authorities and communication limited to within the area, and a rural area with a culture of the country and have traditional system of communications limited to their immediate environment, hardly any link between the two. Unfortunately after independence no attempt was made to merge the two areas, all the efforts were to develop the urban area and expect gains from that to the rural areas especially in the communications sector. The results so far have been extremely poor because these countries do not only lack the money and facilities to maintain the imported systems but these systems have ignored the interests of vast majority of the population. Also the respective governments did not give the culture the due attention for a long time after independence until the development of national dance troupes. The success of these troupes in international competitions promoted local interest in the culture and recognition by the government. Development in culture has been limited to changing names, recognition of national costumes in official functions, use and development of local languages and music and the introduction of local culture in the communication system. Very little has been done in the use of culture in the productive sectors of the economy such as developing local systems of production and upgrading traditional law and customs. Due to this neglect, gains from areas they have improved fail to have its full impact. Local costumes are still made out of imported materials using imported equipments, the laws of these countries are still that of their colonial authorities and very limited changes.

The wide and varied nature of these sectors demands to be defined as they will be treated in the study. Communications is defined as the transmission and sharing of ideas, facts and data between individuals, groups or society. This means that telecommunications and transport are not included in the study. Culture is defined as the beliefs and traditions,
values, attitudes and general behaviour between individuals, groups or society. These definitions provide the background of the discussion in this chapter.

The discussion will carried out mostly at comparing the various countries but the sectors will be treated separately in. The role of these sectors in the overall development of these states will be looked at before discussing the policies and strategies that were adopted by them during the period under review. A brief discussion on the existing systems in these countries preceedes the discussion on policies and strategies.

5.2 COMMUNICATIONS AND CULTURE AND DEVELOPMENT STRATEGIES

In most government documents in these countries pertaining to strategies of development, it is stated that the development of these sectors is very important to the overall development of the country. Unfortunately very little has been done to translate these statements into reality in terms of funding and building the neccessary infrastructure in these sectors. However within the past decade or so, efforts have been made to reverse the situation. These efforts put these countries into two categories, Nigeria and Ghana in one, that they have reasonable success especially the former, and Gambia, Sierra Leone and Liberia that have not progressed as the previous ones but with slight difference between them. Though the countries will be discussed as the groups outlined above but the sectors will be done separately because of difference in their level of development.

5.2.1 Communications and Development Strategies

Communications as defined in this report is usually reffered in the sectorial division in government ministries as information and broadcasting. In general as a ministry of information and broadcasting they suffer from two major problems in government despite this ministry co-ordinates all activities in the sector and defend its interests at executive level. These problems are that of status and the other is funding, both have to do with the economic situation of these countries. Since this ministry is not one of those that are regarded as directly productive and the emphasis within the goverment is on the economy, it considered as service ministry and is given a lover status in the cabinet. Also in terms of funding they hardly show up in development budgets, only in the recurrent budget, hence their capacity for development is always restrictive. The positive aspect in this sector is that all these governments inherited an information system consisting of at least a radio station and a daily or weekly newspaper. Most
of their efforts has been to build on this infrastructure using the models of the developed countries. Despite there are some advantages in this model they have all made significant expansion in the system in the system they inherited but a lot more is needed to be done to make the system an important instrument in the development process.

The first group of countries, Ghana and Nigeria has made substantial improvements in expanding their facilities from the stage they were when they got independence. With Nigeria showing the edge they have developed a system of newspapers as can be seen from table 5.2 though more recently this industry has been going through a lot of problems as will be discussed later in the report. Broadcasting have a more dramatic expansion, substantial increase in the number of radio stations and inclusion of television with colored vision. The other striking aspect in this area is that they have developed both the radio and television for transmitting nationally and going beyond to the sub-region. It is indeed unfortunate that efforts have reduced in the sector due to the economic situation.

The next group of countries have not achieved as much but have also expanded their systems. They too have daily newspapers that are changing in number from year to year and have a fairly developed radio and television system, with Liberia showing an edge in radio and television over the others especially in the radio system.

5.2.2 Culture and Development Strategies

Culture has not being as lucky as Communications, in that this sector have recieved very little attention from the government either in terms of recognition or funding. None of these countries do have a ministry of Culture but have it added to an existing conventional ministry that is pre-occupied with their usual activities and never considered culture as part of their duties. Another disadvantage has been lack of funding either for recurrent or for development expenditures, in most cases funds allocated are just to pay the assigned personnel with very little to carry out programmes. These countries have cultural organisations but the overall picture puts culture a second position in development.

Though this general picture, there some improvements in some of the countries especially the first group, Nigeria has developed their culture to some extent especially after the hosting of the FESTAC in the mid 1970s. They now have several radio and television programmes in the national languages, several cultural groups etc..Ghana too have some gains in this area though not as much as in Nigeria. The other countries have made gains in few areas more so in having radio and television programmes in national
languages and cultural groups, with Sierra Leone having an edge.

5.3 COMMUNICATIONS AND CULTURAL SYSTEM

As mentioned earlier, there was a communication system in these countries to build on while in the cultural sector no such system was in existence only various traditional groups in the rural areas and they have very little to do with the government. The situation has changed in these sectors but there is a lot of room for improvement. The sectors will be discussed separately because of the difference between them.

5.3.1 Communication System

The communication system in these countries operates at different levels, the government, the public and the private levels. The government level is made up of the ministry of information and broadcasting, the name might change among the countries. Its function are to co-ordinate all mass media activities and act as a liaison between the press at large and the government. Hence it is the executive body for press activities. The ministry is headed by a minister and is normally divided into two professional sections, one responsible for broadcasting and television and the other for collecting and disseminating information of the government, mostly through a sub unit, the national news agency. The broadcasting and television are mostly government owned, there are a few public ones in the Gambia, Liberia and Nigeria as can be seen in table 5.3. The facility of private broadcasting and television which are taken for granted in developed countries is not present here because such facility is mostly supported by private companies through advertisement. We can see from table 5.4 that in Ghana and Nigeria that has the most developed network, advertisements account for less than 3% of operating time. This table also show that significant period of time is spent on government controlled information. The rationale given by these governments when they were expanding their mass media services that it will be mainly for educational purposes was only applied to Ghana to some extent, Nigeria only spend under 4%. At the public level, there are news agency and other organisations that publish books, newsletters, pamphlets etc., these provides a good medium for exchange. Within the public level are also libraries which are usually of three types, the public, national and institutional or school libraries. In few cases there are special ones relating to particular professions. The national and public ones suffer severely from inadequate funds especially that most of the books are imported and local production is very weak.
At the private level, several newspapers in the form of dailies, weeklies and monthly magazines form most of the activities in the system. This area has suffered the most from the economic problems and government intervention, and the result has been that the number of such operations undulate from year to year. Unfortunately the quality has dropped due to constant difficulty with the government which has drive away good brains from this industry, hence they end up recruiting from people of lesser quality.

Ghana and Nigeria have training programmes in their universities for mass media and communications but the others are yet to have one. They depend to a large extent to train their manpower in foreign countries in the north.

The present situation of the daily newspaper in these countries needs a few comments mainly as a result of the policies that will be outlined in the next section. These newspaper have come to be characterised by the following:

- slanted presentation of political news or done with so much delicacy that the news become uninteresting;
- significant drop in quality in both content and presentation;
- lack of good personnel.

It is unfortunate that due to these response of the public has caused significant drop in sales, people have shifted their interest to only sports and leisure news in the paper. They are of the opinion that if you listen to the local radio there is no need to buy newspaper because it is only a repetition, they now rely on external broadcasting and newspapers for the political news in the country. This situation is sad because the industry is severely affected by the economic austerity going on in these countries presently. This has made the prices of their inputs are far above what they can afford, income from advertisments is reducing as well due to contraction in business. This situation will reduce the reading public and the debate society which can only negate development.

5.3.2 Cultural System

The cultural system is poorly represented at the government because none of these countries have a separate ministry of culture, only as an addage to an existing one. There are national cultural groups that recieve support from their governments but not enough to allow them to develop and their commercial potential are not fully exploited. Nigeria has made some effort to
increase governments interest in cultural development and substantial input was devoted to the production of programmes in the radio and television that depict the culture of the country. There has been some efforts by Ghana as well but not significant. At the public and private levels there are several cultural groups that produce entertainment programmes in the form of plays, dances etc., the educational institutions do a lot in this area. There are museums in all of these countries, mostly national that are in the process of being developed to give more information of culture especially on the science and technological achievements of the ancient Africans. There are cinema halls that end up showing films from USA or Hongkong as hardly any film is produced in these countries, they act more as a destructive organ to the culture than enhancing it.

Nigeria at the moment has at least three newspaper written in local languages and this assist a great way in improving communication in cultural activities. All these countries have printing facilities that are used to produce literature in local languages used for various purposes, this helps significantly to improve cultural awareness in the respective countries. The aspect that is very developed is the study of local languages in universities, Ghana and Nigeria has developed this area to all levels in the university system. Sierra Leone has a relatively younger programme in this area. Also all these countries have functional literacy programmes that are conducted in local languages, though some of the countries have more developed programmes than others, Ghana, Sierra Leone and Gambia are in a better position than the others in this area.

5.4 POLICIES AND STRATEGIES IN COMMUNICATIONS AND CULTURE

In terms of policies and strategies, communications have received more attention from the government than culture. It is clearly stated in all the constitutions of these countries that the government provides the right to all individual to express their opinion without interference and to seek, receive and impart information and ideas through any medium regardless of frontiers, though it has been difficult for them to follow. In the case of culture, they have been silent on it apart from few comments by authorities on the use of culture for development. Due to these difference these sectors will be discussed separately.

5.4.1 Policies and Strategies in Communications

The declaration of human rights as stated in the constitution of the countries with modifications forms the basis of their policies in
communications, but events in these countries especially in recent times have made these governments feel very threatened and have made several amendments, modifications and decrees in the case of military rule to this principle and at times certain retrogressive and autocratic measures are introduced. This situation has made the idea of free flow of information or balanced flow of information difficult to be established. Hence most of the policies in recent times have centered on exercising more control over the mass media, measures introduced include censorship, bans on local and international newspaper or magazines, blacklisting of journalists, bureaucratic obstructions, judicial ploys and unchecked physical violence. All these measures do appear in one form or the other in all the countries being studied. These measures are discussed further:

Censorship, the government through the relevant ministry sets up a board that censors the news which go out as official bulletin so as to ensure that information to the public is controlled. In some cases entertainment such as films and plays are included, as in Sierra Leone plays were refused public viewing because it was to critical of the government in 1984;

if certain printed materials are considered to critical of government activities, they are banned by law. Repeated adverse publications of local newspaper can face the same problem. The banning of West Africa in Liberia in 1985 for persistently reporting on repressive policies by the government is an example;

persistent criticisms by journalists even after being warned can be considered as crime against the state and he or she can be banned by law as the decree no. iv in 1984 by the Nigerian government though it was later repealed;

as a deterrent to certain journalists, the government creates certain procedures and fees to stop them from operating. In Sierra Leone and Ghana inorder to establish a newspaper application has to be sent to a committee is the ministry whose decision can be overuled the minister and the journalist must meet with certain qualifications;

during certain cases in court, judicial ploys such as closed hearings, contempt of court, palimentary privileges, etc. are used to control journalists;

the use of physical violence has proved most distructive, because it involves harrasment, detention, kidnapping, murder
and bomb attacks. The attack on the Tablet newspaper in 1980 in Sierra Leone, the letter bomb to the editor of Newswatch in 1986 in Nigeria, the murder of the television reporter in 1985 in Liberia are some examples of such problems.

However, there has been some positive measures during the period under review among which is the expansion of facilities. All the countries has expanded their radio facilities, introduce television networks and strengthened their professional staff and also established local training facilities up to university as in the case of Nigeria and Ghana. Another positive area is the substantial improvement in printing facilities to include book production. Library facilities have slightly improved, though not as much as in the previous areas. Since these countries hardly produced newsprint, there has been legislation in all these countries for import consessions for importing newsprint such as free duty and reduced fees.

5.4.2 Policies and Strategies in Culture

The situation in the cultural sector is different from the last sector discussed because it has recieved far less government attention. There has been a lot of changes which cannot be described as policy driven but evoloved within the society. The only major policy, apart from the cultural policy on education has been the promotion of the culture by supporting national cultural groups, certain public groups, museums and certain shows that depicts the culture. The changes that have been taken place should be commented on as well because they will help to shape future policies in this area. These changes include:

- the expansion of christianity modified to suit the African environment has being growing and by having new converts and from the orthodox religions;

- dramatic changes have been made on dresses, the national custumes are now being used for most official functions and everyday wear;

- names of streets, countries and places of interests have been re-named after great African ancestors. People insisting on having african names in countries that have a lot of European names, Gambia, Sierra Leone and Liberia are the most concerned.

There certain positive policies that has been made which has helped to promote culture in all these countries, some of these policies were discussed in chapter 3, the ones relating to education. An area that has started developing especially in Nigeria is the use of radio and television
in the promotion of culture. More of this type of activity will be in these countries in the future as development progresses in communications.
CHAPTER 6

FUTURE TRENDS AND PROSPECTS FOR EVOLUTION

6.1 INTRODUCTION

It is very difficult to predict the future trends in this sub-region, especially when it only refers to the anglophone countries because apart from the fact that all these countries are going through the same set of problems or most of them, they are all surrounded by francophone countries and will find it difficult to perform effectively in the future without relating to the francophone countries and vice-versa. Therefore the discussion on cooperation will take this aspect very seriously.

The socio-political and economic position of sub-saharan Africa makes them very vulnerable to changes in the global scene and the countries under review cannot be seen in isolation from this region. Hence looking at the future trends demands that trends in the global, regional and national scenes are discussed. The factors that will affect these areas will have to be outside the restricted disciplines of this study, they will be largely economic and demographic in nature with related factors to these disciplines. This is because of the present crisis in the region, strategies based on economic and demographic reasoning are most appealing to the respective authorities. To have a better understanding of the situation, it is best that few comments are made on the general economic conditions of the region.

For the past decade or so, sub-saharan Africa has been in a state of profound economic, social and political crisis, falling rates in food production, increased reliance on food aid, negative industrial growth, growing neglect of the informal sector, scarce foreign exchange earnings due to declining exports so worsening the balance of payments, etc., the result of all these factors these countries end up borrowing externally far above their capacity to repay. As recent experiences have shown, the implications of these problems on the socio-political framework are enormous, therefore they should be given the utmost importance for future analysis.

In discussing the future trends and considering the evolution for
possible cooperation among the countries up to the year 2000, the factors which are global, regional and national that will be briefly included before looking at the future trends in the restricted disciplines of the study.

6.2 FACTORS THAT WILL AFFECT FUTURE TRENDS

As mentioned earlier, the factors are mainly economic in nature and the discussion will be along the lines of global, regional and national factors.

6.2.1 Global Factors

There several factors that will determine the future direction of the world economy, but only the major ones which will have direct relationship to the development of the concern countries will be mentioned. These factors are:

the price of crude oil is moving to a stabilised position because the major consumers are now more prepared than they were in the 70s and also the use of alternatives will be on the increase. Also most countries are constraining their demand and modern technology is getting more energy efficient;

the world market situation is moving towards severe protection by the major operators. The protection is done by regulating outside penetration and subsidized exports to make them competitive. The major operators are only prepared to relax some of the regulations when there are obvious mutual benefits;

the attitude of financial donors for development in developing countries have changed in recent years. It is known that most of the aid go back to were it came from and what remain stays with middle men in the recipient country, hardly any thing eventually get to the target group. The present trend is to give aid to projects that seems very close to the target group and operation oriented, the capacity for self generation of capital is of utmost importance. This trend will continue;

most developing countries in Africa depend on their narrow base of primary exports to the developed region and it is increasingly becoming clear that there is now a saturation of demand for these goods hence their prices will continue to decline. The present policies of promoting exports of primary products by developing countries will do very little to assist their economies.
6.2.2 Regional Factors

Though the above factors will have direct relationships to the future of the region but there are also specific factors of the region which will affect the future of the region. These are;

the most important problem of the region that is related to the world economy is the debt burden crisis. This crisis arose out of excessive external borrowing by countries in the region during the 70s and early 80s. These funds and those from development aid for were used building industries that depend on significant foreign inputs or infrastructural projects, none of which can produce to pay back the loans. The inability to repay has seriously affected the relationship with lending organisations. The current bank interest interest rate, highest since 1945 makes the future more difficult for these countries;

tood crisis, the inability to feed its inhabitants is a very serious problem. As shown earlier the food self-sufficiency these countries enjoyed two decades or more ago has now turned into food dependency. The drought of 1968-73 and that of 1983-86 due to climatic changes has only worsened the situation. The future will depend on the ability to solve these problems especially if there is another drought because at present it is not apparent that steps have been taken to prevent the ills of the problem;

the impact of population growth which have direct relationship with the food crisis will also affect the future trend. Effects of the overall growth can increase the ills of rural poverty, but a more worring problem is the steady rate of migration into urban areas due the deficiencies in the rural areas. This latter problem combined with the taste for foreign food by the urban dwellers and shortage of the local food will only worsen the food crisis;

the attitude of international fuding and lending agencies will have direct impact the future of the region. The attitude of world bank/IMF will have the most impact because all lending agencies link their transction with the relationship the country has with world bank/IMP. The present trend of linking loans or aid with human rights as defined by the donor and emphasis on the private sector can only worsen the situation;
effective machinery for planning and management in all sectors of the economy is vital for the future. Past records show that these countries depend on agencies out of the region help. It is indeed unfortunate that the present socio-economic environment the world is witnessing is new to everyone, therefore locals with inside knowledge can contribute a great deal in such exercises.

6.2.3 National Factors

Though these global and regional factors stated above do have serious effect on the future of these countries, but there also certain general local factors that will have a more direct impact on future as well. These factors are:

policies and the implementation of them to a large extent have largely favoured urban areas as opposed to the rural, this behaviour have contributed to the food crisis. In most of these countries advantages of food price increases have been going to the urban elites instead of the farmer. Also little attempts have been made to introduce modern farming techniques. The result has been overuse and misuse of the land and if urgent attention is not given to these problems, more disasters in the future are eminent;

misuse of the limited trained manpower needs to be checked or these countries will continue to depend on foreign personnel, who in most cases are not in the position to assist due to their limited knowledge. Unless attempts are made to have a manpower survey carried out as discussed in the third chapter and ensuring that relevant local or regional training are fully utilised the future will be bleak;

stricter financial discipline will be required by the authorities in these countries, corruption and nepotism is rampant in these countries, and if the impression is given to the outside world that sufficient internal actions are taken to stop such practices then vital outside assistance will be discouraged.

6.3 FUTURE TRENDS IN THE CONCERNED SECTORS

The general trends in region provides the background to look at the future trends in education, science and technology, communications and culture in the countries under review up to the year 2000. The discussions will centre on the sectors, hence will be done separately but attempt will be made to highlight the country differences as well.
6.3.1 Future Trends in Education

The greatest impact on this sector will be the reduction of public funds to it, the increased funding by government of the 70s and early 80s will not be repeated due to two main factors, the economic situation of the countries and world bank/IMF conditionality. The present trend of crisis management that has occupied the minds of the governments put emphasis on areas with direct production to the economy and education is not considered as such. IMF conditionality calls for reduced government spending and the transfer most of education costs to the recipient. Though it can assist the governments to give serious thoughts to efficiency of the system but it can also affect literacy especially when earning structure of these countries are taken into account.

Another trend will be a continued debate on university education and the training of middle level manpower. The efficiency of the university system will need to be improved in all the countries inorder to survive under the economic situation. Areas that needs attention will be to look at ways making their training more relevant, avoid duplicity, flexibility and diversity in the courses, introduction of control over intake of students and effective planning that is aimed at reducing unit cost of training, which at the moment is the highest in the world. The example by Ghana to have production units within the education system should be pursued because of two advantages, it assist in training the student and also produce the needed equipments at a cheaper price. The innovations of the university of Sierra Leone of co-ordinating research and have commercial units within the system is very useful and should be tried in other countries. Chances of utilizing R&D results will be enhanced and funds will be available for operating the university. The pressure for more facilities for training middle level manpower will increase also with improving their status and rewards in the society.

Secondary schools will move towards introducing more flexibility so that both dropouts and graduates who do not go to the third level education can be usefully employed. The present trend of revising the curriculum will continue and effort to introduce the use of local languages will be tried.

Dropouts at the primary level will continue to be a problem in these countries and the case in Liberia should be further studied for possible introduction by other countries. The existing project on textbooks and introduction of local languages will continue.
6.3.2 Future Trends in Science and Technology

The striking change in this sector is expected to the formation of an effective planning machinery in S&T in all these countries, the experiences of Ghana and Nigeria will prove useful to the others. This will create the situation in which regular budgetary allocations will be made to this sector annually. Results of local R&D will play a more leading role in S&T development in these countries, hence in the overall development. This will assist to make the universities more relevant to their societies especially providing the required personnel. Another aspect can be a new relationship between the informal and formal sectors in S&T. There now a growing realization of the importance of the informal sector by the formal and several studies are carried out. Policies to let this happen can be created and this can lead to a new type of development which is likely to assist greatly in the development of S&T in these countries.

6.3.3 Future Trends in Communications

Due to the development of repressive measures as described in the last chapter, there is now a culture of silence in all of these countries. This refers to a situation when members of the public are not contributing their views and they remove themselves from the development of the country. It is worrying because all these countries need the participation of the people if they want any hope of success including the rural inhabitants. Ways must be found to break this development, it is gratifying to note that in recent statements by governments in Nigeria, Ghana and Sierra Leone have been very vocal about speaking against this trend. It is therefore safe to assume that steps will be taken to improve facilities for debate.

The training of personnel in mass media has been receiving attention recently, Nigeria and Ghana has facilities at present and the tendency will be to strengthened these facilities and further improve the relevance of the curriculum. Gambia, Sierra Leone and Liberia are presently engaged in discussion of having a joint facility in monrovia, though one might tempted to suggest that they use existing facility in the other two countries but the discussion has advanced and it seems certain that they will get the joint school set up soon.

The present trend of introducing more cultural programmes in the radio/TV system will be intensified in the future and exchanges between stations will evolve especially between Nigeria that have developed in this area and the other countries. It is hoped that Liberia, Ghana and Nigeria which have relatively good systems will provide facilities to maintain them and Sierra Leone and the Gambia will do all they can to upgrade their
systems to international standard so communications will improve in these countries.

The present revolution in communications, the use of computer must be fully utilized by these countries, especially word processing facilities which are available in personal computers. Advantages of this system includes; easier and cheaper printing of newsletter, magazines, newspaper, books, etc. The technology for paper production is accessible, especially recycled paper, if these facilities are utilized then communications will improve substantially in these countries.

6.3.4 Future Trends in Culture

Integrating culture into the overall development in these countries will have a bright future if the present trend continues. Significant strides have been made in fashion for both men and woman, names, and recognition and respectability of traditions. The use of local languages in the education sector have improved and current trend indicate greater improvement in the future. The fields of performing and fine arts, and in humanities, traditional culture is playing distinct roles and this trend will continue.

However, the area that require much attention is the development of the traditional law and customs and traditional technologies. If these areas are not given the necessary attention, gains in the areas mentioned above will not be fully realized because these countries will depend on foreign inputs to practise their cultures.

6.4 PROSPECTS FOR CO-OPERATION

Repeating calls for a re-think in development strategies in recent international forums by African leaders since 1985 signals some signs of hope for co-operation among states of the region and that a new realization of the regional problems. The most comfortable aspect in these statements is the realization that the present problems are not necessarily caused by effect of global strategies but local policies and attitudes have also contributed and now in solving them local personnel will have to be fully utilized. It is against this background that the prospects for cooperation are discussed. The existing regional organisations will provide the introductory discussion in this section before looking at possible ways in which co-operation can be achieved in the respective disciplines.
6.4.1 Existing Regional Organisations

Apart from the United Nations and its specialised agencies in which all these countries are members of, there are more than 20 organisations in the continent or region ranging from continental to those with only three members. These organisations have not proved very effective because of many problems among which are the following:

- Due to the proliferation of these bodies, overlapping goals and lack of focus have characterised their activities, there is urgent need to evaluate these organisations and indentify ways of co-ordinating their functions and activities;

- Because of the economic situation of the countries of the region, all these organisations depend on the same sources for their funds, mostly out of the continent. Apart from this situation restricts their freedom in performing their activities it also clear that such funds are drying out;

- The present method of recruiting staff make these organisations prone to mis-management and inefficiency. Competence is being sacrificed for either satisfying a quota system or political interest. Regarding these institutions as a place for national governments to put employees that they could not employ at home for political or economic reasons is not uncommon.

These above problems negate any idea of forming new organisations, therefore in looking at co-peration between these countries, the discussion will be based on strengthened existing agencies.

6.4.2 Co-peration in the Concerned Disciplines

This discussion is carried out realising that for any effective co-peration between these countries the francophone countries must be considered due to the location of the countries. The suggestions will be done according to the disciplines though there are overlaps between some of them. It must be mentioned that, co-peration is vital for the survival of these nations especially for the smaller ones, Gambia, Sierra Leone and Liberia. Suggested areas include the following:

- These countries should co-perate to ensure that all students as from second level should have a workable knowledge of french. To communicate effectively in all disciplines the language of your neighbours is very important. For most of these countries it will
not prove difficult as some basic structure do exist;

in order to solve the dropout rate at the first level of education, the system of Liberia should be studied whereby all students go to junior secondary school level and include technical and commercial skills in the curriculum;

diversification of courses and introduction of more job oriented courses at second level is very important and the case of Ghana need to be studied;

co-operation at university level is very important, areas for such activities include students exchange, staff exchange, official links, etc.;

there should be regular meetings on education in the sub-region on different disciplines in which country papers should be presented on statistics needed for planning;

countries that are at the stage of forming bodies on S&T should learn from the ones that have formed such bodies. There should be regular meetings on S&T on the region and such meetings should serve as a medium of updating S&T knowledge in the region and exhibitions should be made at such meetings;

facilities existing in the more advanced of these countries in communications should be fully utilised for training personnel in the other countries;

mechanisms should be created to ensure the regular exchange of printing materials among the countries and printing facilities available to personnel of other countries;

more cultural shows should be encouraged between these countries and use of culture in other areas will need co-operation from all these countries.

6.5 CONCLUSIONS

Though there are uneveness of data available in the countries discussed, attempt were made in this study to review the development strategies in education, science and technology, communications and culture in the anglophone west African countries. The analysis reveals that there are several areas in which the countries can learn from each other and also
identify their differences as well. Certain suggestions are included which is hoped will be pursued especially through UNESCO's programmes.
<table>
<thead>
<tr>
<th>Country</th>
<th>Popul. (mils)</th>
<th>Area 000km</th>
<th>GNP/capita US $</th>
<th>Life Expect. (yrs)</th>
<th>Adult Liter. %</th>
<th>Infant Mort./1000</th>
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<tbody>
<tr>
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<td>0.7</td>
<td>11</td>
<td>290</td>
<td>36</td>
<td>20.1</td>
<td>200</td>
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<td>Ghana</td>
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<td>239</td>
<td>310</td>
<td>59</td>
<td>N.A</td>
<td>97</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>3.6</td>
<td>72</td>
<td>330</td>
<td>45</td>
<td>15</td>
<td>198</td>
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<tr>
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<td>480</td>
<td>49</td>
<td>25.4</td>
<td>111</td>
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<td>Nigeria</td>
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<td>924</td>
<td>770</td>
<td>49</td>
<td>34.0</td>
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Source: World Bank
<table>
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<tr>
<th></th>
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<tbody>
<tr>
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<td>0.7</td>
<td>1.1</td>
<td>1.8</td>
<td>2.4</td>
<td>3.0</td>
</tr>
<tr>
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<td>4.4</td>
<td>11.5</td>
<td>23.1</td>
<td>39.9</td>
<td>53.4</td>
<td>62.2</td>
</tr>
<tr>
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<td>3.4</td>
<td>5.4</td>
<td>8.9</td>
<td>12.2</td>
<td>15.9</td>
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<tr>
<td>Liberia</td>
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<td>3.5</td>
<td>6.1</td>
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<td>Nigeria</td>
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<td>84.7</td>
<td>162.7</td>
<td>295.7</td>
<td>411.5</td>
<td>508.9</td>
</tr>
</tbody>
</table>

Source: World Bank
### TABLE 2.3 ECONOMIC GROWTH RATES PER CAPITA FOR ANGLOPHONE WEST AFRICAN COUNTRIES (annual average in %)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gambia</td>
<td>3.7</td>
<td>2.0</td>
<td>-2.6</td>
</tr>
<tr>
<td>Ghana</td>
<td>-0.3</td>
<td>-3.5</td>
<td>-5.4</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>2.9</td>
<td>-0.4</td>
<td>-2.0</td>
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<tr>
<td>Liberia</td>
<td>2.7</td>
<td>-1.2</td>
<td>-4.9</td>
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<tr>
<td>Nigeria</td>
<td>1.0</td>
<td>2.6</td>
<td>-6.5</td>
</tr>
</tbody>
</table>

Source: World Bank
## Table 2.4 External Debt and Debt Service of West African Anglophone Countries (Public and Publicly Guaranteed, million US $)

<table>
<thead>
<tr>
<th>Country</th>
<th>Debt outstanding &amp; Disbursed</th>
<th>Amortization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gambia</td>
<td>192.0</td>
<td>97.5</td>
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<tr>
<td>Ghana</td>
<td>1375.3</td>
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</tr>
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<td>Sierra Leone</td>
<td>427.6</td>
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<td>Liberia</td>
<td>904.7</td>
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</tr>
<tr>
<td>Nigeria</td>
<td>11757.1</td>
<td>17.2</td>
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</table>

Source: World Bank & IMF
### TABLE 2.5 BALANCE OF PAYMENT FOR ANGLOPHONE WEST AFRICAN COUNTRIES
(Annual Average in million US $)

<table>
<thead>
<tr>
<th>Country</th>
<th>1970-79</th>
<th>1980-84</th>
<th>1985</th>
<th>% of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1970-79</td>
</tr>
<tr>
<td>Gambia</td>
<td>-15.2</td>
<td>-74.1</td>
<td>-32.5</td>
<td>-1.1</td>
</tr>
<tr>
<td>Ghana</td>
<td>-55.1</td>
<td>-290.8</td>
<td>-490.0</td>
<td>N.A</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>-72.7</td>
<td>-163.0</td>
<td>-57.2</td>
<td>-10.8</td>
</tr>
<tr>
<td>Liberia</td>
<td>-79.7</td>
<td>-160.6</td>
<td>-179.0</td>
<td>-9.8</td>
</tr>
<tr>
<td>Nigeria</td>
<td>33.9</td>
<td>-2841.7</td>
<td>-613.0</td>
<td>-0.04</td>
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</table>

Source: World Bank
### TABLE 2.6 FOOD PRODUCTION AND FOOD IMPORTS FOR ANGLOPHONE WEST AFRICAN COUNTRIES

<table>
<thead>
<tr>
<th>Country</th>
<th>Food Production Growth per capita (%)</th>
<th>Food Imports million US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gambia</td>
<td>0.02</td>
<td>-5.5</td>
</tr>
<tr>
<td>Ghana</td>
<td>0.8</td>
<td>-3.5</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>1.2</td>
<td>-1.9</td>
</tr>
<tr>
<td>Liberia</td>
<td>0.6</td>
<td>-0.5</td>
</tr>
<tr>
<td>Nigeria</td>
<td>0.2</td>
<td>-0.7</td>
</tr>
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</table>

Source: World Bank & FAO
TABLE 2.7 PLANNED PUBLIC INVESTMENT OF THE GAMBIA
(percentage of total)

<table>
<thead>
<tr>
<th>Sector</th>
<th>First Plan</th>
<th>Second Plan</th>
<th>Adjusted Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1974/75-79/80 (actual)</td>
<td>1981/82-83/84 (actual)</td>
<td>1984/85-87/88 (proposed)</td>
</tr>
<tr>
<td>Agric.</td>
<td>17</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>Indus.</td>
<td>1</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Pub. Utl.</td>
<td>12</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Trans.&amp; Comm</td>
<td>44</td>
<td>40</td>
<td>35</td>
</tr>
<tr>
<td>Tourism</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Educat.</td>
<td>9</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Health</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Hous./Admin.</td>
<td>10</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: Gambia Development Plans & Economic Memorandum
TABLE 2.8 PROJECTED AND ACTUAL EXPENDITURE PATTERN IN THE GAMBIA
(1981-85 in million dalais)

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>plan.</td>
<td>act.</td>
<td>plan.</td>
<td>act.</td>
</tr>
<tr>
<td>Agric.&amp; Nat.Res.</td>
<td>13.4</td>
<td>5.7</td>
<td>20.4</td>
<td>17.4</td>
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<tr>
<td>Indust.</td>
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<td>0.1</td>
<td>6.2</td>
<td>6.2</td>
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<tr>
<td>Public</td>
<td>5.9</td>
<td>4.1</td>
<td>7.4</td>
<td>2.3</td>
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<tr>
<td>Utilits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transp.&amp; Comm.</td>
<td>27.3</td>
<td>22.9</td>
<td>18.3</td>
<td>18.3</td>
</tr>
<tr>
<td>Tour.,Tr. &amp; Finance</td>
<td>1.0</td>
<td>3.4</td>
<td>3.1</td>
<td>4.0</td>
</tr>
<tr>
<td>Educ.,Cul. &amp; Sports</td>
<td>22.7</td>
<td>22.7</td>
<td>9.4</td>
<td>9.4</td>
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<tr>
<td>Heal.Lab. &amp; Soc.Wel.</td>
<td>3.3</td>
<td>1.4</td>
<td>1.9</td>
<td>2.4</td>
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<tr>
<td>Com.Dev. &amp; Gen.Serv.</td>
<td>6.1</td>
<td>6.2</td>
<td>2.2</td>
<td>2.2</td>
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<tr>
<td>Unal.Exp.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
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<td>TOTAL</td>
<td>82.3</td>
<td>68.8</td>
<td>73.6</td>
<td>66.5</td>
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</table>

Source: Gambian Authorities & IMF
## TABLE 2.9 PUBLIC EXPENDITURE OF GHANA FOR THE ECONOMIC RECOVERY PROGRAMME (Percentages of total)

<table>
<thead>
<tr>
<th>Sector</th>
<th>ERP 1(1984-86)</th>
<th>ERP 2(1986-88)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agric. &amp; Forest.</td>
<td>17.7</td>
<td>12.4</td>
</tr>
<tr>
<td>Trans. &amp; Comm.</td>
<td>23.4</td>
<td>39.9</td>
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<tr>
<td>Indus. &amp; Min.</td>
<td>17.0</td>
<td>17.0</td>
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<tr>
<td>Energy &amp; Power</td>
<td>33.8</td>
<td>14.3</td>
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<tr>
<td>Health</td>
<td>1.3</td>
<td></td>
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<tr>
<td>Education</td>
<td>2.0</td>
<td>16.3</td>
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<tr>
<td>Constr.</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
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Source: ERP, Ghana
### TABLE 2.10 SELECTED ECONOMIC INDICATORS ILLUSTRATING THE ECONOMIC RECOVERY PROGRAMME (Average annual change in percentages)

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumer Price Index</th>
<th>Consumer Real GDP</th>
<th>Consumer Imports</th>
<th>Consumer Exports</th>
<th>Consumer Total /capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>50.1</td>
<td>1.2</td>
<td>-1.4</td>
<td>3.6</td>
<td>12.5</td>
</tr>
<tr>
<td>1981</td>
<td>1116.5</td>
<td>-3.8</td>
<td>-6.3</td>
<td>-35.6</td>
<td>5.1</td>
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<tr>
<td>1982</td>
<td>22.5</td>
<td>-6.1</td>
<td>-8.5</td>
<td>-9.8</td>
<td>38.2</td>
</tr>
<tr>
<td>1983</td>
<td>121.9</td>
<td>-2.9</td>
<td>-5.4</td>
<td>-31.5</td>
<td>-1.8</td>
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<tr>
<td>1984</td>
<td>40.2</td>
<td>7.6</td>
<td>5.0</td>
<td>28.9</td>
<td>23.2</td>
</tr>
<tr>
<td>1985</td>
<td>20.0</td>
<td>5.3</td>
<td>2.6</td>
<td>7.8</td>
<td>18.0</td>
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(estimate)

Source: Progress of the ERP 1984-86, Policy Framework 1986-88
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<tr>
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<tr>
<td>Agriculture</td>
<td>25.6</td>
<td>25.8</td>
<td>25.7</td>
</tr>
<tr>
<td>Mining</td>
<td>3.8</td>
<td>3.8</td>
<td>12.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>7.2</td>
<td>0.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Elect. &amp; Power</td>
<td>14.2</td>
<td>29.1</td>
<td>12.9</td>
</tr>
<tr>
<td>Trans. &amp; Comm.</td>
<td>21.3</td>
<td>23.5</td>
<td>24.4</td>
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<tr>
<td>Tourism</td>
<td>0.9</td>
<td></td>
<td>0.12</td>
</tr>
<tr>
<td>Education</td>
<td>4.9</td>
<td></td>
<td>11.8</td>
</tr>
<tr>
<td>Health</td>
<td>5.4</td>
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<tr>
<td>Social Welfare</td>
<td>6.9</td>
<td>16.9</td>
<td>1.0</td>
</tr>
<tr>
<td>housing</td>
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<td></td>
<td>0.13</td>
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<tr>
<td>others</td>
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<td></td>
<td>1.43</td>
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<td>TOTAL</td>
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<td>100.0</td>
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### TABLE 2.12 PUBLIC INVESTMENT FOR LIBERIA
(Percentages of Total)

<table>
<thead>
<tr>
<th>Sector</th>
<th>First Plan 1976/77-79/80</th>
<th>Second Plan 1981/82-84/85</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>17.6</td>
<td>32.5</td>
</tr>
<tr>
<td>Industry</td>
<td>4.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Education</td>
<td>9.4</td>
<td>14.3</td>
</tr>
<tr>
<td>Health</td>
<td>2.8</td>
<td>5.5</td>
</tr>
<tr>
<td>Transp. &amp; Comms.</td>
<td>22.8</td>
<td>27.9</td>
</tr>
<tr>
<td>Water &amp; Power</td>
<td>6.3</td>
<td>12.2</td>
</tr>
<tr>
<td>Urban Dev. &amp; Housing</td>
<td>3.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Others</td>
<td>32.8</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
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</tbody>
</table>

Source: Nat. Dev. Plans, Liberia
### TABLE 2.13 FINANCIAL STRUCTURE OF DEVELOPMENT PLANS OF NIGERIA 1962-1985 (billion Naira)

<table>
<thead>
<tr>
<th>Plan Period</th>
<th>Total Value</th>
<th>Public Sector Share</th>
<th>Private Sector Share</th>
<th>% of Private to Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Plan 1962-68</td>
<td>2.366</td>
<td>1.586</td>
<td>0.78</td>
<td>33</td>
</tr>
<tr>
<td>Second Plan 1970-74</td>
<td>3.192</td>
<td>1.560</td>
<td>1.632</td>
<td>51.1</td>
</tr>
<tr>
<td>Third Plan 1975-80</td>
<td>53.3</td>
<td>43.3</td>
<td>10.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Fourth Plan 1981-85</td>
<td>82.0</td>
<td>70.5</td>
<td>11.5</td>
<td>14.0</td>
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</table>

Source: Business Times of Nigeria, May 1985

### TABLE 2.14 OIL REVENUES AS PERCENTAGE OF TOTAL REVENUES OF NIGERIA

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Total Gov. Revenue million Naira</td>
<td>223.6</td>
<td>758.1</td>
<td>5861.5</td>
<td>7070.5</td>
<td>8701.7</td>
<td>7387.3</td>
<td>8805.6</td>
</tr>
<tr>
<td>Oil Revenue as % of Tot.</td>
<td>7.6</td>
<td>25.9</td>
<td>78.7</td>
<td>78.5</td>
<td>78.7</td>
<td>73.4</td>
<td>74.5</td>
</tr>
</tbody>
</table>

TABLE 3.1  GENERAL EDUCATION DATA FOR GAMBIA, 1975-84

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
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<tbody>
<tr>
<td><strong>First Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration (yrs)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Age Range</td>
<td>8-13</td>
<td>8-13</td>
<td>8-13</td>
<td>8-13</td>
</tr>
<tr>
<td>Gross Enrol. Rat.%</td>
<td>33</td>
<td>52</td>
<td>68</td>
<td>73</td>
</tr>
<tr>
<td>Pupils Enrol. No</td>
<td>24617</td>
<td>43432</td>
<td>60529</td>
<td>66257</td>
</tr>
<tr>
<td>Teach. Staff No</td>
<td>948</td>
<td>1808</td>
<td>2439</td>
<td>2640</td>
</tr>
<tr>
<td>Pupil Reapts. %</td>
<td>10</td>
<td>13</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Pupil/Teach. Rat.</td>
<td>26</td>
<td>24</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td><strong>Second Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration (yrs)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Age Range</td>
<td>14-19</td>
<td>14-19</td>
<td>14-19</td>
<td>14-19</td>
</tr>
<tr>
<td>Gross Enrol. Rat.%</td>
<td>10</td>
<td>13</td>
<td>19</td>
<td>21</td>
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<tr>
<td>Pupils Enrol. No</td>
<td>6618</td>
<td>9657</td>
<td>14430</td>
<td>15939</td>
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<td>Teach. Staff No</td>
<td>347</td>
<td>620</td>
<td>829</td>
<td>959</td>
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<tr>
<td>Pupil Reapts %</td>
<td>1</td>
<td>2</td>
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Source: Unesco Statistical Digest, 1986
### TABLE 3.2 GENERAL EDUCATION DATA FOR GHANA, 1975-84

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<tbody>
<tr>
<td>Before First Level</td>
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<tr>
<td>Pupils Enrol. No</td>
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<td>N.A</td>
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<td>First Level</td>
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<td>Duration (yrs)</td>
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<td>6</td>
<td>6</td>
<td>6</td>
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<td>6-11</td>
<td>6-11</td>
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<td>Gross Enrol. Rat. %</td>
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<td>67</td>
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<td>30</td>
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<td>12-18</td>
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<td>Gross Enrol. Rat. %</td>
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<td>Studs/100000 Hrs</td>
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Source: Unesco Statistical Digest, 1986
<table>
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<tbody>
<tr>
<td><strong>First Level</strong></td>
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<tr>
<td>Duration (yrs)</td>
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<tr>
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<td>5-11</td>
<td>5-11</td>
<td>5-11</td>
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<tr>
<td>Gross Enrol. rat%</td>
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<td>54</td>
<td>58</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Pupil/Teach Rat.</td>
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<td>33</td>
<td>34</td>
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<tr>
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<td></td>
<td></td>
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<tr>
<td>Duration (yrs)</td>
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<td>7</td>
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<td>2985</td>
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Source: Unesco Statistical Digest, 1986
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<td>6</td>
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<tr>
<td>Age Range</td>
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<td>62</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Duration (yrs)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Age Range</td>
<td>12-17</td>
<td>12-17</td>
<td>12-17</td>
<td>12-17</td>
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<td>Teach. Staff</td>
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<td>Pupils Reapt.</td>
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<td></td>
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<tr>
<td><strong>Third Level</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Studs./10000 inhs</td>
<td>152</td>
<td>203</td>
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<td>Studs. Enrol.</td>
<td>2404</td>
<td>3789</td>
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<tr>
<td>Teach. Staff</td>
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Source: Unesco Statistical Digest, 1986
TABLE 3.5 GENERAL EDUCATION DATA FOR NIGERIA, 1975-84

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<tr>
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<tbody>
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<td><strong>First Level</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Duration(yrs)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
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<tr>
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<td>6-11</td>
<td>6-11</td>
<td>6-11</td>
<td>6-11</td>
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<td>Gross Enrol.Rat%</td>
<td>51</td>
<td>97</td>
<td>92</td>
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<tr>
<td>Pupil Enrol.</td>
<td>5950296</td>
<td>13760030</td>
<td>14383487</td>
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<tr>
<td>Teach.Staff</td>
<td>-</td>
<td>369636</td>
<td>359701</td>
<td>-</td>
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<td>Pupils Reapt.</td>
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<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pupil/Teach Rat.</td>
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<td>37</td>
<td>-</td>
<td>-</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Duration(yrs)</td>
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<td>7</td>
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<td>7</td>
</tr>
<tr>
<td>Age Range</td>
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<td>12-18</td>
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<td>Gross Enrol.Rat%</td>
<td>8</td>
<td>19</td>
<td>29</td>
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<tr>
<td>Pupils Enrol.</td>
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<td>2345604</td>
<td>3561207</td>
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<td>Teach.Staff</td>
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<td>81492</td>
<td>98487</td>
<td>-</td>
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<tr>
<td>Pupils Reapt</td>
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<td>-</td>
<td>-</td>
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<tr>
<td><strong>Third Level</strong></td>
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<tr>
<td>Studs/100000inhs</td>
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<td>186</td>
<td>204</td>
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<td>44964</td>
<td>150072</td>
<td>181945</td>
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<td>Teach.Staff</td>
<td>-</td>
<td>10742</td>
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<td>-</td>
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</table>

Source: Unesco Statistical Digest, 1986
TABLE 3.6 AVERAGE ANNUAL GROWTH RATES FOR THE DIFFERENT LEVELS OF EDUCATION FOR THE ANGLOPHONE WEST AFRICAN COUNTRIES (1975-83)

<table>
<thead>
<tr>
<th>Data</th>
<th>Growth Rates (%)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Gambia</td>
</tr>
<tr>
<td>First Level</td>
<td></td>
</tr>
<tr>
<td>No. of Schools</td>
<td>6.6</td>
</tr>
<tr>
<td>Enrolment</td>
<td>11.7</td>
</tr>
<tr>
<td>Teach. Staff</td>
<td>12.2</td>
</tr>
<tr>
<td>Second Level</td>
<td></td>
</tr>
<tr>
<td>Enrolment</td>
<td>9.8</td>
</tr>
<tr>
<td>Teach. Staff</td>
<td>9.8</td>
</tr>
<tr>
<td>Teacher Training Enrolment</td>
<td>2.5</td>
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<tr>
<td>Vocational Train. Enrolment</td>
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</tr>
<tr>
<td>University Train. Enrolment</td>
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Source: BREDA-STAT, Unesco, 1986
TABLE 4.1 HUMAN RESOURCES DATA ON SCIENCE AND TECHNOLOGY IN ANGLOPHONE WEST AFRICAN COUNTRIES (1975-84)

<table>
<thead>
<tr>
<th>Data</th>
<th>Gambia</th>
<th>Ghana</th>
<th>S/Leone</th>
<th>Liberia</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>897</td>
<td>801</td>
<td>-</td>
<td>-</td>
<td>353</td>
</tr>
<tr>
<td>1975-84</td>
<td>-</td>
<td>1752</td>
<td>-</td>
<td>-</td>
<td>270</td>
</tr>
<tr>
<td>1980</td>
<td>-</td>
<td>394</td>
<td>396</td>
<td>-</td>
<td>37</td>
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<td>-</td>
<td>-</td>
<td>554</td>
<td>556</td>
<td>-</td>
<td>19</td>
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Source: Unesco Statistical Digest, 1986

TABLE 4.2 SCIENCE AND TECHNOLOGICAL MANPOWER IN GHANA, (1965-85)

<table>
<thead>
<tr>
<th>Year</th>
<th>Scientists &amp; Engineers</th>
<th>Technicians</th>
</tr>
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<tbody>
<tr>
<td>1965</td>
<td>4074</td>
<td>10111</td>
</tr>
<tr>
<td>1970</td>
<td>5433</td>
<td>13483</td>
</tr>
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<td>1975</td>
<td>8002</td>
<td>21739</td>
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<tr>
<td>1980</td>
<td>8589</td>
<td>22740</td>
</tr>
<tr>
<td>1985</td>
<td>10346</td>
<td>27175</td>
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Source: Manpower Directory in Ghana, CSIR 1976, 1977
Assessment of Manpower in Ghana, 1984
Current Manpower Stats in Ghana, 1985
TABLE 5.1 NUMBER OF LIBRARIES IN THE ANGLOPHONE WEST AFRICAN COUNTRIES

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Category</th>
<th>No.of Libraries</th>
<th>No.of Volumes</th>
<th>Registered Borrowers</th>
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<tr>
<td>Gambia</td>
<td>1983</td>
<td>National</td>
<td>1</td>
<td>220</td>
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<td></td>
<td>1983</td>
<td>Public</td>
<td>1</td>
<td>-</td>
<td>7946</td>
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<td></td>
<td>1978</td>
<td>School</td>
<td>129</td>
<td>700</td>
<td>500</td>
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<tr>
<td></td>
<td>1978</td>
<td>Special</td>
<td>17</td>
<td>1120</td>
<td>500</td>
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<td>1983</td>
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<td>9</td>
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<td>54514</td>
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<td>Liberia</td>
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<td>High.Educ.</td>
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<td></td>
<td>1979</td>
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Source: Unesco Statistics Yearbook, 1986

TABLE 5.2 DAILY GENERAL-INTEREST NEWSPAPERS IN THE ANGLOPHONE COUNTRIES

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<td>4</td>
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<td>S/Leone</td>
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<td>1</td>
</tr>
<tr>
<td>Liberia</td>
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<td>3</td>
<td>3</td>
<td>3</td>
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<td>Nigeria</td>
<td>21</td>
<td>12</td>
<td>15</td>
<td>14</td>
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Source: Unesco Statistical Yearbook, 1986
### TABLE 5.3 RADIO/BROADCASTING STATIONS IN ANGLOPHONE WEST AFRICAN COUNTRIES

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Ownership</th>
<th>No. of Transmitters</th>
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<td>Gambia</td>
<td>1979</td>
<td>Total</td>
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<td></td>
<td></td>
<td>Govt.</td>
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<tr>
<td></td>
<td></td>
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<td>1</td>
</tr>
<tr>
<td>Ghana</td>
<td>1981</td>
<td>Govt.</td>
<td>4</td>
</tr>
<tr>
<td>S/Leone</td>
<td>1982</td>
<td>Govt.</td>
<td>1</td>
</tr>
<tr>
<td>Liberia</td>
<td>1978</td>
<td>Total</td>
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<td></td>
<td></td>
<td>Govt.</td>
<td>1</td>
</tr>
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<td>Nigeria</td>
<td>1978</td>
<td>Total</td>
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<td>Govt.</td>
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Source: Unesco Statistical Yearbook, 1986

### TABLE 5.4 TYPE OF PROGRAMMES IN TELEVISION/BROADCASTING IN GHANA & NIGERIA

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<tbody>
<tr>
<td></td>
<td>Govt.</td>
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<td>Cultural</td>
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<td>Religious</td>
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<td>-</td>
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<td>Others</td>
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<td>-</td>
</tr>
</tbody>
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Source: Unesco Statistical Yearbook, 1986

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CITED-REFERENCES

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