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# REPORT

# OF

# THE NATIONAL COMMITTEE

# ON

# EDUCATIONAL OBJECTIVES AND POLICIES

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# REPORT

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## PREFACE

We the undersigned were set up by the Government of Kenya in December, 1975, as the National Committee on Educational Objectives and Policies (hereinafter referred to as the Committee or NCEOP) under the chairmanship of Mr. P. J. Gachathi, the Permanent Secretary in the Ministry of Education. The authority for setting up the Committee was conveyed to the Chairman in the letter sent to him by the Permanent Secretary in the Office of the President and attached to this document as Annexure 1. This Government authority was further elaborated on in an address given by the Chairman to the Committee at the beginning of our work and attached to this document as Annexure 2.

The Chairman convened the first meeting of the Committee on 9th December, 1975, in the Conference Room of New Jogoo House to brief the members. He outlined the goals that the Committee was expected to achieve, namely to evaluate the present system of education, define a new set of educational goals for the second decade of independence and formulate a specific programme of action for achieving those goals. The Committee was also issued with the terms of reference that were to guide its work. These are attached to this document as Annexure 3. The Chairman also pointed out that the Committee was expected to prepare and submit a report by 30th June, 1976, to form a basis for preparing a sessional paper and policy statement on education by the Government.

Between December, 1975 and October, 1976, the Committee held 20 business meetings, 15 of them in Nairobi and 5 in Kericho. The Committee held a six-day seminar at Kericho between 23rd February and 28th February, 1976, at which some 40 major papers were presented by some Committee members, Senior Government Officers and representatives of private organizations and local authorities.

The Committee held extensive interviews in all the provinces, including Nairobi, between April and June, 1976. These took a total of 24 full working days during which over 160 papers were presented by delegations.

The Committee did its critical work through its three sub-committees, namely the Steering Committee, the 5 Task Forces, the Convenors and Drafting Committees. These sub-committees held a total of some 111 working meetings, 85 of which were held by the Task Forces.

The Committee was set up in place of the National Commission on Educational Objectives and Policies which had originally been planned to do the review work over a period of eighteen months as described in the 1974

to 1978 Development Plan. Although our terms of reference remained the same as those of the original Commission, our programme of work was condensed to a shorter period. We subsequently needed much more time to complete the job of analysing and synthesizing the large amount of data collected throughout the country and a four months' extension to 31st October, 1976, was granted and extra funds provided for it. A further extension to 31st December, 1976, was granted for writing up the report.

It was clear to us from the beginning that although we were set up under the Ministry of Education, our work was interministerial in nature in view of the wide variety of training programmes which are run by or under the aegis of other ministries. It was also made clear to us by the Government and the public that the results of our deliberations were expected to have far-reaching effects on the objectives, structure and content of the education system and that we were therefore expected to provide the Government with the framework for introducing these far-reaching changes. The Government therefore generously undertook to support our work fully by providing a full range of technical and professional experience drawn from local and foreign resources. We are very grateful to the consultants and to the persons who provided us with background papers for all our deliberations. We are also very grateful to members of the public who provided us with extremely valuable memoranda during the interviews that were carried out in various parts of the country. The Government also provided staff, office and technical facilities in Pan Africa House which facilitated our work enormously. We are therefore particularly indebted to the Government and to all the staff of the Secretariat whose tireless contributions made our work possible. Without these contributions it would not have been possible to meet the deadlines that we had to meet in this national undertaking. The list of consultants, persons from whom papers were solicited, individuals and organizations from whom memoranda were received, and the supporting staff of the Secretariat is attached to this report as Annexure 4.

Our specific tasks were largely those which had been detailed for the National Commission on Educational Objectives and Policies in the 1974 to 1978 Development Plan in the chapter on education and training. But one of the most significant features of this task definition was the total omission of its mention in any of the education and training sections of other Government departments. We were made to understand that the reason for this was that the planning of the Committee was done primarily by the Ministries of Education and Finance and Planning in collaboration with the World Bank but without co-ordination with other Government Ministries and departments. This was primarily because at that time the main concern was the rapidly increasing cost of the system of formal education and the rapidly rising level of unemployment among school-leavers. This concern was not of immediate application to other Government departments whose training activities are usually related to available job opportunities.

It was nevertheless evident to us that no educational reform would be complete without going into all the potential and actual activities that constitute the totality of national education and training. This indicated that we were also expected to review all the education and training activities that are conducted by other Government departments. This implied that the inter-departmental nature of our work was to be one of the most important approaches to long-term educational planning aimed at achieving increasingly more efficient pattern of utilization of the available but limited human, technical and financial resources.

The work of the original Commission is also mentioned at the beginning of the 1974 to 1978 Development Plan in the section of planning objectives, strategy and policy as being necessitated by the enormous increase of education cost since Independence and the increasing difficulty in getting wage employment by those leaving primary and secondary schools.

It was clear to us that one of the largest problems confronting the country was that of unemployment. The number of unemployed school-leavers was growing rapidly as their numbers continued to swell following the enormous expansion of the education system in recent years. Although a considerable amount of success in employment had been achieved within the last decade, we were satisfied that employment creation for school-leavers was expected to be one of the major economic problems to be solved in future.

Because of this wide range of tasks we found it necessary to interpret our terms of reference widely. Basically, however, the educational system in Kenya appeared to us to be characterized by two main features which in turn were at the heart of its problems. Firstly, the formal educational system has been seen by the public as the best access route to advancement of the individual, society and the economy. Most of the gains from independent Kenya's rapid economic growth have tended to concentrate in the modern formal sector of the economy. Since only the relatively few in the country who have completed secondary and tertiary levels of formal education have found it easy to enter into this sector of the economy, the large majority of Kenyans are left to survive on other less remunerative means.

Secondly, it also became evident to us that the objective, structure and content of the present formal educational system were highly selective. The aim of the system appeared to us to be to produce a few individuals who are well equipped for placement in the modern formal sector of the economy. The rest of the school-leavers are normally not accounted for.

It was made clear that our task was to provide a framework for solving these problems by the Government whose concern had been aroused by the appearance of large and rapidly increasing numbers of individuals who the formal educational system had not equipped with the skills and qualities required by the economy. Furthermore, these individuals were competing for relatively few

openings in the modern sector, the number of jobless school-leavers was increasing, the formal qualifications demanded by employers were rising rapidly in number and the period required to get employment continued to lengthen. It could, therefore, be argued that in spite of the enormous success that had been achieved in the first ten years of independence, the assumption that academic education as such automatically leads to employment would need to be changed to take account of the changing social and economic realities of the country.

Since Independence, education in the country has been given very high priority. As a result the system has been developed at a cost which was relatively high as far as the Kenyan economy was concerned and at a level which was reported to be one of the highest in the world. This situation calls for an urgent review in order to forestall possible distortion of priorities in planning the economy. The quantitative expansion which had occurred in the education system during the first decade of independence had thus served to highlight the worsening state of the competition among the products of the educational system for individual, social and economic advancement within the small but expanding modern sector of the economy. Furthermore, such quantitative expansion had absorbed an ever increasing proportion of the nation's resources which were available for all the other services that are necessary for social change.

We were well aware that the people of Kenya in general had made great Harambee efforts through personal initiative and sacrifice to enlarge opportunities for access into the formal sectors of education. The products of those educational institutions were, however, still fundamentally unchanged and in many cases had been getting unsatisfactory education. They still came out of school orientated to white-collar jobs and were poorly equipped towards playing an effective role in the social and economic development of Kenya. They, too, were entering the fierce competition for the relatively few opportunities in the modern urbanized sector of the economy and the majority of them ended up being frustrated.

The overall effect of all this had been that an increasing proportion of the nation's human resources were being wasted. Others were flowing from the rural areas into the urban areas in search of modern sector jobs, thereby draining the rural areas of their potentially most valuable resources, namely, the energies and abilities of their youth and the material resources required for rural development. This was why the Government had been particularly anxious to influence the pattern and the rate of economic growth so as to redress the disparity of development between the urban and rural areas which could only be achieved through the creation of new opportunities in the rural areas to reduce the outflow of human resources from there.

At the commencement of our work the Government was also anxious to create new means for individuals to acquire skills and abilities which would

improve their social and economic status and make them self-sufficient. In this regard the Government had declared in the 1974 to 1978 Development Plan its intention to encourage the growth of the Harambee institutes of technology to cater for individuals of widely varying backgrounds and ages through provision of more specific forms of training and skill development within a setting that was more responsive to local needs in the rural areas. These institutions were thus expected to address themselves to the more specialized problems of skill development at the community level and thereby motivate the individual and stimulate employment in a flexible and efficient manner. In the long run, these institutes of technology would be expected to evolve, within the national context, into a network of institutions that sought to develop the natural abilities of the community by means other than those that can be provided by the formal educational system. We have proposed a framework within which these expectations can be realized.

We have also used the following policy guidelines being pursued by the Government, at the commencement of our work, to deal with immediate problems relating to education. These guidelines are defined in 1974 to 1978 Development Plan.

They are, firstly, that access to seven years basic education for every child is regarded as a fundamental right. To this end the Government has undertaken to continue to promote the movement towards universal primary education and took the first step towards this goal at the beginning of 1974 when fees were removed for Primary 1 to 4. We therefore worked on the assumption that we were expected to look into the feasibility of completing this process of trying to achieve equity in the country as promised by the ruling party KANU.

Secondly, the Government intends to restrict capital investment in education to those projects which are most likely to improve the quality and content of the education system. We interpreted this to mean that capital investment of public funds was to be directed to the improvement of the quality and content of education as a priority rather than to expansion of education as such.

Thirdly, the Government continues to review the curriculum, the methods of teaching and the forms of selection presently practised at the primary and secondary levels with a view to making the content of the educational system more relevant to social and economic needs of the country. Much had been written and said by the public against the Certificate of Primary Education and on the need to abolish it. There was also growing concern about the deteriorating quality of teaching of new primary mathematics and science and the consequent poor performance by pupils. These two issues became a major feature of our work.

Fourthly, the Government intends to exercise the closest control over the number and type of teacher trainees and over their deployment in the schools in order to ensure that they are utilized as efficiently as possible. At the

commencement of our work there were about 35,000 untrained primary school teachers whose quality of teaching had been found to be poor due to lack of training in content and teaching methodology. It was, therefore, clear to us that no improvement of quality of education could be achieved without dealing with the quality of teachers.

Fifthly, the Government has undertaken to ensure that access to the higher and more specialized levels of education will be directly related to the nation's developmental needs. Furthermore, the recipients of the benefits of this education should be required to meet an increasing part of its costs. This seemed to us a logical consequence of making primary education free and universal and we therefore reviewed the financing and fee structures at these post-primary levels of education.

Lastly, the Government has undertaken to control the expansion of the educational system at the secondary and tertiary levels so as to make available additional manpower and finance necessary to change the present system. In particular, the Government intends to reduce the annual growth in education expenditure from over 15 per cent at the beginning of the plan period to about 7 per cent. It was further made clear to us that whatever recommendations we made had to take into account the Government policy that the growth in educational expenditure after 1975/1976 must not exceed the growth in recurrent budget as a whole. We have therefore based our recommendations on the assumption that the education's share of the national recurrent budget will not exceed the present level of about 30 per cent during the next decade.

Although our tasks were prompted by a number of problems that were related to the education system, we were nevertheless keenly conscious of the achievements which had been made during the first decade of independence.

The educational system in Kenya since Independence had been charged with enormous and formidable tasks. Educational opportunities that were previously restricted during the colonial years had been greatly expanded. In particular, there has been rapid expansion of educational opportunities at the primary and secondary levels in rural areas. Primary education has been provided with a supervisory service. Applied subjects have been introduced into secondary schools and associated teacher education programmes. This has been greatly facilitated by the production of textbooks and other educational materials within the country on a vast scale.

The teachers required for this expansion of educational opportunities have been produced through the establishment of secondary teacher education programmes at Kenyatta University College, Kenya Science Teachers' College and the Faculty of Education of the University of Nairobi.

The education system has also been charged with the formidable task of facilitating national unity. This has been partly achieved through the removal

of racial segregation from the school system and localization of syllabi at all levels of education.

A racially segregated system of education was developed during the colonial days on the basis of beliefs generated and held by some white races, including the British who colonized and ruled Kenya, regarding their own superiority in relation to the dark races and their respective cultures and assumed educability.

It is only about three or four decades ago during the colonial days in Kenya when it was prejudicially declared by the colonial authorities that the mental development of the average African adult was equivalent to that of the average European boy of between 7 and 8 years of age. It was furthermore asserted by the then colonial masters that there might be danger of straining the African mind by Western education.

These erroneous and racially motivated colonial statements were influential in justifying the establishment of segregated educational systems for Europeans, Asians and Africans. Although these segregated systems have subsequently been abolished following Independence on the firm belief that all children should study together to foster national unity, they constitute an important aspect of the background to shortages of trained African personnel.

Concurrently with the abolition of racially designed educational programmes, the Government introduced the following measures to facilitate national unity in a plural society composed of races and tribes who at Independence were divided for the administrative convenience of the colonial government.

First of all the Government assumed central responsibility for education at all levels by removing that responsibility from various communal and religious bodies who managed the segregated system.

Secondly, the Government accepted the principle of one teaching service and established the Teachers Service Commission as a central employer of teachers in Kenya.

Thirdly, the Government deliberately made funds available to assist poor children gain access to both primary and secondary education through a system of fees remission and bursaries.

Fourthly, the Government increased the number of boarding schools (national and provincial) to enable more children attend schools. This was coupled with increased bursaries for African children attending the former European boarding schools.

Fifthly, the Government adopted a common medium of instruction so that no children were disadvantaged, and recently the Government has introduced

the teaching of Kiswahili at all levels so that those going to school are able to communicate with the people in the national language.

Sixthly, it is also of significance that for the first ten years of independence, the Government made education free after Ordinary Level School Certificate so that only academic merit would be considered for admission to Form 5 and the University.

Seventhly, for those going overseas for further and higher education, the Government established a Central Selection Board with representatives from each Province to ensure that, apart from academic qualifications, there was equitable distribution of the available scholarships and bursaries.

Lastly, in teacher education the district training colleges which were parochial and denominational were consolidated into a few national colleges, and district quotas for entering these colleges were established based on school population and need for various grades of teachers in each district.

These have been some of the positive contributions of education towards national unity. They have been supported by an integrated teaching service where teachers, especially at secondary level, are posted to schools across the country as needs arise.

In all our deliberations we have identified national unity as one of the most important values that our society should continue to aspire to achieve. Guided by the African traditions of political democracy and mutual social responsibility which are the basic characteristics of Kenya's philosophy of African Socialism, we have tried to define the nation's values in social, cultural and economic terms. A society that cannot define, uphold and teach its values will inevitably be subject to invasion by other values that may have no real survival value in the long run. We recognized that these African traditions had guided the development of our society from time immemorial. We therefore begin our substantive report with a review of these values in an effort to provide a perspective for the technical aspects of our education review in the subsequent chapters.

We the undersigned have thus used our terms of reference, the Government policy guidelines and the traditions of African Socialism in arriving at our recommendations for the goals and programmes of action to be followed by the Government in implementing desired educational change during the next 10 to 20 years. Our deliberations have been kept within our terms of reference. This report has been written on the basis of the three objectives that had to be achieved, namely to evaluate the present system of education, to define a new set of educational goals for the next decade of independence and to formulate a specific programme of action for achieving those goals. We have done everything possible within our means and in the period allocated to us to provide the framework that the Government requested for

effecting desirable and far-reaching changes in the education system. We hope our efforts will prove their worth with time.

We the undersigned now have the honour to present the report:—

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## SUMMARY

At the time of Independence in 1963 Kenya was faced with a severe shortage of skilled manpower to assume the multiplicity of responsibilities that had previously been held by foreigners. These shortages were dealt with through a tremendous expansion in primary, secondary and tertiary education. Practically every student who successfully completed ordinary level school certificate was invited to wage employment in the modern sector of the economy.

By the early 1970s, these severe manpower shortages had been largely dealt with. In addition it was evident at the time that a strong attitude had been established that formal education automatically led to high wage employment in the modern urbanized sector of the economy. It is the view of the Committee that many of the problems that have subsequently confronted the country in relation to education derive from the momentum created by the high economic returns that have been expected from formal education.

One of these problems has been the increasing level of unemployment among products of formal education at all levels. In spite of this unemployment there are still major areas of national development that are seriously hampered by lack of people with the most appropriate attitudes, knowledge and skills to carry out the required tasks. In particular, more could have been done to facilitate the growth of the informal sector of the economy, self-employment in the rural areas in agricultural and commercial activities or in the creation of the most appropriate labour intensive technology to facilitate rural development. Human, technical and financial resources have tended to be directed to serve mainly the needs of the modern urbanized sector of the economy. This has in turn resulted in heavy rural-urban migration in search of non-existent jobs, increased crime rates and a relative scarcity of the resources required to facilitate the growth of other sectors of the economy.

As a result of this tremendous social and economic orientation towards the modern urbanized sector of the economy, economic values have tended to dominate other socially and culturally vital values of society. In particular, there has been an obvious tendency to disregard the ethics of society that determine the long-term survival and enhancement of the quality of life of its people. It is of the utmost importance that the country should promote its social and cultural values based on its philosophy of African Socialism and its African traditions of political democracy and mutual social responsibility.

Apart from unemployment, the other pressing problem has been the rising cost of education which, if it went unchecked, would in time have consumed

the entire Government recurrent budget leaving little or no resources to finance other services and directly productive activities. Ways of improving the education system must therefore be found within restrictive financial constraints. This can only be achieved through a more closely co-ordinated system of Government planning of education and training. Such a co-ordination machinery should build into it an effective system for continuous evaluation of education and training to ensure that priorities of national development are achieved as planned.

The tremendous expansion of education has often been achieved at the cost of quality and relevance of education. In particular, the quality of teachers has been a growing concern in recent years. In primary schools over one third of the teachers are untrained. Harambee secondary schools have been poorly staffed and equipped and have therefore tended to concentrate on arts subjects with little or no science. The Bachelor of Education teachers recruited to secondary schools have been found to be weak in content in the subjects they are expected to teach. Discipline among teachers and pupils is known to have been deteriorating. All these factors have had adverse effects on the quality of education.

The Committee has reviewed these problems and has made proposals that should constitute a framework within which the Government will be able to modify education during the next ten to twenty years. The Committee would particularly like to highlight the following points.

Resources will have to be shifted to directly productive activities in agricultural production and related industrial and commercial activities to generate increased resources for education and other services.

In particular, there is need to facilitate growth of rural areas and the informal sector of the economy with a view to creating self-employment opportunities for the majority of Kenyans. The systems of job rewards and incentives will also have to be improved in these areas to attract increasing numbers of school-leavers. The public will need to be educated about these shifts in emphasis in view of the prevailing attitude that formal education automatically leads to high wage employment in the modern urbanized sector.

Education and training will need to be modified and diversified so as to cater for the majority of students who terminate their education at any one level. In particular, teacher education will need to be greatly expanded and improved if the quality of education is to be improved and maintained. Youth will need to be exposed to the realities of work while at school. The teaching of mathematics, sciences and pre-vocational subjects will need to be greatly improved. Vocational training will need to be orientated increasingly towards self-employment in rural areas. Educational materials will need to emphasize the values and realities of the social and economic environment of the

country. Harambee schools need now to be integrated into the national education system with a view to improving the quality of education offered there.

The Committee has concerned itself particularly with the need to promote national unity and culture. The promotion of cultural practices that are of value in educational and scientific development and in national unity will need to be promoted and supported. In the teaching of arts and humanities the children should be trained to use their creative talents towards self-employment in fields like writing, music, painting, carving and so on.

The Committee is convinced that Kenya has the potential and scope to make the most appropriate changes in her system of education and training to meet the challenges of a rapidly changing world. The effectiveness with which such changes are made will depend very heavily on the will and competence of the planners, managers and co-ordinators of education, training and manpower development. The Committee has hopefully provided the framework within which to operate.

# CHAPTER 1—THE NATION'S SOCIAL, CULTURAL AND ECONOMIC VALUES

## 1.1 Evaluation

"The system adopted in Kenya is African Socialism . . . a term describing an African political and economic system that is positively African . . . but capable of incorporating useful and compatible techniques from whatever source. . . . There are two African traditions which form an essential basis for African Socialism—political democracy and mutual social responsibility. Political democracy implies that each member of society is equal in his political rights and that no individual or group will be permitted to exert undue influence on the policies of the State. Mutual social responsibility is an extension of the African family spirit to the nation as a whole. . . . It implies a mutual responsibility by society and its members to do their very best for each other with the full knowledge and understanding that if society prospers its members will share in that prosperity and that society cannot prosper without the full co-operation of its members." (*Republic of Kenya,* 1965.)

"We therefore invite you to join in the difficult but exciting and rewarding task of building a society which is democratic, African and socialist." (*KANU,* 1969.)

This was part of the expression of the unifying spirit by which the people of Kenya had struggled through the divisive techniques of colonial domination to emerge as an independent African nation. Since then the spirit has been captured and perpetuated in the dynamic ideals of the national motto of Harambee.

The ideals of Harambee have continued to form the essential foundations and guidelines for the continued enhancement of national unity. These ideals have been continually reiterated by the country's political leaders and other members of the public. For example, the address given by President Kenyatta on the occasion of the 1976 Kenyatta Day (20th October) was devoted entirely to the manner in which national unity had helped Kenyans to deal effectively with a number of national and international problems.

The question now is whether the education system had taken the expected measures to impart these ideals of the Kenyan society to the youth and to show them how the ideals relate to the rapidly changing social and economic conditions of the country in particular and the world in general. The Committee has come to the conclusion that the managerial levels of the education

system have done very little, if anything, to integrate the national ideals of Harambee with the formal processes of learning in the country. On the contrary the education system has tended to be influenced unduly by the white-collar job values of the modern sector of the economy. There is now urgent need for the education system to develop and elaborate on these ideals of society to guide and enhance the adaptability of the nation, especially the youth, to new and changing circumstances.

The social ideal of Harambee in Kenya implies that the success of the nation depends on the contribution of every citizen to the degree they are able. The dynamic ideals of Harambee need therefore to be programmed with the teaching of traditional social values of society to ensure that these will in future continue to stand on firm social foundations. One of the ways of achieving this is to integrate schools more closely with the systems of values and other useful traditional practices found in the communities in which they are located. It must be remembered however that while the community would like to see children learning and upholding high social values, the relative isolation of schools from traditional values of the communities around them has tended to breed alienation rather than social integration. This is because of the very high economic returns that parents and children expect from formal education alone. There is thus an increasing tendency for children not to participate in useful activities at home because even the parents do not often expect their children to participate in any other activities except academic study. This change in values and attitudes in parents has been well illustrated in cases where parents have expected boarding secondary schools to provide labour for washing and mending clothes, making beds and gardening, and have insisted that the sign of a good school is one that does not make the students perform such tasks.

Parents with such attitudes have the very best intentions of enabling their children to do better than they themselves have done in their own time. Yet it is in the learning and active performance of many of these adaptive skills that young persons enhance their adaptability and hence their chances of doing increasingly better in life. It would therefore appear that even parents, and the public in general, need to reorientate their values and attitudes towards the need to enable youth to acquire a more balanced educational development through a system of relevant academic knowledge, adaptive skills and attitudinal attributes in contrast to the present emphasis on only the academic attributes and the white-collar mentality that these lead to. Children are very strongly influenced by the attitudes, habits and other activities of their parents. These attitudes have in fact influenced discipline in a number of schools where influential parents have tried and often managed to erode the authority of the school heads and teachers. It must be emphasized however that parental influence is not the only cause of lack of discipline in schools. A great deal of indiscipline in schools is basically a reflection of the social problems of an open and increasingly affluent society

in which lack of insistence on strict discipline and upholding of valued social constraints have been tolerated to levels that have never been seen before in the country. In this respect Kenya shares with many other countries of the world the problems of youth unrest arising from increasing affluence, social openness and easy communications.

One of the problems of formalized schooling today is that parents tend to assume that the teachers will provide for all the learning, disciplinary and socialization needs of youth, including the understanding of the ethical values of society. The schools as they are today do not have the capability, time or even motivation to teach the values of society. This is because the schools are geared entirely to the passing of formal examinations. On the other hand the teaching of social values is assumed by the teachers to be the responsibility of the parents. The youth, therefore, end up in many cases having learnt little about the values of society. Yet the traditional and future importance of the society being able to define and teach its values cannot be over-emphasized. In doing this, there is need to take the views of the community into account in planning and developing any teaching of values of society. In view of this need the Committee would like to emphasize the need for parents, teachers and the establishment to revitalize and promote the importance and relevance of traditional social values if they expect the youth to adopt and use them.

The question now, therefore, is how the education system is to build into it an organized system of teaching the values of society to the youth. The following sections review this question and make relevant recommendations.

## 1.2 Goals and Programmes of Action

### 1.2.1 National Unity

> "In any society, especially during a political crisis or emergency, people tend to understand the need of uniting against their common enemy. But in the years which follow basic victory and prosperity, it is not always easy for the important force of national unity to seem so real and important. Let me mention here, that our Republic continues to be faced with various types of challenges, both national and international, which require our unity and finding solutions." (*President Kenyatta,* 1976.)

This quotation was part of the address given to the nation by President Kenyatta on the occasion of the 1976 Kenyatta Day (20th October). The address was devoted entirely to the theme of national unity, with particular reference to the way in which national unity has helped Kenyans to deal effectively with a number of national and international challenges. The President emphasized that the single most important attribute to the nation's past and future stability and progress is national unity.

Since Independence the concept of national unity has taken a firm foundation, in the designs and emotions of the people in their efforts to enhance the quality of life for all people in the country. Hard work and the close co-operation between the Government and the people had resulted in greater accomplishments in one decade since Independence than all the decades of colonial rule had accomplished.

The President cautioned that in spite of the progress made in the first decade of independence, the country was still faced with national and international challenges whose solutions required the continued building up of national unity.

National unity has continued to be of importance in facing social and economic challenges. These challenges have arisen as a result of relatively rapid increases in global human populations, emergence of new political and trading patterns and the destructive impact of world price inflation. In these circumstances lack of national unity would result in wastage of the nation's limited resources that are essential for survival and improvement of the quality of life.

National unity which is supported by co-ordinated planning by the Government is an essential feature of the proper use of the nation's natural resources such as the forests, soil, rivers and the entire environment. The enforcement of environmental protection and conservation laws cannot succeed without the united support of the principles of conservation by the people of Kenya.

At the international level, it is recognized that no nation can escape the impacts of the social and economic problems of the world. These require the cultivation of international trust and unity . It must however be recognized that the country cannot rely on external generosity and sympathy to solve her problems. National unity and self-reliance must continue to be the real foundations for solving these problems. They must also be the foundations for recognizing and respecting the sovereignty of other countries in a spirit of co-operation.

All these national attributes need to be developed through relevant education that imparts a sense of national and international consciousness. Future generations must be enabled to initiate, plan and develop appropriate social and economic activities for the continued enhancement of the quality of life in the country and the unity of the people. They must be able to remove social and regional inequalities in order to facilitate everybody's contribution towards national unity. The following recommendations serve to reiterate these observations.

*Recommendation* 1
*To continue promoting national unity.*

*Recommendation* 2
*To remove social and regional inequalities.*

*Recommendation* 3

*To create an international consciousness.*

*Recommendation* 4

*To make general education give increasing emphasis to adaptability.*

*Recommendation* 5

*To make formal education institutions, including primary schools, give increasing emphasis on problem solving teaching methods that have a bearing on the real life situation of the Kenyan environment.*

### 1.2.2 Mutual Social Responsibility

The tradition of mutual social responsibility is an extension of the African family spirit to the nation as a whole. It implies a mutual responsibility by society and its members to do their very best for each other on the understanding that society cannot prosper without the full co-operation of its members who would in turn share in that prosperity.

The tradition has been manifested most actively through the numerous self-help projects that have contributed greatly to the development of the country. The success with which this tradition is continued into the future will depend on the extent to which it is taught to, and adopted, by the youth. It is in this process that the education system is expected to play a basic role as indicated in the following recommendations.

*Recommendation* 6

*To promote the full development of the talents and personalities of individuals within the context of mutual social responsibility.*

*Recommendation* 7

*To develop those being educated into useful citizens capable of, and motivated towards, contributing to the improvement of the nation as a whole as well as that of their own welfare.*

*Recommendation* 8

*To instil in the students positive attitudes towards co-operative effort and mutual social responsibility by encouraging the project approach to primary teaching.*

*Organize projects on a group basis.*

*Draw topics from any area of the curriculum.*

*Assess all projects and give the same mark to all participants.*

*Include the marks in secondary school selection.*

### 1.2.3 Social Values and Ethics

"Another fundamental force in African traditional life was religion which provided a strict moral code for the community. This will be a prominent feature of African Socialism." (*Republic of Kenya,* 1965.)

The moral or ethical organization of human life in African society aims at making provision for the best possible harmony between the people and their environment in order to ensure human survival and a good quality of life for the whole of the community. The moral code underlying these provisions is developed in customs, commands, social constraints and many other positive aspects of cultural development. It is the conscious provision for survival and enhancement of the quality of life for the whole community that underlies the communal organization of African society. Life activities are programmed within this organized system of social ethics which is traditionally taught to every youth as an integral part of their growth process as they socially assume their roles in the community. Furthermore, the ethics of society are traditionally taught and upheld by its more senior members and leaders. The teaching of ethics should, therefore, be one of the most valuable traditions to be incorporated into education.

Traditional education is basically a life-long process because it is based on the continuous need for survival and enhancement of the quality of life for all members of the community. This implies that education is for all people of all ages and both sexes who thereby commit their lives to follow a comprehensive but wide-ranging set of social and ethical principles and guidelines without which human life would result in social disorganization and chaos.

The responsibility for the teaching of ethics of society has generally been left to be undertaken within the teaching of religion because of the traditional role of religion to provide a strict moral code for the community. There are, however, a number of reasons why the formalized teaching of religions cannot continue effectively to teach the ethics of society for the day-to-day needs of all its members.

For example, Christianity was itself brought into the country by western religious teachers during the colonial rule, a time when there was also strong resentment by Africans against colonial domination. Western religion, therefore, tended to be rejected from a social and political point of view because it was seen as a pacifying tool of the colonial master. For example, religious and ethical teaching of Christianity did not use the strongly religious and ethical beliefs of African society as a foundation. It tended to declare the latter as sinful, primitive, heathen and totally irrelevant in a society which the missionary was aiming at civilizing. Herein then was one of the most fundamental failures of many foreign religious teachers who thereby failed to recognize and teach the universality of the moral basis of religion within the African society. Similar observations can be made in practically all other imported religions. The question now is whether the failure to use African social systems of values is being perpetuated by African educational leadership in an independent nation.

Religion has continued to be taught in schools since Independence. The previously parochialized segregation between sect-oriented schools has, however, been largely abolished. In the meantime it has become increasingly clear that the teaching of ethics of the day-to-day activities has continued to be confused with what is strictly the teaching of religion. Religious teaching concentrates heavily on such matters as relationships of man with the divine, brotherhood of man, values of justice and general moral expectations in terms of good and evil. The teaching of ethics should however go into the details of the social norms underlying all aspects of human behaviour irrespective of whether one is religious, atheistic, agnostic or adheres to any other belief. Ethics for example teaches the moral importance of sound financial control in personal and incorporated business regardless of whether or not the persons involved are religious. It also teaches the moral implications of modern developments in the scientific and technological fields and how to use the power thus acquired for the good of humanity in general.

It is, therefore, evident that the teaching of religion and social ethics should not continue to be mixed up. It may, however, continue to be true that the teachers of religion are among the most competent and credible to teach social ethics. But social ethics cuts across the whole of society where every member, including every teacher, must do everything to adhere to what is essentially a basic code for survival. A business that has no in-built financial control cannot survive in the long run. Financial control is a human activity based on the knowledge, skills and moral education of the individuals involved. Without any kind of moral belief and education the individuals concerned will be just as happy to use their knowledge and skills to manipulate the financial figures for purposes other than the most socially desirable ones. In this way their lack of ethical foundations will constitute a basis for social disintegration and, in the long run, degeneration of the quality of life of society and eventual social death.

Every member of society is thus obliged to live and demonstrate this kind of socially-coded system of ethics. Through the formal and non-formal systems of education, the ethics of society must be passed on to the youth as part of their process of socialization.

In view of the varying degrees of adherence to religions by members of society, religion cannot be used as the only basis for the teaching of social ethics. It would, therefore, appear that there is need to institute specifically the teaching of basic social ethics.

The Committee came to the conclusion that for this to be achieved there is a critical need for a redefinition of the social ethics of the country. In the view of the Committee this need is made urgent by the continually ineffective public condemnation of social problems such as corruption, nepotism, tribalism and idleness due to lack of the necessary supporting moral and civic

education. Ethical training should emphasize parameters of national integration, principles of communal life such as reciprocity, mutual self-reliance, co-operation and Harambee. It should also emphasize the principle of equity as a critical concept in education and social development.

It is the considered view of the Committee that the redefinition of the social ethics of the country has to be based on the values of the rural African society which forms the core of integrated value systems which have better survival potential than the urban sectors. The core of the African social and cultural values is based on the community and the interrelationships which are in turn based on the family systems. This is the basis of the socio-political philosophy of mutual social responsibility.

The structure to be used for teaching social values should take into account two basic traditional approaches to the organization of life. Firstly, there is the organization of the present life both physically and socio-psychologically in such terms as youth socialization and initiation, marriage, childbearing and education, sickness, death, food, drink, shelter, social life, community service and environmental adaptation, organization of settlements and land use system, basic techniques of production and distribution of benefits, division of labour, rewards for tasks, rules governing production and distribution of benefits, human relations, family, kinships and political systems, values and beliefs, symbolism and ritual. Secondly, there is the rationalized belief regarding what is beyond the actual physical and socio-psychological life in terms of ancestors, the past and future in general and of religion.

It is these kinds of systems of social ethics that have been the basic determinants of the quality of life and of survival of society to where it is today. But the whole social environment has been changing in recent decades since the invasion by other systems of teaching of religion and ethics.

The modern sectors form the periphery of the African society. In Kenya, however, there has been a tendency to pull everything away from the core towards the periphery, including the orientation of religion, education, science and technology as well as the economy in general.

The Committee would like to emphasize the need to find ways and means to re-establish the proper perspective of these features in the community core of African social organization. As far as the role of the education system is concerned in this process, the Committee makes the following recommendations.

*Recommendation* 9

*To institute the teaching of religion and social ethics in the education system as a basis for the continued survival and enhancement of the quality of life of society.*

*Recommendation* 10

*To focus education on the basic needs and income-earning opportunities for the rural areas and to foster changes of social values, aspirations and motivations.*

*Recommendation* 11

*To make secondary education contribute to the formulation and propagation of a national ethical code based on the values of traditional African society, bearing in mind that the teaching of religious education should not be regarded as the limit of the schools contribution to ethical education.*

*Recommendation* 12

*To provide for ethical education and training and for such social matters as family life education, issues of the environment, and national and international understanding.*

### 1.2.4 Cultural Values

Every society has a culture, although the degree to which it is reinforced, stabilized and nurtured varies from society to society. It constitutes social organization, technology, learned behaviour, values, languages, beliefs and religion. It also represents inherited traditions, folk-lore, myths and interpretations of man's destiny. It forms the basis for social collective identity and personality, social consciousness and definition of self. It forms a springboard for patriotic behaviour and loyalty, confidence, self-reliance and self-direction.

All culture is transmitted from generation to generation through learning, copying and conservation. This is carried out firstly in the family where parents teach children such things as basic behaviour, language, values, rules of human relations and basic skills of adaptability. It is also transmitted through community groups such as age mates, social groups and elders where the youth learn rules of human relations, norms regulating achievement and social ethics. This learning is then extended to the wider society in terms of adaptability to situations, application of skills and citizenship. The institutionalized and formalized school system must be planned and developed as an integral part of these social processes.

The coming of western religion created among the Africans the so-called "Asomi" who aped western ways and looked down upon any indigenous cultural practices. The bulk of the population became the non-asomi. They were seen as a diffuse collectivity of illiterates who could be ridiculed into a dehumanizing awareness of their low status in life. This process of alienation became successful through the exaltation of the supremacy of western religion, technology, and social values and downgrading completely the usefulness of any African traditions and practices. Africans were being reduced to being apologetic about being African through a process of conversion to

the belief that they had to give up their social values to adopt those of the western people. The African children learned to be ashamed of their parents and home backgrounds with the associated loss of authority and credibility of their parents. In the long run this has produced weakened family systems, white-collar mentality and narrowly based materialistic education leading to individualistic tendencies. As a result, the fundamentally valuable ethics of African society have in many cases been abandoned under the influence of foreigners whose alternatives have often been accepted blindly. The question now is whether the adopted systems of cultural values have the same basic value in terms of social survival and quality of life in the rapidly changing world of tomorrow in the environment of a developing country like Kenya. There is increasing evidence that they do not.

The Committee has come to the conclusion that the education system which has in many cases been instrumental as an agent of social alienation must therefore be made to make the necessary social corrections by teaching a national culture and basic family and social life education. The aim of such a step will be to ensure national unity, survival and an enhanced quality of life in an increasingly internationally inter-dependent pattern of human life. The following recommendations attempt to suggest how this should be achieved.

*Recommendation* 13

*To promote traditional practices that are conducive to national unity.*

*Recommendation* 14

*To direct the traditional development of the country so as to serve as an effective expression of the values and ways of life of the people of Kenya by adopting the various ethnically based traditional practices as part of a national culture.*

*Recommendation* 15

*To promote traditional practices that have educational and occupational values.*

*Recommendation* 16

*To integrate traditional practices with modern scientific and technological developments.*

*Recommendation* 17

*To codify and use the traditional practices which can serve as sources of basic knowledge.*

*Recommendation* 18

*To identify and catalogue traditional methodology and theories and to integrate such traditional education with the modern educational practices for life long continuing education.*

### 1.2.5 Economic Values (Attitudes to Work and Incentives)

It has become increasingly evident that the influence of foreign economic values may be playing an important role in determining the continued underdevelopment of countries such as Kenya. The demands created by the elite and school-leavers tend to force the country to sustain heavy import bills, heavy pressure on foreign exchange, increasing push for production of cash crops for export sometimes at the expense of essential foodstuffs for internal consumption, and a continuing weakening of the bargaining strength of the country's foreign exchange. White-collar jobs whose origins go back to colonial days when schools were used to train clerks, interpreters, and junior civil servants no longer reflect what is possible or desirable in the circumstances of today. They have led to job selectivity, overcrowding in certain employment sectors and shortages in others, and open and worsening state of unemployment. The continued tendency for shifting towards the modern sector is closely associated with increased importation of capital intensive technology.

The Committee is satisfied that there is need to re-adjust the economy towards meeting basic internal needs of the core of African society based on increased development and use of appropriate and labour-intensive technologies. This can only be achieved if the values, aspirations, motivations, beliefs and choices of the core of society are taken into consideration in national development processes.

This would also entail the use of traditional practices as sources of basic knowledge, where these are of particular use, and integrating them with modern science and technology and those international relations which are compatible with the efforts to meet basic internal needs of society.

It should be understood that money as an end in itself does not constitute a socially effective survival value. Yet educational development has tended to respond to the basic career and income aspirations of youth and their parents with consequent migration of youth and school-leavers to urban areas thereby creating grave social problems. The current incomes policy of the country is geared towards allocating and rewarding jobs on the basis of formal education attainment. One of the basic requirements is, therefore, for the education system to impart new economic values and goals for young people and their parents, including positive values for rural careers and local technological production. In the view of the Committee this must be accompanied by basic reforms of incomes structure aimed at de-emphasizing the direct relationship between formal education and high rewards. This can be achieved by such methods as changes in the incomes policy, wage regulations, re-classification of careers and imposition of wage ceilings.

From the point of view of the social, cultural and economic values of the nation, the Committee suggests that the education and training systems be modified to become agents of continuous life long socialization of the youth,

the adults and the community in general and should embody the ideals of Harambee and mutual social responsibility. This is summarized in the following recommendations.

*Recommendation* 19

*To bring about a sense of dignity towards social service and productive labour through appropriately programmed activities of basic education.*

*Recommendation* 20

*To enable and motivate Kenyans to utilize the available resources, with particular attention being given to subjects which emphasize the national value of such fundamental activities as agriculture.*

*Recommendation* 21

*To expose youth to productive labour and to eradicate negative attitudes towards work, especially manual work.*

*Recommendation* 22

*To make the education system seek to alter attitudes towards careers in agriculture and to reinforce changes in aspirations by income redistribution which encourages self-reliance, creativity, use of local resources, initiative and appropriate technology.*

*Recommendation* 23

*To make formal education induce the most appropriate and positive attitudes towards productive labour, with special reference to self-employment.*

*Recommendation* 24

*To restructure the pattern of incentives and rewards in favour of the poorer sections of the community, with particular reference to the rural farming and non-farming activities, through an incomes policy covering wages, salaries, rents, interest rates and profits.*

*Recommendation* 25

*To give greater rewards and incentives to crafts, farming, productive manual work and creativity.*

*Recommendation* 26

*To change the society's system of occupational rewards, particularly as between urban, modern sector occupations and rural development activities, in order to facilitate effective curriculum change.*

*Recommendation* 27

*To review the fee and incentive structure of all education and training programmes with a view to restructuring incentives to encourage entry and, in the case of women, re-entry to vocational training and careers.*

*Recommendation* 28

*To study the prevailing financing structure and incentive system related to all types of training.*

## CHAPTER 2—EDUCATION AND NATIONAL DEVELOPMENT

### (Including the Distribution of Incomes)

### 2.1 Evaluation

The development of the skills and knowledge of the people of a nation constitutes one of the highest social factors in relation to national development. It is the human resources of a nation which determine the character and pace of its social and economic development. Financial and natural resources are exploited and used by people to develop everything else. But it is the balanced development of the qualitative and quantitative aspects of education that makes these relationships possible and useful. Such a balanced and relevant education system should be able to follow, stimulate and facilitate the activities that constitute economic development. The question to be evaluated is whether or not the education system of Kenya has achieved these objectives, including the desirable objective of equitable distribution of incomes.

At Independence there were severe shortages of skilled manpower. These were largely met by the early 1970s through a major expansion of education. There was a lot of enthusiasm about education being the most important element in economic development. The Committee notes that this expansion in education was not matched by a similar expansion in income earning opportunities. As a result there has been an over-production of school-leavers in relation to available jobs.

Education certainly is important for all aspects of economic and social development, especially for a developing country whose structure of the economy is changing rapidly. A welcome development in Kenya since Independence has been the shift in agricultural production from extensive large-scale to intensive small-scale farming. The Committee is satisfied that it is in this area of national development that a great deal of improvement could be achieved through relevant education and training.

It is nevertheless possible to adversely affect such agricultural development by continuing to rely only on formal education primarily designed to meet the requirements of the modern sector of the economy. This is because the expectations of the present day formal education are heavily oriented towards the modern sector of the economy. Furthermore, some studies have demonstrated that in actual performance of agricultural and other labour-intensive tasks those with more years of formal education tend to perform less productively than those with less formal education. This may be partly because the more educated persons tend to spend more time studying and

trying to advance their education for better wage employment in the modern sector while the less educated persons tend to devote all their time and energy to the job that they are learning to perform.

This does not, however, mean that education is a negative element in economic development. The observation is nevertheless an important indicator of some of the areas in which the large working resource of uneducated or minimally educated Kenyans can be positively deployed for enhancing economic growth. It is also an indicator that, in the context of agricultural production, education and training should inculcate values and produce skills which will motivate and enable the educated to increase their productivity. In addition education and training should provide skills which will enable the recipients to perform tasks which include those of management, supervision and financial control of organizations such as farmers' co-operatives and small-scale businesses which are crucial for rural development. These observations also point to the need for further research to identify the true correlations between education and productivity, especially for the rural environment of Kenya.

In terms of what formal education imparts to the learner this means developing the appropriate psychomotor skills, attitudes as well as cognition in trying to relate the relevance of education or lack of it to various patterns of occupations. Psychomotor skills determine a person's ability to operate in particular jobs. Cognition relates to the level of knowledge as represented in the ability to read, write, numerate and interpret. Attitudes determine the person's motivation to a particular job. It is therefore possible for an educated person to have quite a lot of basic knowledge but no skills or motivation to do a particular job. A farmer with little or no formal education, however, may have a high degree of motivation to farm which will encourage him to acquire the necessary skills and knowledge to do the job at increasingly higher levels of productivity.

As far as distribution of incomes is concerned the 1963 Kanu Manifesto and the 1965 Sessional Paper No. 10 on African Socialism did give very clear guidelines. While the Government has done everything possible to follow these guidelines it is the view of the Committee, however, that a great deal still remains to be done to reduce further income disparities among the various sections of the nation. Furthermore the Committee urges that every effort be put into promoting the traditions of mutual social responsibility and sense of service as stipulated in the 1965 Sessional Paper No. 10 on African Socialism and the 1963 Kanu Manifesto. It is the strong view of the Committee that one of the most fundamental steps that needs to be taken in finding a solution to this problem is the creation of income earning opportunities in rural areas. It is also proposed that one of the ways of achieving this goal will be through the creation and use of the most appropriate technology that can facilitate rural development.

Science provides the necessary knowledge which underlies the development of the appropriate skills and technology required to meet the needs of mankind, especially those that depend on the development of industrial arts. While most of the basic scientific knowledge and education is of universal nature, its technological application must take into account the social and economic needs of the environment in which it is to be applied.

In Kenya, rural development remains one of the biggest challenges to science and technology. Labour is plentiful in the country. The enormous human resource in the rural areas can be productively used provided the appropriate labour-intensive technology is made available and used. Yet a lot of the technology which is currently applied in the country, including the rural areas, is capital-intensive technology which is designed entirely for use in developed countries where it is imported from and where the relative costs of manual labour are high. The Committee considers that a great deal of research needs to be directed towards the design, development and use of the technology that is most appropriate to rural development. This can only be achieved if the Government encourages and supports this kind of development-oriented research in view of the predominant influence of the modern sector of the economy and its heavy dependence on capital-intensive technology. The institutional facilities of the university and national polytechnics have the capability to carry out the necessary research required for development of the most appropriate technology for rural development.

Technology normally refers to the skills, plus the knowledge behind them, which are used to supply the needs of man through the development of the industrial arts. Technology achieves this by putting the discoveries and inventions which have been made by scientists into practical application. The discoveries and inventions include basic developments of technological design which are created as a result of relevant research work.

It is well known that the indiscriminate importation and application of capital-intensive technology in the country have actually contributed to the creation of relative unemployment. While such capital-intensive technology may enable modern industry to develop rapidly, the rate of absorption of people into employment may at the same time be slowed down considerably. This is partly due to the high cost of creating work-places for people and the tendency to automation which is associated with a lot of the capital-intensive technology. Even in rural areas there is an increasing tendency to mechanize agriculture almost entirely on the basis of this kind of technology.

The Committee has therefore come to the conclusion that one of the biggest challenges facing research and development in the country is the creation of the most appropriate technology to supply the needs of the increasing number of unemployed school-leavers, especially in the rural areas. In this regard, research and development activities need to be intensified in such

areas as arid zone agriculture, small-scale agriculture and business, co-operative development, as well as the educational and social requirements for facilitating these developments. This also puts a challenge to the national planners and policy makers with regard to the guidance expected of them in causing the most appropriate social and economic changes in the country according to the real needs of the people.

In the meantime, the public expects the programmes and institutions carrying out research for development to also do something to facilitate the production of skilled manpower capable of creating employment, especially self-employment in rural areas. The Committee has come to the conclusion that to achieve this goal will require substantial support for research aimed at establishing the potential for creation of self-employment.

One of the proven ways of achieving self-employment is to ensure that a lot of training is done on programmes based on production of real serviceable commodities. This has been shown to be of more value than the kind of formal education and even practical laboratory or classroom exercises which are discarded after examinations have been done.

Production oriented education and training would mean the installation of production units at educational and training institutions in which items would be made under conditions which simulate real occupation conditions in which the student will eventually be productively self-employed.

The products of such units would be prepared at standards which could fetch reasonable commercial prices. This would have the added advantage of helping to recover some of the running expenses of the training institutions including the tuition costs and purchase of tools which the students could eventually be helped to own to get into self-employment. It would also demonstrate to the students the processes of real production and self-reliance.

This kind of production-oriented education and training could prove to be not only cheaper to run but it would also provide opportunity for the students to use their initiatives in relation to the common and familiar problems of various aspects of national development.

Kenya has already made considerable progress in this direction, especially in many of the centres that have been established for the special education of the handicapped. Encouraging results have also been obtained through the establishment and successful functioning of the village polytechnics and harambee institutes of science and technology. Where these rural institutions have been successful, the usual atmosphere of boredom and nothing to do which is often found among youth in many rural areas has been replaced by an atmosphere of enthusiasm and willingness to use their physical energy and to apply themselves to the tasks of solving rural problems. The Committee would like to see these successes being applied more extensively in

the country. More research and development activities are necessary in order to establish the most effective way of doing so.

Through some of the village polytechnics young people have learnt how to gain an income through such occupations as keeping of bees, poultry and fish. Technology for self-reliance at this level needs to be given much more national recognition and planned support so that the general public can see the potential and actual patterns of opportunities which can be realized through the application of such skills. Research and development activities are also expected to uphold and highlight the importance of creation and application of appropriate technology for supply of housing, nutrition, storage, transportation and other needs of a predominantly agricultural society within a modern economy.

The institutions where such research is carried out will thus be expected to work in much more close relation to the kind of problems of rural development that they hope their research result and trainees will eventually be involved in solving than has been the case. The Committee would also like to emphasize that the multiplicity of research activities in the country must be closely co-ordinated and carefully related to national needs. In this regard the Committee commends the recent establishment of the National Council of Science and Technology which is expected to facilitate the most desirable developments in research and development work in the country.

## 2.2 Goals and Programmes of Action

### 2.2.1 Knowledge, Skills, Attitudes and Purpose in Life

One of the major features of the greatly expanded system of education since Independence has been the extent to which it has been influenced by values and attitudes of society. In particular, the attitudes of parents and their children have been very heavily determined by patterns of employment, salary distribution, and differences in the social and economic conditions between urban and rural areas. These attitudes and values have developed a momentum which has in turn determined the numbers of children going to school. It is the view of the Committee that unless this kind of momentum is co-ordinated and guided it is bound to place problems on national planning.

Attitudes towards education have been heavily determined by formal education in order to motivate people to go into those other areas. Formal education is mainly orientated towards passing examinations and obtaining certificates rather than in helping the student to grow intellectually, physically and spiritually as an integrated human being. But in view of the very high expectation of the student and the public about the economic value of passing an examination, a major discrepancy has developed between education for passing examinations on the one hand and education for adaptability in life on the other. This is compounded by the fact that the formal education

system caters only for the academic attributes of students but not for other attributes, especially those of discipline and psychomotor skills which are of real value in enabling the persons concerned to contribute effectively to social and economic development.

In this regard the Committee would like to express its grave concern about what is generally acknowledged as serious deterioration of discipline in many educational institutions. The public repeatedly expressed its concern about school discipline and urged that something be done to improve the situation. It was because of this that the Committee was impressed with the examples being set by those institutions where discipline is of paramount importance above all else. In particular, it was very encouraging indeed to see the effect on youth of strict discipline, good education and training and an emphasis on development of positive attitudes to work and strong sense of service. These results were observed by the Committee at Starehe Boys Centre in Nairobi and it was also encouraging to see the concern of the youth there regarding the observed deterioration of school discipline in general.

It is evident that the problem of discipline must be dealt with by teachers and educational authorities. The Committee would nevertheless like to reiterate that lack of discipline among youth is also largely a reflection of the attitudes, values and practices of the society of which they are part. The Committee would therefore like to reiterate further the importance of everybody in our society doing their very best to uphold the highest social values in order that youth may also adopt and use them. The following recommendations are made to facilitate the development of the most desirable knowledge, skills and attitudes, especially those of youth.

*Recommendation* 29

*To assess and develop the intellectual, spiritual and physical potential of the country's human resources for purposes of raising the overall productivity and quality of life in the country.*

*Recommendation* 30

*To promote national economic development by providing manpower with the most appropriate knowledge, skills and attitudes in relation to social and economic needs of the country as a whole.*

*Recommendation* 31

*To make formal education include the teaching of pre-vocational craft-orientated skills, including small-scale business techniques, in order to encourage self-confidence, creative ability and evaluative capacity.*

*Recommendation* 32

*To assist youth to grow into self-disciplined, self-respecting and law-abiding, mature-minded and creative people.*

*Recommendation* 33

*To encourage youth to relate the knowledge they get in education to a purpose in life.*

### 2.2.2 Youth and National Development

It has become increasingly evident that formal education as it is today has tended to alienate youth from their real social and productive backgrounds and the realities of nation building. This has been attributed to the white-collar attitudes that it builds up in most of them. Yet the social and economic conditions of rural communities form the basic core of African society. The modern sector is in fact the added periphery in terms of primary production and social values that constitute the means of survival for the majority of the people in the country. At the moment there is very little linkage between the formal education system and the real life situations under which the majority of the people live and work. In contrast, everything tends to be oriented towards, and even to be determined by, the requirements of the modern sector. Even the energy of the youth from these rural communities tend to be lost into the urban communities in search of modern sector employment, thereby perpetuating the poor conditions of rural areas. Other young people remain unemployed and soon engage in socially disruptive activities.

The Committee has therefore considered the desirability of making provision for periods of service for all youth aimed at exposing them to the realities of national development and facilitating the development of positive attitudes towards labour. Apart from exposing the youth to the real life situations, especially those of rural areas, such a system of service would also contribute towards overcoming of the severe manpower shortages which exist in many productive areas of the economy. In particular, it would put an enormous reservoir of energy onto the process of rural development.

The Committee has come to the conclusion that the usefulness of such periods of service, including the proposed national service for university students, cannot be fully realized unless it is carefully planned and co-ordinated for youth on a national basis. This implies the establishment of a nationally planned and controlled organization aimed at finding the most productive manner in which youth could be directed to contribute to the social and economic development of the country.

It is certainly true that any education system that alienates its youth against the real life situations in which they and their people live and work is bound to be detrimental to the social and economic development of the country in the long run. This trend is already evident in the formal education system in Kenya which is looked upon by the public purely as a means of entry into the modern sector of the economy. It is associated with breeding white-collar job attitudes. There is very little or no exposure within the education system

to the realities of work even in terms of such essential requirements as organizational abilities and skills that are necessary even in modern sector jobs. It is the view of the Committee that acquaintance with the realities of the social and economic environment in which the products of the education system will work and live is essential. In terms of the Kenyan economy, this basic experience would also provide the youth with the opportunity to use their initiatives in the development of labour-intensive industry which the Committee has identified as a major strategy of national development. Continued dependence on capital-intensive investment, especially for rural development, will continue to make it impossible to create jobs at the rate at which they are required by products of the educational system.

It is the view of the Committee therefore that means for implementing such a youth service and thereby integrating formal education with the real social environment of the country, must be found at the national level. It is expected that in such an integrated service the home, community and general environment will be seen as supplementing the learning processes generated by the educational institutions. It would also help to integrate the educational institutions themselves with their immediate environments, including the development of links between teachers and other professional workers such as extension workers, health educators, adult educators and many others. Furthermore it would help to integrate the formal education system with the real values of society which are embodied in those traditional practices that have guided the survival of society for many generations.

The Committee would, however, like to reiterate that the success of such programmes would depend on an efficient machinery for planning, management, co-ordination and control. Such an organized scheme of service had been designed for university students who were expected to spend one year serving in various parts of the country in the year before the final year of their studies. There are some 6,000 students in the two university institutions. This means that about 1,000 to 1,500 university students would be available in any one year for the proposed national service. This scheme did not get off the ground in October, 1975, as planned due to a number of logistical reasons. In the meantime the Committee has been requested to review it together with other proposals for involving youth in national development. The Committee has come to the conclusion that the establishment of a properly organized national machinery would in the long run be the only way of bringing all these proposals into a national, co-ordinated and workable programme.

The Committee has considered the possibility of establishing a compulsory national service for all youth of 18 years of age and over, including the proposed national service for university students. It is evident, however, that for a number of logistical and financial reasons a compulsory national service is not feasible. The Committee is also of the opinion that if such a service

is to be established it should be for all youth who have attained a specified age. For this reason therefore the Committee considers it inadvisable to single out university students for a national service.

The Committee is aware that the cost of establishing a new and compulsory national service is not likely to be met by the resources available in the country. The Committee is also aware of the cost and managerial problems that have confronted similar national services in other countries. The Committee would nevertheless like to see the evolution of a service based on full appreciation by youth and the public of the values of harambee and mutual social responsibility in nation building. It is proposed elsewhere in this report that the education system should actively impart the values of these African traditions.

The main point the Committee wishes to emphasize is that a machinery needs to be organized at the national level to start the process of evolving towards a system of exposing all youth to the realities of the Kenyan environment and thereby using their enormous reservoir of energy for enhancing the quality of life in the rural areas. To start with such a national organization will be concerned with co-ordination of existing youth activities of the various Government Ministries and voluntary agencies for the purpose of relating these activities to national development needs.

In this regard the Committee was greatly impressed by the achievements of the National Youth Service. This is a well-established and highly disciplined organization which provides not only education and training but also opens up development projects throughout the country using the energy of youth. The Committee would like to see it strengthened and expanded along its present lines of organization and operation. The Committee appreciates, however, that even if the National Youth Service were greatly expanded it would not be able to absorb all youth in the country, nor would it be desirable that it should. There is a wide variety if youth organizations and activities which need to be recognized and co-ordinated on a national basis into areas of need in nation building.

The proposed national machinery will therefore be expected to co-ordinate the processes of identifying areas of need such as conservation (tree planting and land reclamation), road maintenance, agricultural development, purification of water, rural housing, flood control, estate development, school maintenance and many others. The following recommendations are made to facilitate implementation of the above observations.

*Recommendation* 34

*To evolve a national system of youth service and to establish an appropriate national organization for planning, management, co-ordination and control.*

*Recommendation* 35

*To convince the parents and youth of the moral, national and ethical values of youth service.*

*Recommendation* 36

*To deploy youth in areas of greatest need.*

*Recommendation* 37

*To promote development of rural areas by involving and using youth.*

*Recommendation* 38

*To expose students to practical problems encountered in endeavours to develop rural areas.*

*Recommendation* 39

*To arrange school terms and holidays in relation to the social and economic needs of the country, with special reference to making holidays to coincide with peak work periods such as the seasonal ones of rural areas, for example, planting and harvesting rice and other cash crops.*

*Recommendation* 40

*To establish functional relationships between schools and local agencies and institutions in which school youth can be placed during the holidays.*

### 2.2.3 Planning and Management Skills

One of the essential requirements in national development is the availability of personnel with the most relevant knowledge and skills in planning and effectively managing the activities that constitute development. As services become more and more complex, the capabilities for planning and management have also to be made more sophisticated. This therefore implies ensuring adequate training of people with the necessary knowledge and skills to direct and create today's services. It also implies the continuous retraining of personnel at all levels of management. The Kenya Institute of Administration has been doing a good job of this continuous retraining of personnel in public service. There has been a tendency, however, to assume that this kind of lifelong retraining is only for the more junior persons who may be aspiring for higher jobs. The Committee would like to emphasize that lifelong education and training is of particular importance for the senior managerial personnel whose responsibility it is to direct complex national undertakings.

In this regard the Committee noted the continued heavy dependence on foreign experts even when it is not necessary. In particular, it is the Committee's view that greater use should be made of the university personnel in national planning and development.

*Recommendation* 41

*To correct the present shortages of management skills by making the most appropriate modifications to secondary and tertiary education as well as in training and retraining programmes.*

*Recommendation* 42

*To make greater use of university personnel in national development, including planning.*

### 2.2.4 Generation and Allocation of Resources

Education is one of the development features which competes with health, roads, agriculture, water development and other services for the available but limited resources. It was evident to the Committee that more resources must be generated to meet the increased requirements of these services. Agriculture has been identified as the area most likely to yield the highest and quickest returns from the available resources. Once the overall budget for education has been allocated, then competition for allocation between the various sectors of education and training occurs. All this requires adequate and co-ordinated planning within the Government to ensure maximum utilization and returns from the limited resources.

*Recommendation* 43

*To increase resources allocated to agriculture, industry, and other directly productive activities in order to establish the revenue basis for financing social services, including education.*

*Recommendation* 44

*To ensure that in the allocation of resources priority is given to training programmes which will ensure the full range of skills required by the economy is provided, and that the necessary physical facilities for this purpose are established within the country.*

### 2.2.5 Community Harambee Effort

#### 2.2.5.1 *General*

The spirit of self-help in Kenya has its roots in African traditions, especially that of mutual social responsibility. As stated in the 1965 Sessional Paper No. 10 on African Socialism, unless self-help projects are guided and integrated into planned national development and subjected to the same discipline and control as any other part of the development effort the result is likely to be a wastage of the country's scarce resources. The Committee therefore came to the conclusion that self-help movement in Kenya needs to be much more carefully guided and assisted so as to contribute efficiently to the totality of national development effort. The following recommendations are made in this regard.

*Recommendation* 45

*To give more Government guidance on development priorities for harambee, with special emphasis on co-ordination to avoid duplication.*

*Recommendation* 46

*To use District Development Committees more effectively in the identification of potential harambee projects, and in the establishment of priorities and in indicating to the local communities the type of projects which the Government would be likely to assist eventually.*

*Recommendation* 47

*To ensure that the communities initiating harambee projects are made fully aware of the recurrent cost implications.*

*Recommendation* 48

*To ensure that contributions to harambee projects are made on a voluntary basis.*

*Recommendation* 49

*To increase the capacity of the Ministry of Education to assist in the planning of harambee educational projects, with special reference to the necessary control in anticipation of Government being requested to support the projects.*

*Recommendation* 50

*To direct educational harambee effort towards more technical education and training, with special orientation towards agriculture and rural self-employment.*

2.2.5.2 *Harambee secondary schools and institutes of technology*

The public have made tremendous sacrifices in contributing to the capital development of harambee secondary schools and institutes of technology. But unless this effort is adequately guided, controlled and supported it is likely to constitute a major waste of national resources. In the long run there is bound to be vicious accumulation of social frustration which might cost the country more heavily to correct at a later date. In the short-term, therefore, the Committee proposes that major improvements be made to the Harambee Package aimed at assisting harambee schools.

The Committee has proposed elsewhere in this report that senior secondary education should be reorganized so as to be terminal for the great majority of students. It is also proposed elsewhere that in this process of reorganization of senior secondary education the present Form I and II education should be moved from secondary schools and be attached to primary schools to constitute junior secondary education. The Committee would like to emphasize that the education to be offered at senior secondary schools should be at the level of the present Form III to Form VI and that junior secondary education should be academically of the same level as the present Form I and II. Education at junior secondary level should, however, be much more diversified, terminal and eventually available to all Kenyan children. Since in the long run it will be an integral part of the proposed nine-year basic

education made available to all Kenyan children, the reorganization is seen by the Committee as a major effort to improve the quality of education hitherto offered in many harambee secondary schools. Similar guidance and assistance is also required for the harambee institutes of science and technology.

The following recommendations attempt to express these requirements.

*Recommendation* 51

*To integrate harambee secondary schools into the national education system.*

*Take-over harambee schools to provide facilities for the reorganized Junior Secondary education.*

*Provide opportunities at the post-junior secondary level for those not offered places in Government schools.*

*Phase out attachment of new harambee streams to aided schools.*

*Recommendation* 52

*To extend, diversify and improve the Harambee Package, with particular reference to the staffing of harambee schools and harambee streams attached to Government schools.*

*Recommendation* 53

*To advise, guide and control the development of harambee schools, with particular reference to better utilization of physical facilities by providing for genuine manpower needs and provision of help by school supervisory services.*

*Recommendation* 54

*To control the funds of harambee schools and to require them to submit audited accounts to the Ministry of Education.*

*Recommendation* 55

*To carry out research on the feasibility of using programmed learning and other media in harambee schools, particularly for the teaching of mathematics and science.*

*Recommendation* 56

*To recognize that the communities which have initiated the harambee institutes of technology differ in their development resources, and therefore the Government should take this into consideration in their planning.*

### 2.2.6 Research and Development

Research and development activities are essential factors for facilitating national development in that they provide vital information to enable planners to direct resources into the most important development priorities. The Committee notes with satisfaction that for a developing country Kenya

spends a relatively high proportion of her gross domestic product on research and development activities. The Committee also notes with satisfaction that the recent establishment of the National Council of Science and Technology has provided the necessary national machinery for working out and co-ordinating research priorities in the country. The Committee would, however, like to reiterate the importance of co-ordinating the multiplicity of research activities in the country and relating them more closely to national needs. The Committee would also like to emphasize the importance of supporting research work aimed at creating the most appropriate technology to facilitate rural development.

*Recommendation* 57

*To plan, co-ordinate, rationalize and continue to support research activities in the country according to national development needs and to provide the necessary resources to carry them out.*

*Recommendation* 58

*To provide the resources necessary for the development of facilities for the design and production of appropriate, educational and other forms of technology, especially labour-intensive types of technology.*

*Recommendation* 59

*To disseminate knowledge effectively with a view to speeding up the most appropriate technological changes.*

*Recommendation* 60

*To establish prizes for inventions.*

## CHAPTER 3—EDUCATION AND RURAL DEVELOPMENT

### 3.1 Evaluation

National development is based on a multiplicity of closely interrelated factors. This is particularly true of rural development where the main dimensions of personal and economic development and of family and community life improvement are comprehensively integrated. Education for rural development must therefore be planned and implemented as a lifelong process, of which formal schooling is only an integral part, in order to facilitate rural development effectively. The question remains as to what extent this has been achieved and how it should be developed in future.

In terms of rural development, education is one of the features of that development in which it competes with health, roads, agriculture, water development and other services for the available but limited resources. It must be noted however, that an institution such as a secondary school may be geographically located in the rural areas but have no effect or relevance to the lives of the people there.

The role of education in rural development does therefore need to be re-examined to facilitate the process of integration of educational institutions into their immediate surroundings.

In general, there is need to develop the education system on an integrated basis rather than on a piecemeal basis of development or reduction of expenditure. One of the ways of doing this is by using a systems method of planning in which all the factors that underlie rural development are taken into consideration in an increasingly integrated manner in the planning and implementation of the education system.

The question still remains as to how the Government can intervene in order to bring about this integration of educational institutions in rural development. Government intervention is urgently needed among the nomadic populations of the arid and semi-arid areas where the level of the infrastructure necessary for development is lacking. Furthermore the need to relate education to environmental conditions is much more urgent in these dry semi-desert areas if they are to be productive in future.

It would appear that one of the ways of achieving this is to get the education system to adopt those aspects of the traditional practices and natural biological phenomena that are of value in promoting social, cultural and economic values. For example, the warrior jump of the Masai and Turkana needs to be carefully studied as it might turn out to be one of the most

effective methods of training athletes at national and international standards. It is in fact one of the traditional practices that should form part of physical education in schools.

Such traditional practices as pastoralism among the nomadic people should feature strongly in their education. Problems relating to preparation of young people for parental and other social responsibilities have arisen with the adoption of formal education. Even educated parents are increasingly unable to instruct their children adequately about their roles in society. In traditional African customs young people were well prepared with regard to such social responsibilities as parenthood, self-reliance and mutual social responsibility.

This need for increased relevance in educational programmes has been clearly highlighted by the shortcomings of such programmes as health education, family planning and even agricultural extension services, where the material presented and the manner in which they are presented have often been concerned with a purely academic approach with no relevance to the real and interrelated problems of the audience. The presenter has in the process often failed to make any meaningful communication needed to deal with the particular problems of the target audience.

The Committee reiterates the need for the Government to encourage and support the adoption of those traditional practices that may be of social, cultural and economic value into the education system. This would imply a constant reiteration of the social and political values of the ruling party Kanu and of the philosophy of African Socialism which were so clearly stated, albeit rather briefly, at the time of Independence.

Rural development entails the totality of the processes of change aimed at enhancing the quality of life of the people living in the rural areas. The majority of them are poor. Their productive capacity is very low due to lack of knowledge, skills and resources. But since agriculture is the basic activity that can be utilized to facilitate rural development, the Committee considers that resources should be directed into improving the welfare and capacity of those engaged in agricultural production, with special attention being given to the small-scale farmer. The integrated rural development programme is aimed at achieving this objective and dealing with poverty.

In Kenya rural development constitutes the most important long-term strategy for national development based on crop and livestock industries, forestry, game, fisheries, water and other inputs required to stimulate agricultural industry and social services. It has been found that rural development based on non-agricultural projects does not grow easily. It has also been found that the creation of one job costs about £10,000 in the modern sector but only about £500 to £1,000 in agriculture. The Committee is therefore satisfied that more occupational opportunities can be created with the

available resources in agriculture than in the modern sector. This provision will become increasingly important in dealing with the rising levels of unemployment in the country.

This means that agriculture will increasingly be called upon to deal with the continuing problems of poverty and unemployment in the rural areas. The majority of primary school-leavers and increasing numbers of secondary school-leavers will live in rural areas and will need to find employment and livelihood there. Unless resources are put into creation of jobs for them, there is likely to be a continuing increase of unemployment of people who have had at least primary and, in increasing numbers, secondary education. To create meaningful occupational activities for all these people it is going to require the development and use of the most appropriate types of labour-intensive technologies to enable them to become productive. It is the view of the Committee that agriculture and related industries have the highest capacity for creating jobs in the rural areas. It must be emphasized that general conditions and incomes in these areas must be made attractive enough to reduce rural-urban migration.

It must also be borne in mind that most of Kenya is not suitable for agriculture. The arable land carries very high and increasing densities of population. Many of the areas are also geographically inaccessible. When these factors are considered in relation to the pressure imposed by the rapidly rising population, the question of how many people can derive their livelihood from agriculture in the rural areas becomes a critical one requiring careful planning and management. This means that it may not be possible for all products of formal education to find productive occupations in agriculture as such. The population is rising at the rate of 400,000 to 500,000 a year but only about 100,000 people are being absorbed into urban and rural employment. The Committee would therefore like to emphasize that the problems of creating rural and urban employment must therefore also be considered in relation to a carefully worked out public education and policy regarding and related to population pressures. Furthermore, these must also be dealt with in relation to clear national policy on conservation aimed at preventing indiscriminate destruction of the natural resources due to population and economic pressure. The Committee therefore noted with great satisfaction the timely directive by President Kenyatta to all Government Ministries and departments for the enforcement of all existing conservation laws and for enacting new ones where necessary. The directive was given as part of the President's address on the occasion of the 1976 Kenyatta Day.

It must be constantly reiterated that the majority of people in rural areas are very poor and do not have the necessary knowledge and resources to effect increased production in agriculture. As a result of their poverty the majority of rural people live in the vicious circle of poverty, ignorance and

ill health, all of which make them vulnerable to exploitation. The Committee would therefore like to emphasize that rural areas may not be able to absorb more people without resources being invested there to raise the standard of living of the poor to enable them to be effective in agricultural production. Priority should therefore be given to uplifting the productive capacity, motivation and quality of life of rural populations. The investment should be primarily aimed at agriculture and agriculturally based commercial, industrial and other activities that are essential in raising the quality of life of the people and environment of rural conditions.

### 3.1.1 Rural-Urban Migration

In spite of the presence of large numbers of unemployed and underemployed people in rural areas, there are often very severe shortages of labour to plant, cultivate, harvest and transport agricultural products. One of the reasons for this is the extensive migration of people, especially the youth, from rural to urban areas. This situation is in turn largely determined by the patterns of incomes which allow and promote urban salaries which are very much higher than those earned in the rural areas. Since the attitudes of the youth, the parents and the community in general are very heavily determined by the income patterns, it would be essential to improve the pattern of distribution of incomes and pricing structures to change these attitudes. In particular, the marketing of products and the prices offered to producers need to be stabilized to prevent and reduce the inevitable flow of human and financial resources from rural to urban areas. It is the view of the Committee that this would require the allocation of resources to effect the necessary logistical measures.

### 3.1.2 Extension Services

Extension services have been one of the main means of reaching rural communities, especially the farmers, and exposing them to improved methods of production. In practice, however, this has been aimed at reaching the more progressive farmers. This practice was developed as a result of a policy dating back to 1954 when the Sywnnerton Plan identified the then African areas as potentially important agricultural land. Extension work has since then concentrated on the farmer who has been progressive. Although the extension workers have increased into a force of about 20,000, the majority of those who are in contact with the rural public are the least trained. There is also little or no co-ordination between the teams of extension officers and those of other field workers. The farmer is often subjected to a confusing multiplicity of ideas resulting from large numbers of unco-ordinated visits by extension workers.

The Committee considers that the most urgent need is to cater for the majority of the rural public who are very poor and who have no capacity to benefit even from the instructions of extension workers.

It is one of the aims of the planned integrated development programme to reach the majority of the rural populations. This programme is supported by a package of such facilitating inputs as fertilizer and credit facilities which the farmer requires in order to put the teaching of the extension worker into practice. The next important input required by the farmers are appropriate technologies which are suited to the real needs of rural conditions and which can be operated by rural people to increase their productive capacities and that of their land. The Committee has recommended elsewhere in this report that the necessary research for the design and development of these labour-intensive technologies should be facilitated and controlled by Government.

In view of these requirements, the question still remains as to whether or not it is worthwhile to invest resources in schools to teach agriculture in the hope that the youth will return to rural areas to develop agriculture. The current teaching of agriculture, especially in secondary schools, has developed into an examination-orientated, certificate-earning academic type of education. It is not related to positive agricultural production. But even if it was there may not be the land required for use by all the school-leavers who have studied agriculture. Furthermore, the teaching of agriculture and technical subjects is a relatively expensive investment which should be planned in relation to expected returns.

It is the view of the Committee that it is uneconomical to invest resources in the teaching of agriculture and technical subjects in secondary schools purely as subjects for obtaining school certificates. If their teaching is to be continued it must be related to real life situations, employment opportunities and production of serviceable goods.

School-leavers need to be rationally distributed among a system of widely based, skill-training, post-school institutions to acquire the skills that are appropriate to occupational activities in agriculture, commerce, conservation and basic industrial activities.

In the opinion of the Committee it will also be necessary to technicalize the teaching of the formal subjects of Mathematics, Kiswahili, English, Science and other school subjects with the appropriate language that lays emphasis on the realities of agriculture, commerce, conservation and family life to enable youth to solve personal and social problems and to enhance their potential for self-reliance.

### 3.2 Goals and Programmes of Action

#### 3.2.1 Allocation of Resources for Integrated Rural Development

In view of the interrelated nature of the problems of rural communities, it is evident that even the measures for solving them must be concerned with and arrived at from co-ordinated planning as suggested in the following recommendations. The physical facilities available in institutions which are located

in the rural areas such as Farmer Training Centres, District Development Centres as well as schools are normally under-utilized. The Committee would like to see them being used for programmes of integrated rural development as well as for their normal use. This would require co-ordinated scheduling. It is the conviction of the Committee, however, that the success of the following recommendations will depend on the concerted effort of the whole Government.

*Recommendation* 61

*To direct resources and incentives through an integrated approach to rural development with a view to promoting employment creation in the rural areas through farming and non-farming activities giving high priority to low cost, labour-intensive development programmes, which yield high returns on low capital input.*

*Recommendation* 62

*To use the Farmer Training Centres, school facilities, District Development Centres and other public institutions as instruments for integrated rural development.*

### 3.2.2 Integration of Educational Institutions with Rural Environment

Since education is part of the environment in which the educational institutions are located, it is essential that the lives of these institutions are fully integrated with the lives and activities of the communities around them. Yet today, a school may have absolutely nothing to do with its environment. The following recommendations point out the need for integration of educational institutions with their surroundings.

*Recommendation* 63

*To make the educational system respond to the need to meet the educational expectations of the rural population in terms of general or basic education (literacy, numeracy, elementary science and environmental studies); community improvement education and occupational education (agriculture, agro-crafts, commercial activities, services and home crafts).*

*Recommendation* 64

*To integrate education and training with the local environment and to strengthen the teaching of agriculture, animal husbandry and home science by making their scientific principles an examinable subject.*

*Recommendation* 65

*To relate education in the semi-desert areas to the need to improve the environmental conditions and to development of productive livestock industry and other resources in those areas.*

*Recommendation* 66

*To investigate ways in which Harambee schools may be more closely integrated with the development of their localities.*

### 3.2.3 Co-operative Education

The co-operative movement in the country has demonstrated its effectiveness and potential for stabilizing the economic conditions in rural areas. Without such co-operative organizations the rural people become vulnerable to subtle exploitation and the adverse effects of price fluctuations. Lack of facilities for storage and transport of their products can also adversely affect rural populations. The co-operative movement has been of great assistance in providing many of these facilities. The Committee therefore proposes the intensification of co-operative education and greater assistance in the operation of co-operatives in rural areas.

*Recommendation* 67

***To intensify co-operative education, with particular emphasis on business skills, and to give more help to farmers through the financial institutions.***

## CHAPTER 4—EDUCATION AND EMPLOYMENT

### 4.1 Evaluation

One of the largest problems confronting the country is that of unemployment. This problem is aggravated by the annual output of school-leavers whose numbers continue to swell following the enormous expansion of the education system in the first ten years of independence. Although a considerable amount of success has been achieved within the last decade, employment creation is expected to loom large among the economic problems to be solved in future.

The concern of the Government has been aroused by the increasing appearance of large numbers of individuals whom the formal educational system has not equipped with the skills and qualities required by the economy. Furthermore, these individuals are competing for relatively fewer openings in the modern sector of the economy. The number of jobless school-leavers is increasing. The formal qualifications demanded by the employers are rising rapidly in number and usually bear no functional relationship to the job concerned. The period required to qualify for employment continues to lengthen.

Unemployment generally refers to lack of income-earning occupations or opportunities. The situation of urban joblessness is associated with the rate of population growth and job creation, movements of job seekers, frustration, criminology and drug addiction. Large numbers of young people in Kenya's urban areas are reported to be unemployed and have a tendency to resort to socially disruptive activities to sustain their survival. It has been observed, however, that urban areas generate only a small proportion of the required employment opportunities. The Committee therefore endorses the observation that employment opportunities for the great majority of these people will have to be found in the rural areas.

The situation regarding unemployment in rural areas is related to landless job seekers, idlers, and squatters who do not control the resources. There are many of these in spite of land settlement schemes and the number is reported to be growing every year. The Committee has proposed elsewhere in this report that the creation of income-earning opportunities for the majority of people in the rural areas will require the creation and use of technologies appropriate to Kenya's level of development.

Under-employment normally refers to the situation in which the people make such small incomes that they do not make any meaningful living. These situations are found generally in the dry marginal areas in the northern parts

and in the frequently flooded western parts of Kenya. The Committee would nevertheless like to point out that even in many of the arable areas there is still under-employment due to lack of proper utilization of land.

The school-leaver fits into all these categories, especially the primary school-leaver who does not go on to secondary school. In 1964 it was found that out of 103,000 KPE candidates, some 67,000 (65 per cent) would not be offered secondary school or vocational training places. In the 1975 CPE out of 220,000 candidates about 150,000 (68 per cent) are in the same difficulty. The numbers of primary school-leavers who do not go to secondary schools have therefore been increasing each year. A similar situation exists with regard to secondary school-leavers.

One view on the relationship between education and employment is that education has not been related to the realities of the country. According to this view, the curriculum has not incorporated the teaching and learning of creative capability and has therefore tended to alienate youth against the realities of their surroundings. This in turn creates frustration by widening the gap between aspirations and achievement in wage employment in which they have put all their expectations. Going back to work in rural areas becomes unacceptable, even when they fail to get wage employment.

The other view is an economic one and says that not enough resources have been directed towards the creation of jobs while relatively too much has been spent on education. This view also says that not enough has been done to transfer technology to rural areas.

The Committee endorses the view that education has been orientated towards wage employment and has not prepared people for self-employment which is one of the realities for the great majority of people. To achieve this objective it would be necessary to view education and training as a coherent system of social development preparing all people with relevant adaptive skills to enable those who leave school at any level to be self-employed. For this reason the Committee would like to see work interludes organized for students so as to provide them with the experience required by the kind of occupations they are likely to go into. The need to acquire adaptive skills and work experience will mean a closely co-ordinated organizational system to ensure that the academic programmes are appropriately balanced with skill and work training. The National Youth Service is a good example of job creation, motivation and training towards self-reliance. The Starehe Boys Centre in Nairobi is also a good example of what can be achieved by a high level of motivation towards a sense of service and self-reliance. In the case of the Starehe Boys Centre, these attributes are also well supported by academic levels of education equivalent to the best available in public schools in the country. The Committee has proposed elsewhere in this report that a national machinery be established to co-ordinate the multiplicity of existing and planned youth activities in relation to national development needs.

There is a great need to educate the youth, parents and the public in general not to expect that formal education will automatically lead to high wage employment. The positions of high levels of income are largely filled up but school-leavers still expect to get similar positions. It is the view of the Committee that the realities of this situation need to be explained better to the public.

An even more worrying situation has been the trend of unemployment among products of technical secondary schools as indicated by a recent survey carried out by the Ministry of Education. This problem is discussed at greater length in the chapter on secondary education.

Similarly there is increasing evidence that products of village polytechnics and the Christian Industrial Training Centres are also beginning to experience difficulty in getting employment. The Committee was informed that a great number of them have failed to secure wage employment and some of those who did so were employed in jobs unrelated to the skills they had acquired. The Committee was, however, made to understand that the original intention in establishing the village polytechnics was to train school-leavers for self-employment in rural areas rather than for wage employment. The Committee therefore noted with satisfaction the efforts being made by some institutions such as the Ahero Village Polytechnic which has a commercially viable co-operative attached to the training institution. The village polytechnic is thus able to demonstrate to its trainees the processes of production of goods for which there is a demand and hence a market. It is the view of the Committee that this kind of production oriented education and training does facilitate self-employment. It will provide the trainees with the opportunity to learn management techniques. It must be remembered that these trainees are very young and inexperienced and that they will need to be assisted with credit and other facilities in setting themselves up in self-employment.

At the post-secondary level, it has also been observed that increasing numbers of university graduates in arts, law, some areas of commerce, and land and building economics are experiencing difficulties in getting employment. Although some of the arts graduates have been absorbed into teaching, this cannot be expected to go on for very long. For example, it is reported that the 1,100 B. Ed. (Arts) graduates who are joining secondary school teaching in 1976 and 1977 far exceed the proportionate requirements for arts teachers in Government secondary schools. The surplus will probably seek employment in harambee secondary schools thereby magnifying the heavy arts orientation of education there. This is compounded by the observation that many of these graduates are not really interested in teaching. They have only gone into it after failing to secure other educational and occupational opportunities. It is the strong view of the Committee that these and other problems will not be solved unless the Government gives clear guidelines to the educational and training institutions regarding the requirements

for manpower in the country. This will in turn call for a real effort to be made to co-ordinate Government planning much more closely in regard to education and training. The Committee has made strong proposals in this regard elsewhere in this report.

These are some of the overt results of the present formal educational system in relation to the employment prospects of their products. Many modifications have been introduced into the system since Independence but these do not seem to have been effective in bringing about the desired social, economic and cultural changes, apart from those of quantitative expansion within the system.

## 4.2 Goals and Programmes of Action

### 4.2.1 Generation of Employment

Employment creation has been recognized by the Government as being one of the main problems in the country to be solved in future. It is evident that the creation of adequate numbers of jobs is not likely to be possible within the modern sector of the economy where job creation is very expensive. It is also in the modern sector where there is the tendency to use capital intensive technology which often drastically restricts the number of persons that can be absorbed.

For a developing and primarily agricultural country like Kenya employment creation must therefore be orientated towards labour intensive programmes and technology. In Kenya this means investing more resources into agriculture and other directly productive activities. It also means making the public aware of the importance of agriculture and its related industries and imparting managerial skills among the Kenyans to enable them to perform these tasks.

The following recommendations are related to this need of generation of employment.

*Recommendation* 68

*To orientate national development towards employment generating activities to absorb the products of education.*

*Recommendation* 69

*To give top priority to employment creation in allocating resources.*

*Recommendation* 70

*To give the necessary legal advice to the public on such subjects as inheritance, access to basic resources, loans, product design programmes and local market research in order to eliminate bottlenecks to employment creation in the rural areas.*

### 4.2.2 Job Opportunities and Academic Certification

The attitudes of school-leavers, their parents and the public in general, have been largely directed by the belief that an academic certificate automatically leads to wage employment in the modern sector. This belief has been reinforced by the practice of awarding many jobs on the basis of an academic certificate. The Committee feels that this practice must be changed so that rewards are related to ability, efficiency, initiative and merit.

The following recommendations are made to deal with this situation.

*Recommendation* 71

*To redefine the educational requirements for occupations and to redefine selection and promotion criteria (educational and non-educational).*

*De-emphasize job rationing by educational certification and promotion on the basis of academic advancement.*

*Create promotional and retraining opportunities for upward mobility for all employees regardless of the level at which their formal education was terminated.*

*Create mobility for occupational opportunities on the basis of merit rather than just on years of formal schooling.*

### 4.2.3 Self-employment

In view of the large and increasing numbers of unemployed school-leavers in the country, and the fact that most of income-earning opportunities will have to be based on self-employment, education and training should increasingly equip a large majority of Kenyans to be self-employed. This will require considerable changes in the organizational set-up to facilitate such a development in the rural and urban areas.

*Recommendation* 72

*To establish local planning bodies to design self-employment programmes in which the common elements should be attitude reform, skill training, management training and accounting.*

### 4.2.4 Informal Sector

This sector consists of the large number of non-agricultural activities which are undertaken in both rural and urban areas but do not belong to the modern formal sector of the economy. It is a highly productive sector of the economy based on self-employment and informal apprenticeship training. It is characterized by small-scale, labour-intensive provision of goods and services aimed largely at people with low incomes. A very sizeable percentage of the people in this sector are engaged in manufacturing and repair activities. Others are small-scale business operators.

It is however true that this sector continues to grow under its own motivation with little or no support from the Government due to the predominant influence of the modern sector. In the 1973 Sessional Paper No. 10 on Employment the Government acknowledged that there was in fact much counter-productive harrassment of the informal sector and undertook to stop it. The Government furthermore undertook to ensure that the informal sector was provided with sufficient credit facilities and management and technical services in recognition of its essential role in national development.

The Committee therefore urges the Government to accelerate the enforcement of the necessary legislative and administrative measures to abolish harrassment and instead facilitate growth in this sector.

*Recommendation* 73

*To institute and enforce the necessary legislative and administrative measures which facilitate growth of the informal sector.*

*Amend existing legislation, by-laws and administrative measures which hinder growth of the informal sector.*

*Institute legislative measures and administrative procedures to remove bias against the informal sector vis-a-vis the formal sector.*

*Deal especially with housing, trade licensing, production and use of labour-intensive technology, credit facilities, management and technical services and unnecessary harrassment.*

### 4.2.5 Labour-intensive Technology

Economic development has been characterized by heavy dependence on the requirements of the modern sector. It is here that capital-intensive technology has increasingly restricted the use of labour-intensive technology. A programme of employment creation must therefore be based on the creation of the kind of labour-intensive technology that can be used and serviced as far as possible in rural areas where it is needed to facilitate development. This kind of technology cannot be created and used without Government intervention to ensure fair competition with capital-intensive technology.

There has been a very real tendency to rely on the kind of technology which is required and determined by the modern sector of the economy, including the large multinational organizations. While the Committee recognises that the Government has done a lot to rectify the imbalance created by technical developments which favour technology which is capital-intensive, much still remains to be done. In particular, the Government's own pricing, trade, tariff, and other policies still favour modern sector capital-intensive activities. All this results in unemployment and unfair competition for labour-intensive technology. It is the view of the Committee that the Government will therefore need to exercise greater encouragement and control over the design, production and use of the most appropriate labour-intensive technology.

*Recommendation 74*

*To exercise greater Government control over production techniques of industry in Kenya to encourage the development and use of labour-intensive methods.*

### 4.2.6 Manpower Development

". . . the urgency of the need for high and middle level manpower has diminished considerably since Independence and the rate of expansion of secondary and tertiary levels of education can be reduced toward the requirements for normal growth. There should be no serious problem encountered in reducing the growth in expenditure at these levels of education. Indeed the difficulties which apparently exist can be traced primarily to pressures to exceed Development Plan targets." (*Republic of Kenya,* 1975.)

This statement by the Government was made in 1975 to indicate the planned shift in educational development after the first ten years of independence. Secondary schools were greatly expanded during the first decade of independence to provide badly needed manpower for the modern sector of the economy. The manpower requirements for this sector are, however, limited and will probably continue to be limited during the second and subsequent decades of independence.

In the meantime it has become evident that the future pattern of national development must depend on greatly accelerated rural development. This will in turn depend on creation of employment opportunities, including self-employment, for which it will be necessary to expand and diversify secondary education to orientate and enable youth to go into self-employment.

The current nature of education and training, combined with a wage structure which disproportionately rewards academic schooling, has produced a distorted pattern of skill provision. This is exacerbated by the lack of co-ordination and direction within the Government in provision of training and skill development. The Committee would therefore like to emphasize the necessity to assess the extent to which the pattern of skills in the country has corresponded with the national needs with a view to suggesting relevant corrections where necessary.

Manpower planning and development has tended to be determined by the traditional requirements of the modern sector of the economy. Yet Kenya's national development is very heavily dependent on the productivity of the enormous human resource that is located outside the modern sector, especially in rural areas of the country. Furthermore, the modern sector is a restricted area of occupational opportunities that cannot be expected to offer all the employment required to meet the needs of the people. Increasing capability for self-employment has subsequently become a necessity at all

levels of social and economic development. The question therefore remains as to whether manpower planning and development has taken those features into consideration. The Committee has come to the conclusion that manpower planning has concerned itself only with the segments of manpower requirements for the modern sector and has therefore made the following recommendations to help in solving this problem.

*Recommendation* 75

*To review the present pattern of curriculum offerings throughout the education system.*

*Consolidate and establish a pattern of preparation which takes explicit account of the ultimately desired ratios between craft, technician and technologist/graduate skills on the basis of a skill pyramid which is relevant to national needs.*

*Recommendation* 76

*To expand and diversify new secondary education in relation to manpower requirements for development.*

*Recommendation* 77

*To concentrate on acquiring an intimate knowledge of the extent and nature of existing training provision of all kinds including the non-formal, and of current and projected demand and supply position, both qualitative and quantitative, in the market for skilled labour including the demand for replacement of foreigners.*

*Recommendation* 78

*To publish on an annual basis a manpower and vocational education statistics and to use job analysis and tracer studies more widely.*

*Recommendation* 79

*To provide precise guidance in the Development Plan of the kind of specific skills which are required.*

## CHAPTER 5—ACCESS TO EDUCATION

### 5.1 Evaluation

Imbalances of access to educational opportunities do exist in the country between provinces, between districts and divisions in the same provinces and between the sexes. In each situation there are historical, social, economic and environmental factors which are responsible for their occurrence and which must be taken into consideration in trying to reduce the imbalances.

With regard to regional imbalances, the Committee has looked at the problem by paying particular attention to the situation pertaining to the nomadic and other disadvantaged communities.

One of the chief characteristics of the way of life of the nomadic communities is that they do not settle in any one place. They have to keep on moving in search of water and pasture. This is particularly so of the communities that live in what had formerly been demarcated as the closed districts of the Eastern, Northern-Eastern and Rift Valley provinces during the colonial years.

Movement into and out of the districts was restricted. Because of the complete restriction of movement into and out of these districts the people of the area tended to become isolated from the rest of Kenya and the developments that were going on there. This resulted in social and economic problems that have had to be dealt with by independent Kenya.

Most of these districts lie between the equator and latitude 4° North except for the present Garissa District which extends to latitude 2° South. The area borders with Somalia in the East, Ethiopia and Sudan in the North and Uganda in the West.

On the eastern side the people consist of the Ogaden, Degodia, Ajuran, Murule, Garre and other smaller groups who are related ethnically to the Somali. In the Marsabit District there are the Boran, Orma, Sakuye, Gabbra, Rendille, Geluba and El-Molo. In the west are the Samburu-Maasai, the Pokot and Turkana.

Apart from the Somali groups who were mainly Moslem, these people did not have the kind of religious or educational influences that people in the rest of Kenya were having during the colonial years.

During the Second World War, however, the soldiers from these areas travelled extensively in Kenya, Uganda, Tanzania, Ethiopia, North Africa, India and Burma. There they mixed with soldiers from these and other countries. Through these contacts and exchanges they realized that their own communities were lacking in education and other basic services. The soldiers

themselves learnt how to read and write. It was therefore natural that after the Second World War, these ex-soldiers were able to make constant requests to the colonial authorities to establish schools in these areas.

It was not until 1947 that the very first primary school was started by the colonial government at Isiolo. In 1948 the second and third primary schools were started at Garissa and Wajir respectively. These schools only went up to Primary 4 at which the then terminal examination called the Common Entrance Examination was done.

It must be remembered that primary and secondary schools had been established in other parts of Kenya several decades before. But it was not until 1953 when the first Intermediate School (Primary 5 to 8) was started at Wajir to take those who passed the Common Entrance Examination from the other three lower primary schools. In 1955 the fourth primary school was opened in Mandera. Others were later started in Marsabit, Maralal and Lodwar.

All these schools were made boarding institutions because of the nomadic ways of life of the communities there. This nomadic way of life had in turn been determined by the environmental conditions of the areas since time immemorial. The area is a dry semi-desert with an average rainfall of 250 mm. (10 inches). The land is generally flat with rocky hills, sandy soil and scattered thorny bush on what is mostly bare land.

These environmental conditions have been unsuitable for growing crops and settled dependence on agriculture. The communities have therefore traditionally depended on keeping domestic animals that can survive in these conditions. But because of the scarcity of water and pasture they have had to adopt a nomadic way of life, moving from place to place in search of pasture and water. It is the view of the Committee therefore that the development of education and training in these areas must take these factors into consideration.

It was in these geographically and socially isolated conditions that the nomadic people of northern Kenya were living when Kenya achieved Independence in 1963. At Independence the area was then subdivided between three provinces. Thus Garissa, Wajir and Mandera to the east became the North-Eastern Province with its headquarters in Garissa. Isiolo and Marsabit became the northern part of the Eastern Province and Samburu and Turkana became the northern part of the Rift Valley Province.

The former restriction was removed and free movement to and from the area was permitted. The Kenya Government embarked on social and economic development. But this was temporarily slowed down during the Shifta disturbances of 1964 to 1967 which started as a result of external claims that the Somali people in Kenya and the geographical parts they inhabited belonged to Somalia. Normal development activities were resumed in 1968.

At the time of the work of the Committee in 1976 there were 205 primary and 15 secondary schools in the area alone. There are now also day schools as well as the old boarding schools in the region as a whole. The schools in the urban areas and larger trading centres have reasonable enrolments. This is partly because they cater for the children of traders, civil servants and other types of settled workers. The Committee is therefore satisfied that a great deal has been done by the Government since Independence to create educational opportunities in these areas. The Committee noted, however, that the schools in the rural areas there continue to have varying and uneconomically low enrolments. It was evident that lack of water was one of the most important factors in bringing about this situation. The Committee noted that it was during 1976 that the first Somali girl from the area was admitted to the University of Nairobi. It is the view of the Committee therefore that a great deal remains to be done to improve the educational opportunities in these areas and get the people to use them. This cannot, however, be achieved without first providing such basic necessities as water. With regard to getting people to use educational opportunities, there are social factors which need to be changed. In particular, there is need to ensure equality of access to education between the sexes. The Committee therefore reiterates the importance of the integrated rural development approach to the problems of this area.

The Committee would also like to point out that similar and often serious imbalances do exist at locational, divisional and district levels within the same provinces. The factors determining these imbalances need also to be carefully analysed province by province, especially parts of the Rift Valley, Eastern and Coast provinces, if success is to be achieved in creation and use of increased educational opportunities.

Another major area of imbalance in educational opportunities is that found between the sexes, with the education of women being much less developed than that of men. The underlying reasons have been the traditions, beliefs and prejudices held by people regarding the roles and occupations of women in society. Many of the popular assumptions held about the nature and place of women in modern society are a legacy of universal traditions of humanity. In this respect Kenya shares with many other countries of the world what is basically a universal human problem. It is nevertheless true that each country must find its own answer to it.

Although the traditional assumptions about women are not intentionally malicious, through them a lot of men have developed the kind of prejudiced attitudes which make them come to despise women in general. Yet it is because of some of these traditional assumptions that the patterns of opportunities for education and careers today are characterized by requirements which constitute limiting factors for women.

Modern society in general, and a developing country like Kenya in particular, will not be able to solve its problems of survival and enhancement of the quality of life unless many of these rather restrictive traditions are modified or abolished. It must be remembered that the prominent life pattern for the majority of women, even for those who have had good education and training, will include essential family responsibilities. In terms of careers this means a life of multiple roles and occasional interruptions. Yet these roles are essential to human survival and to the personal fulfilment of women.

If a country is to be able to utilize fully the talents of its women who constitute about half of the population, it must be remembered that one of the features of modern careers is the need to have acquired adequate formal education and subsequent training. In Kenya, the majority of educated women have tended to go into nursing, secretarial and teaching careers. It is the view of the Committee that this restrictive trend needs to be evaluated and the desirability of encouraging women to go into other careers be determined. There is thus need to ensure that career prospects for men and women are made similar and that these prospects are clearly explained to girls through improved guidance and counselling in schools. Furthermore, there is need to change the attitudes of the public in general and the employers in particular towards the role of women in society.

The Committee noted that since Independence there had been a tremendous improvement in enrolments of girls in primary schools. However, this trend is not continued in secondary and tertiary education, especially in the post-secondary training institutions. The factors underlying this situation include the reluctance of many parents to educate girls when faced with the choice between educating them or their brothers. This attitude is partly influenced by the traditions of a primarily patrilineal family system in which the girl will eventually leave her parental home to be married. To many parents therefore the education of boys is a better investment than that of girls for whom primary education is often considered sufficient as its completion coincides with biological maturity for marriage. In close relation to this expectation for marriage girls tend to be given many more chores in the house than boys thereby reducing the time they spend studying compared with boys.

A small but important factor relates to the drop-out of girls from secondary schools due to pregnancy. It is the view of the Committee that this problem must be tackled through a responsibly worked out programme of education on family life and responsible parenthood. The Committee was made to understand that a programme of this kind was being worked by the National Christian Council of Kenya in close consultation with the Ministry of Education. It must, nevertheless, be remembered that this is an area which relates very closely with the ethical responsibility of parents over their children and would therefore require direct involvement of parents and other competent members of the community.

In the long run, the society must recognize that interruptions due to child-bearing activities are part of a woman's life. The Committee would therefore like to see arrangements made so that when a woman has to interrupt her training or career because of children, her future programme for continuation is discussed and possible alternatives that she could take considered.

## 5.2 Goals and Programmes of Action

### 5.2.1 National Educational Standard

There is a multiplicity of factors which determine the ease with which people have access to education. These need to be dealt with so as to reduce imbalances. There is also a wide variety of standards of educational levels between different parts of the country and between educational institutions. There is no clearly defined national standard which all educational institutions are expected to attain. In view of the wide variety of public, private and Harambee educational institutions, the Committee proposes that such a national educational standard be defined to guide the future development of educational activities and institutions.

*Recommendation* 80

*To define a national educational standard and to require all schools to attain this standard.*

### 5.2.2 Regional Inequalities

From an economic point of view, development resources tend to be invested where they will yield the largest increase in net output. This approach tends to favour the development of areas that have abundant natural resources, good land and rainfall, transport and power facilities and the necessary human resources. Yet the fundamental purpose of national development is to effect social improvement of the lives of the people in the country as a whole.

It is in relation to regional deficiencies in human resources that investments in education and training are of paramount importance. The direction and control of such investments is the responsibility of the Government. This is particularly so in areas where the people adhere strongly to their traditional modes of life and do not make full use of existing educational facilities.

The Committee would like to see these regional imbalances in education being reviewed regularly to find ways and means of reducing them.

*Recommendation* 81

*To develop adequate boarding facilities in schools to cater for children of nomadic parents.*

*Recommendation* 82

*To reduce regional inequalities of educational opportunities.*

*Raise indices of opportunities for disadvantaged areas.*

*Make extensive use of radio, television and other forms of mass media to improve general education in rural areas.*

*Redress imbalances in wealth and income-earning opportunities.*

*Develop a balanced programme covering access to education at all levels and to employment.*

*Recommendation* 83

*To equalize as far as possible the index of opportunity for secondary education by increasing primary education in the less developed areas first, followed by secondary education opportunities in boarding schools.*

*Recommendation* 84

*To continue to take into account the special needs of less developed regions of the country during selection procedures.*

### 5.2.3. Education of Women

About half of the human resources required for national development consist of women. Furthermore, women in a developing country like Kenya are directly responsible for most of the productive activities, especially in agriculture and general family and community welfare. Yet it is well known that the general status of the education and skills of women has lagged far behind that of men. It is the view of the Committee that if national development is to be maximized the basic knowledge and skills possessed by women should be at least equal to that of men. But in view of the fact that women are also biologically responsible for bearing and rearing children, basic educational and skill attributes acquired by women need to be continually supplemented by lifelong and effective non-formal learning.

*Recommendation* 85

*To make secondary education co-educational.*

*Recommendation* 86

*To increase opportunities for girls in science.*

*Recommendation* 87

*To provide for compensatory enrolments for women at the post-secondary and university levels of education.*

*Recommendation* 88

*To increase non-formal education and training for women, with particular emphasis on their economic roles.*

*Recommendation* 89

*To evolve an integrated structure of non-formal education and training at national and local levels and to give emphasis to the role of women in the economy by recruiting more of them as agricultural and extension officers.*

*Recommendation* 90

*To improve the careers guidance programme in the schools, especially for girls.*

*Recommendation* 91

*To equalize as far as possible the index of opportunity for secondary education between boys and girls by providing more boarding places and bursaries for girls in public secondary schools.*

### 5.2.4 Private High Cost Schools

The Committee was made to understand that there was concern regarding a number of private schools that were tending to develop on racial lines. The result has been the production of school-leavers who have difficulty in relating their qualifications to those attained in Kenyan schools. Many private schools were also known to be charging very high fees, thereby making it impossible for the great majority of Kenyan children to benefit from them. Private boarding schools are even more expensive. It is the view of the Committee that private schools should be allowed to continue. The Committee would nevertheless urge that the education offered in all schools in the country, including private ones, be carefully regulated in the interests of the country without jeopardizing the interests of those non-citizens whose children will have to continue their education in other countries.

*Recommendation* 92

*To allow private schools to continue but to make parents who choose private schools for their children to pay the cost.*

*Recommendation* 93

*To regulate the syllabi and curricula of private schools and to keep the public informed about their quality and the opportunities they lead to in careers and further study.*

### 5.2.5 Foreign Qualifications

The relative shortage of opportunities in tertiary educational institutions has resulted in large numbers of students going to foreign countries to acquire further education. Many of the Kenyans returning with foreign qualifications experience difficulty in relating their qualifications to occupational opportunities. This results in frustration. The Committee therefore urges that a machinery be set up to guide those going abroad on the kinds of educational patterns that are most likely to be useful in Kenya. With regard to those who return with foreign qualifications, the Committee would like to see a properly standardized national system for assessing them so as to relate them to job opportunities and reduce wastage and frustration.

*Recommendation* 94

*To evaluate non-Kenyan qualifications obtained by those who are educated outside the national education system in relation to national standards.*

TABLE 5.1—A REGIONAL OPPORTUNITY INDEX FOR SECONDARY EDUCATION

(*a*) Aided Schools Form I Admissions in 1975 as a Percentage of C.P.E. Candidates in 1974.

| | C.P.E. Candidates | Aided Form I Admissions | Opportunity Index |
|---|---|---|---|
| Central .. .. | 49,300 | 6,100 | 12½% |
| Coast .. .. | 12,000 | 2,300 | 19½% |
| Eastern .. .. | 41,400 | 4,600 | 11% |
| Nairobi .. .. | 8,400 | 1,900 | 22½% |
| North-Eastern .. | 560 | 230 | 41% |
| Nyanza .. .. | 41,700 | 4,600 | 11% |
| Rift Valley .. | 30,700 | 4,000 | 13% |
| Western .. .. | 30,700 | 3,900 | 12½% |
| NATIONAL .. | 215,000 | 27,600 | 13% |

**Sources, Notes:**—*See* foot of Table 5.2.

TABLE 5.2—A REGIONAL OPPORTUNITY INDEX FOR SECONDARY EDUCATION

(*b*) Aided Schools Form I Admissions in 1975 as a Percentage of Children Aged Thirteen.

| | Children Aged Thirteen | Aided Form I Admissions | Opportunity Index |
|---|---|---|---|
| Central .. .. .. .. .. .. | 49,900 | 6,100 | 12% |
| Coast .. .. .. .. .. .. | 25,500 | 2,300 | 9% |
| Eastern .. .. .. .. .. .. | 53,300 | 4,600 | 8½% |
| Nairobi .. .. .. .. .. .. | 11,100 | 1,900 | 17% |
| North-Eastern .. .. .. .. .. | 7,100 | 230 | 3% |
| Nyanza .. .. .. .. .. .. | 66,700 | 4,600 | 7% |
| Rift Valley .. .. .. .. .. | 65,500 | 4,000 | 6% |
| Western .. .. .. .. .. .. | 43,200 | 3,900 | 9% |
| NATIONAL .. .. .. .. | 322,300 | 27,600 | 8½% |

**Sources:** Ministry of Education Annual Reports and Examinations Section.

NOTES:

(i) The opportunity indices calculated in Tables 5.1 and 5.2 are approximations only because available data are not reliable.

(ii) The opportunity indices take account of known movements of children between provinces to obtain secondary education.

(iii) The data contained in Tables 5.1 and 5.2 compare provinces. There are marked differences in opportunities between and within districts which cannot be measured with available data.

# CHAPTER 6—BASIC EDUCATION

## (Primary and Junior Secondary)

In principle, the Government accepts the reform proposed for primary education which includes a lengthening of the course from seven to nine years, a consequent significant augmentation of facilities, a new examination, a new curriculum and a considerable amount of teacher retraining. It is intended that these reforms will be phased in as resources become available. (*Republic of Kenya,* 1973.)

### 6.1 Evaluation

The Committee has considered this policy statement of the Government which was made as a response to the report made by ILO in 1972. It was made clear to the Committee that the reason why the proposal to lengthen primary education to nine years had not been implemented had been a financial one. This constraint of finance has continued to be a major factor, especially as a result of the economic problems caused by inflation. But for reasons explained later in this chapter the Committee considered it desirable to provide a nine-year basic education which is available to all Kenyan children and is terminal for the majority of them. The Committee came to the conclusion that the most feasible way of doing this will be to establish a two-year junior secondary section attached to primary schools and to remove the present Form I and II from secondary schools.

The present system of primary education is in fact a terminal form of education for the majority of Kenya children who will inevitably have to survive on means related to that level of education.

For example, in December, 1975, some 220,000 Kenyan children sat the Certificate of Primary Examination. In January, 1976, about 70,000 of them were admitted to aided and unaided secondary schools. There is also a high rate of dropout from various classes before completion of the full seven years. Such children very quickly become illiterate and some of them go into socially disruptive activities as they mature. The rest continue to swell up the growing numbers of unemployed youth. The question, therefore, remains as to how basic education should be modified, diversified, optimised, and supplemented in order to cater for this majority of children who do not go to secondary schools. The minority who manage to go to secondary schools will hopefully improve their chances of entering the modern sector employment. These problems are reviewed in the following sections and recommendations made for dealing with them.

## 6.2 Goals and Programmes of Action

### 6.2.1 Objectives of Primary Education

To determine the optimal objectives and structure of the first cycle of education (Pre-primary, Primary, Junior Secondary) implies designing the most favourable structure which is guided by the nation's economic, social and cultural values. In the tradition of mutual social responsibility every member of society is expected to contribute to the development of society to the fullest extent possible. Optimising the first cycle of education, therefore, also means designing the structure most favourable to enhancing the basic capabilities of the nation's human resources and hence the effectiveness of their contribution to the nation's development. The effectiveness of such contribution depends very largely on the acquisition of the adaptive knowledge, attitudes and skills that are relevant to the social and economic environment in which the school-leavers will live and work.

The question, therefore, is whether it is in primary schools that a diversity of adaptive skills in such basic fields as agriculture, carpentry, home science, fishing, pottery, basketry, forestry, elementary mechanics, and typewriting should be taught. The Committee made the following recommendations regarding the objectives that primary education should achieve.

*Recommendation* 95

*To continue teaching Primary* 1 *to* 3 *for the objective of enabling the child to acquire the basic abilities of reading, writing and numerating.*

*Recommendation* 96

*To make primary schools prepare boys and girls for agriculture, budgetting, family welfare and community development.*

### 6.2.2. Universal Primary Education

One of the basic requirements for enhancing the effort towards equality of economic opportunities and national unity in the country is the provision of basic education to all citizens to enable them to contribute fully to social and economic development of the country. This can be achieved through provision of a free basic education in view of the widely ranging motivations and capabilities of families to educate their children. The Committee came to the conclusion that the first step towards such free basic education will be to provide universal free seven years of primary education as promised by the ruling party KANU. The Government had already taken the first step in 1974 by removing fees for the first four years of primary education (Primary 1 to 4). The Committee has found that this process can be completed in a phased manner within the present economic constraints. The question will then remain as to whether or not it will be possible to extend that provision for the proposed extra two years of junior secondary education. In the meantime, it must be remembered that even if fees are removed

from all seven years of primary education there are still a number of non-fee costs which parents cannot always anticipate and which some find difficult to pay. These costs include uniforms, building funds, equipment levy and activity fee. It is, therefore, proposed that these non-fee costs should also be controlled because they constitute one of the reasons for the high dropout rates in primary schools. Consideration should be given by appropriate authorities to waiving of some of the non-fee costs to genuinely destitute children in order to reduce unnecessary dropout rates.

*Recommendation* 97

*To extend the removal of fees to the full seven years of primary education, as follows:—*

1978—*Remove fees from Primary* 5.

1979—*Remove fees from Primary* 6.

1980—*Remove fees from Primary* 7.

*Recommendation* 98

*To reduce the present trends of high primary school dropout rates in order to achieve and maintain universal primary education in all parts of the country.*

*Control non-fee costs.*

### 6.2.3 Duration of Basic Education

The present seven-year primary education terminates at an age when the children are too young to be gainfully employed. The children are not only biologically and socially immature but they are also physically unable to contribute occupationally to the general and specific activities underlying personal and national development. This, therefore, raises the question of whether the duration of basic education should be lengthened so that the children leave at a functionally more mature age.

Another relevant observation is that there is a close correlation between age and performance at the Certificate of Primary Education. This is reinforced by the current and extensive practice of repeating one or two years before a child offers to sit the CPE. A continuous basic education of nine years duration has, therefore, been proposed and generally accepted in principle by the Government to rationalize this established practice.

The Committee has studied the proposal to lengthen primary education from seven years to nine years. The main reason for this request is that it would enable primary school-leavers to be more mature and would rationalize the current extensive practice of repeating. The Committee is, however, convinced that a mere lengthening of primary education as such would only be postponing by two years the present problem of unemployment that is being experienced after seven years of primary education. The majority of children would still continue to terminate their education at the end of

primary school. Furthermore, this would be done at such a major increase in cost that all other educational sectors would be adversely affected. Any consideration for lengthening basic education to nine years would, therefore, have to be justified on the basis of the needs of the children for whom the education would be terminal.

This is one of the failings of the present primary education. It caters only for the minority of primary school-leavers who manage to go to secondary schools. It does not cater for the majority of primary school-leavers for whom primary education is terminal.

It was made clear to the Committee that the enrolment in harambee secondary schools had equalled and exceeded enrolment in Government secondary schools during 1975. Most of the harambee secondary schools have only Form I and II and go only up to the Kenya Junior Secondary Examination.

It has also become increasingly evident that many of these harambee secondary schools have not been functioning adequately. The facilities they have, especially for science and mathematics, are not adequate. The majority of teachers in these schools are untrained and are predominantly in the arts subjects.

In view of the tremendous sacrifice made by the public in building and maintaining these schools, it is evident that something must be done to avoid a progressive cumulation of social frustration that will be tantamount to wastage of the scarce resources of the people. After considering the request to provide basic education of nine years duration and also noting the cumulative frustration developing socially around the quality of education of harambee secondary schools, the Committee came to the firm conclusion that the answer for Kenya lay in making appropriate long-term modifications to Form I and II by making them diversified and terminal for increasingly larger numbers of children and eventually for all children, including those who do not secure places in secondary schools. In view of the fact that the examination which is done at the end of Form I and II is called Kenya Junior Secondary School Examination, the Committee also came to the conclusion that Form I and II should henceforth be referred to as Junior Secondary I and II. The Committee further suggests that Junior Secondary I and II should in the long run form an integral and continuous part of the proposed nine-year basic education available to all Kenyan children. The community should be requested to put up the extra buildings that will be needed at primary schools but the Government should staff and equip them as adequately as the current Form I and II in Government schools.

It is proposed elsewhere that ultimately the Government should take over the harambee schools and integrate them into the national educational system. In the meantime the Committee urges that the Harambee Package provided by the Government to these schools should be adequately improved.

The following recommendations are made to lay down the goals and programmes of action to effect these changes.

*Recommendation* 99

*To develop a nine-year basic education in the following order: Firstly achieve universal seven-year primary education; secondly raise the quality of primary education by providing trained teachers and suitable instructional materials; and thirdly lengthen the duration of universal basic education from seven to nine years.*

*Recommendation* 100

*To implement a nine-year basic education open to all Kenyan children.*

1983—*Establish Junior Secondary I at primary schools and abolish intake into Form I as part of secondary schools.*

*Establish fee-paying Junior Secondary I.*

1984—*Establish Junior Secondary II at primary schools and abolish intake into Form II as part of secondary schools.*

*Establish fee-paying Junior Secondary II.*

1985—*Last CPE done by Primary 7.*

1986—*CPE to be changed into Primary Progressive Examination to serve as a basis for guiding and counselling all children into Junior Secondary education and expanded vocational training.*

### 6.2.4 Languages of Instruction

Most of the children in the rural areas can only speak their vernacular language at the time of starting primary education. Yet they are expected to have learnt adequate English by the end of seven years to be able to do the Certificate of Primary Education in English. On the other hand they cannot wait to learn English first before starting to learn other subjects of primary education once they have entered primary schools. The Committee has come to the conclusion that the education system should make much better use of the local languages for instruction at the beginning of primary education. English should, however, be taught as a subject from Primary 1 and then used as a language of instruction in the upper primary classes. In the urban areas, however, most of the children are able to use English from the beginning. This is made possible through the teaching many of them get at good pre-primary schools or at home by the parents themselves. The urban schools do, therefore, use English as the language of instruction from the beginning. The Committee has, therefore, made the following recommendations which are aimed at facilitating the initial progress of those children who start school using languages other than English.

*Recommendation* 101

*To use as a language of instruction the predominant language spoken in the schools' catchment area for the first three years of primary education.*

*Recommendation* 102

*To introduce English as a subject from Primary* 1 *and to make it supercede the predominant local language as the medium of instruction in Primary* 4.

### 6.2.5 Content of Primary Education

It has been pointed out that the syllabus and content of primary education have very little relevance to the real social and economic environment in which the school-leavers will live and work. The question has, therefore, been raised as to whether such adaptive skills as needlework, carpentry and others could be usefully taught in primary schools to enhance the ability of the school-leavers to adapt to these circumstances. From a social and environmental point of view, the question has also been raised of the extent to which there should be integration of the life of the schools with that of the local community in which the schools are situated. It is argued that such a social integration would reduce the degree of alienation of the school-leavers with the social and economic conditions in which the majority of them will eventually live and work.

One of the ways in which schools could be integrated with the community around them is through the use of the arts and crafts designed and developed locally. Currently these are not effectively used by teachers as part of the teaching materials. The tendency is to order such materials from other areas because the specifications of the syllabuses do not encourage or facilitate the use of such locally available materials. It must be remembered that parents expect their children to study for entry into the modern sector of the economy and not for the local economy. Because of this attitude such skills as traditional crafts are looked down upon as having no educational or economic value in modern society.

It is the view of the Committee that the situation can be changed only if the education system is prepared to adopt those traditional practices that are of educational, cultural and economic value and use them for teaching. This would have the added effect of perpetuating the positive values of traditional artistry and industry. The public and the students would also need to be encouraged and assisted to develop these traditional crafts so that they can be used more widely for educational and economic purposes. This would in turn have implications on teacher education unless the crafts were to be taught by the community's traditional craftsmen themselves. The Committee considers that there is merit in employing both traditional and modern craftsmen to teach on a part-time basis. It would also mean that such traditional crafts as carving in Ukambani, basketry in many parts of the country and many others would need to be studied systematically so that they can be used to produce educational materials that are capable of responding to such a need.

In the meantime it is essential to do everything possible to improve the quality of existing basic education. This need is particularly acute in mathematics, sciences and languages. As recommended for the content of secondary education, the primary curriculum should also be increasingly technicalized with a view to making the most appropriate orientations even in subjects like languages, history and mathematics. This kind of modification together with the increased teaching of pre-vocational subjects would provide a diversification that should relate better to social and economic realities of the country than the present purely formal and examination oriented education is. It has also become evident to the Committee that an education system that concerns itself with only the cognitive attributes of a child is imbalanced. The Committee would, therefore, like to stress the importance of introducing the teaching of ethics, continuation and strengthening of the teaching of religious education and the promotion of good discipline in primary schools.

The following recommendations are made with a view to dealing with many of the problems that relate to the content of primary education.

*Recommendation* 103

*To concentrate primary level education to the achievement of the highest possible level of basic education (numeracy, literacy, scientific and social understanding).*

*Recommendation* 104

*To teach the following bodies of knowledge under languages, mathematics, science, cultural studies and pre-vocational studies in the upper primary (Primary 4 to 7) classes.*

104.1 *Languages (English and Kiswahili).*

104.2 *Mathematics.*

104.3 *Sciences:*

*Biology.*
*Agricultural Sciences.*
*Physical Sciences (elementary chemistry and physics).*
*Home Science and Health Education.*
*Geography.*

104.4 *Cultural Studies:*

*History.*
*Civics.*
*Music.*
*Arts and Crafts.*
*Physical Education and Dancing.*
*Religious Education.*
*Social Ethics.*

104.5 *Pre-vocational Studies:*

*Woodwork.*
*Masonry and Bricklaying.*
*Business Education (typing, book-keeping and commerce).*

*Recommendation* 105

*To lay stress on the development of comprehension skills in the language syllabuses and on the ability to convey information and ideas in speech and in written prose.*

*Recommendation* 106

*To introduce Kiswahili as a compulsory subject in Primary* 3 *(or when English-medium instruction begins) to take over from the vernacular-medium instruction to avoid making pupils of primary school age learn two new languages at the same time.*

*Recommendation* 107

*To teach Kiswahili as a compulsory subject and to include it in the Certificate of Primary Education examination or its successor.*

*Recommendation* 108

*To focus the factual knowledge included in the primary school science curriculum on topics which are relevant to the everyday lives of the pupils, avoiding specialized technical terms and highly abstract facts which are not relevant.*

*Recommendation* 109

*To support the teaching of agricultural sciences, including the economics of production, to demonstrate to the pupils that agriculture can be profitable.*

*Introduce the subject in Primary* 6 *and* 7 *and Junior Secondary I and II.*

### 6.2.6 Content of Junior Secondary Education

It is anticipated that the junior secondary curriculum of the proposed nine-year basic education will be a much more practical, pre-vocational and diversified programme than the present Form I and II. The Committee is satisfied that, with these provisions, schooling at this level should become terminal for the majority of children. The following recommendations are made with a view to meeting this development.

*Recommendation* 110

*To devote the extra years of the proposed nine-year basic education to the development of basic skills which are the foundation for individual effectiveness in daily life and subsequent training.*

*Recommendation* 111

*To continue teaching pre-vocational subjects and to emphasize the project approach in Junior Secondary I and II.*

*Recommendation* 112

*To teach book-keeping as a compulsory subject and to teach one other pre-vocational subject in each school.*

*Recommendation* 113

*To review the role and programmes of village polytechnics and other post-school training institutions in relation to the modified curriculum of the proposed nine-year basic education.*

### 6.2.7 Teaching Methodology

One of the basic requirements in making education relevant to the day-to-day problems is to enable the students to observe phenomena of the environment, gather data about them, interpret the data and then use them to solve problems. Teaching methods should, therefore, emphasize this approach as stated in the following recommendation.

*Recommendation* 114

*To develop the ability to gather data by observation of the environment, or by experiment in primary science teaching, as well as the ability to draw valid scientific inferences from the observed data.*

### 6.2.8 Examinations in Primary Education

Primary education is orientated towards the very competitive examination called the *Certificate of Primary Education* (*CPE*). The examination tests mainly the cognitive attributes of the young child's personality and is used primarily for selection to secondary schools. It does not help to test the child's psychomotor skills or attitudinal characteristics. The development and assessment of the most appropriate adaptive skills through the basic educational development of the psychomotor skills of young children have been lacking in primary schools and the CPE does not attempt this kind of assessment. As a result primary education has come to be regarded purely as serving the needs of the CPE rather than from the point of view of what it can do to make children increasingly adaptable in the rapidly changing circumstances of today's society.

The Certificate of Primary Education examination is in reality not an adequate assessment of the adaptive capabilities of children. Furthermore it emphasizes only the competitive nature of life and little of the sense of a common purpose that is essential for the promotion of national unity and the tradition of mutual social responsibility.

Another major feature of the CPE is that the whole examination is done in one day. Yet the children will have been taught the subjects separately as geography, history, science, English and so on up to about six different subjects. These are then administered in three to four examination papers, all in one day. There is no other public examination which imposes that degree of stress to the examinees. Furthermore, this is done on young adolescents who have never done a major public examination before. Many of

them are experiencing the physiological changes of adolescence which in themselves can constitute personality changes that make it difficult for the children to cope with the kind of stress that the CPE imposes. Although there may be genuine logistical and security reasons for administering the examination in one day, it is the firm view of the Committee that the children should be examined according to the subjects they are taught and that no more than two examination subjects should be administered in one day. The questions can, however, continue to be set so as to be marked by a computer.

The nature of the Certificate of Primary Education examination is an accurate reflection of the objectives and programmes that underlie the educational activities of primary schools. By emphasizing mainly the academic and examination competition aspects, the seven years that the children spend at school tend to alienate them from the realities of the social backgrounds in which they will have to apply their education. As a result, few of them are willing to return to the rural areas and assume the tasks which they and their people depend on for livelihood. Even in a place like the Marsabit District, for example, primary school-leavers go to towns and trading centres where they become clearly noticeable delinquents because of lack of employment. Yet they lack motivation or skills to go back and assist their people in developing such occupations as livestock development on which their own survival in that area depends.

The development of the most appropriate attitudes that the children need in these situations is not catered for in primary education. As a result, the development of attitudinal characteristics such as sense of dignity for productive manual labour is not associated with acquisition of formal education. When to this is added lack of adaptive skills then the person does have a real handicap and the sense of helplessness and frustration can become a serious problem.

Parents and the public in general have expressed their dislike for CPE. In view of the competitive nature of the CPE, the public view the examination as the traumatic event which determines the fate of the majority of children who do not manage to get places in secondary schools. It is mainly because of these large numbers of children that communities have built harambee secondary schools to absorb them, thereby adding to the already serious problem of relatively poor quality of education in a large number of the harambee secondary schools.

Persistent requests have been made for the abolition of CPE. Other requests have stated that even if CPE is not abolished it should be modified to take into consideration the needs of the children who do not go on to secondary schools. The most pressing need for these children is finding income-earning employment.

It must be remembered that the children are usually too young and immature to go into employment or training after CPE. The public have also realized that there is a correlation between performance at CPE and age of the children. It is this realization that is the basis of the extensive rates of repeating before children are submitted to sit the CPE. Whether or not CPE is actually abolished, there seems to be a very real case for providing an extra two years of education to all Kenyans before applying the guillotine of a selective public examination. This question is dealt with at greater length in the section on duration of basic education. In the meantime the question remains as to what changes should be implemented regarding the CPE and to assist those schools where CPE performance is consistently poor. The following recommendations are made in this regard.

*Recommendation* 115

*To operate an improved version of the present selection procedures in the meantime until the nine-year basic education programme is implemented.*

*Recommendation* 116

*To devise practicable methods for assessing performance in all primary subjects, using the marks for all subjects in the aggregate mark on which secondary school selection is based.*

1977—*CPE to consist of separate subjects in the way they are taught and to be done over a longer period.*

*Recommendation* 117

*To continue the trend towards setting more questions which test skills relevant to the terminal pupil in CPE or its successor.*

*Recommendation* 118

*To investigate the possibility of introducing an open-ended CPE mathematics paper to supplement the existing multiple-choice paper, using a graded marking scheme for the new examination paper so that candidates are given credit for choosing an appropriate method and for setting out their working in an orderly and efficient way as well as for reaching the correct answer.*

*Recommendation* 119

*To include in the CPE questions which test psychomotor skills that are important for mathematical competence that cannot be tested in the CPE multiple-choice paper.*

*Recommendation* 120

*To monitor progress of schools in each district where CPE performance is sub-standard until performance reaches an acceptable standard.*

TABLE 6.1—PRIMARY SCHOOL ENROLMENTS, 1961 TO 1976

| | Standard 1 | All Standards |
|---|---|---|
| 1961 .. .. | 190,000 | 870,000 |
| 1962 .. .. | 170,000 | 936,000 |
| 1963 .. .. | 137,000 | 892,000 |
| 1964 .. .. | 180,000 | 1,015,000 |
| 1965 .. .. | 196,000 | 1,042,000 |
| 1966 .. .. | 194,000 | 1,043,000 |
| 1967 .. .. | 229,000 | 1,133,000 |
| 1968 .. .. | 251,000 | 1,210,000 |
| 1969 .. .. | 253,000 | 1,282,000 |
| 1970 .. .. | 296,000 | 1,428,000 |
| 1971 .. .. | 307,000 | 1,525,000 |
| 1972 .. .. | 357,000 | 1,676,000 |
| 1973 .. .. | 379,000 | 1,816,000 |
| 1974 .. .. | 959,000 | 2,734,000 |
| 1975 .. .. | 668,000 | 2,881,000 |
| 1976 .. .. | 571,872 | 2,894,617 |

**Source:** Ministry of Education Annual Reports.

TABLE 6.2—PRIMARY SCHOOL ENROLMENTS, 1961 TO 1975 : BOYS AND GIRLS

| | Boys | Girls | Total |
|---|---|---|---|
| 1961 .. .. .. | 585,000 | 284,000 (33%) | 870,000 |
| 1962 .. .. .. | 625,000 | 310,000 (33%) | 936,000 |
| 1963 .. .. .. | 587,000 | 305,000 (34%) | 892,000 |
| 1964 .. .. .. | 658,000 | 357,000 (35%) | 1,015,000 |
| 1965 .. .. .. | 663,000 | 379,000 (36%) | 1,042,000 |
| 1966 .. .. .. | 646,000 | 380,000 (36%) | 1,043,000 |
| 1967 .. .. .. | 690,000 | 443,000 (39%) | 1,133,000 |
| 1968 .. .. .. | 725,000 | 485,000 (40%) | 1,210,000 |
| 1969 .. .. .. | 763,000 | 519,000 (41%) | 1,282,000 |
| 1970 .. .. .. | 836,000 | 591,000 (41%) | 1,428,000 |
| 1971 .. .. .. | 881,000 | 664,000 (44%) | 1,525,000 |
| 1972 .. .. .. | 957,000 | 712,000 (43%) | 1,676,000 |
| 1973 .. .. .. | 1,025,000 | 791,000 (44%) | 1,816,000 |
| 1974 .. .. .. | 1,499,000 | 1,235,000 (45%) | 2,734,000 |
| 1975 .. .. .. | 1,562,000 | 1,320,000 (46%) | 2,881,000 |

**Source:** Ministry of Education Annual Reports.

## CHAPTER 7—SECONDARY EDUCATION

### 7.1 Evaluation

Secondary education is offered in schools which include those run by the Government, private organizations as well as in Harambee community schools. Basically they are similar in their academic work in that they use the same centrally prepared and regulated curriculum.

Secondary education has been expected to facilitate the achievement of national unity and good citizenship, equalization of opportunities between individuals, regions and the sexes, promotion and development of culture, promotion of individual self-fulfilment and promotion of an international consciousness. The schools are further advised to promote the growth of the individual towards maturity and self-fulfilment as a useful and well-adjusted member of society. The student is expected to acquire knowledge and show that he can use it. He should also acquire the habit of learning and the motivation to continue learning for the rest of his life.

Secondary school-leavers have thus been expected to contribute to the social, cultural and economic development of the country in a very major way. It was because of this expectation that a large expansion of secondary education was undertaken during the first ten years of independence in terms of numbers of schools, student enrolments and numbers of teachers. The expansion was aimed at promoting economic development by providing for the severe shortages of manpower that existed at Independence.

The Committee has been made to understand that these severe shortages had been largely dealt with by the beginning of the 1970s, except in the sciences and mathematics which in turn are reflected in continuing shortages in technical and other professional areas. But in view of the high economic expectations that the public have come to place on secondary education, the continued pressure to expand secondary schools has resulted in the rapid expansion of harambee secondary schools. The enrolments in the harambee secondary schools have been growing steadily since Independence, although at slightly lower levels than those of Government secondary schools. But, as shown in Fig. 7.1, the situation began to change when the Government started to slow down the rate of expansion of Government secondary schools at the beginning of the 1974 to 1978 Plan Period. As a result, the public responded to this constraint by building more harambee secondary schools. There was also a relatively sharp rise in enrolments in harambee secondary schools in 1974 (*see* Fig. 7.1). From the trend which was set in that year the enrolments in harambee secondary schools equalled and exceeded those of Government secondary schools during 1975.

It is because of this tremendous and relentless pressure to go on expanding secondary formal education that the Committee noted with great concern the rising rates of unemployment among secondary school-leavers. Since it is expected that the rate of unemployment will continue to rise, it is the view of the Committee that the aims and programmes of secondary education must be redefined to suit the suggested patterns of economic opportunities, especially those that must be created in rural areas and informal sectors of the economy.

According to the Ministry of Labour projections, only one secondary school-leaver out of ten will acquire a modern sector job. Since only a relatively small percentage will be accepted for higher education, the vast majority will, therefore, have to be absorbed mainly in self-employment. This can only be achieved through creation of jobs in such areas as agriculture, agro-industries, as well as the informal sector of the economy. It must be remembered, however, that secondary education as it is today is aimed at selecting people for the modern sector. Because of this it will be necessary to restrain expansion of secondary education for the time being. In the meantime it is the view of the Committee that it will therefore be necessary to redefine the aims of secondary education in order to orientate school-leavers towards occupations other than those found in the modern sector. In particular, the Committee would like to see secondary education redefined to include the following objectives:—

Integration with rural development.

Diversification of the curriculum. In particular, agricultural sciences should occupy a central position, and students should be given a broadly-based education leading to competence in a variety of development tasks.

Development of the personal qualities of creativity, innovativeness and thinking which are related to the need for many students to create their own income-earning opportunities.

Development of a sense of ethical values and social obligations, by re-asserting the values and obligations of traditional African society in a national context.

Making secondary science education relevant and available to all people so as to support the basic activities of life.

Integration of secondary education with the rest of the formal, non-formal and informal processes of education.

One of the steps taken by the Government to try and make secondary school-leavers more employable has been the introduction of agriculture and technical subjects in some secondary schools. From a purely financial point of view this has been an expensive investment. It is because of this that the Committee would like to express its serious concern over the fact that the introduction of these subjects has not worked out satisfactorily.

The objective of introducing agriculture was to motivate young people towards agricultural activities in view of the heavily agricultural nature of Kenya's economy. It has become increasingly evident, however, that the study of agriculture has come to be regarded by the student as being a purely academic exercise for obtaining a certificate rather than as having anything to do with preparation in agricultural skills and motivation. It would also appear that academically weaker students might be taking agriculture on the assumption that it can replace a science subject. This is further supported by the fact that those who have done agriculture in secondary schools are not given preference during the selection for further training in agriculture by the Ministry of Agriculture. This is because they are not considered as having acquired the necessary scientific background for further training in agriculture for which students with science subjects are preferred. The Committee would therefore also like to express its concern about the obvious lack of regular consultations between the Ministries of Education and Agriculture since the subject was introduced in secondary schools.

Some technical education has also been introduced into secondary schools with a view to preparing the students for easier absorption into industry. It was made clear to the Committee that even these students are experiencing difficulties in finding employment and further technical training. The Committee nevertheless noted that the Ministry of Labour was acting as a contracting agency for placing these school-leavers in jobs and further training.

Although it is not yet possible to assess accurately the long term effects of agricultural and technical secondary education, the evidence available to the Committee suggests that employment prospects of those who have completed it are not likely to differ markedly from those of the rest of secondary school-leavers. The Committee would therefore like to see a halt to the planned expansion of technical secondary education until a thorough review has been undertaken to determine the most appropriate way of investing in these and other subjects.

## 7.2 Goals and Programmes of Action

### 7.2.1 Structure of Secondary Education

With the introduction of a nine-year basic education (primary and junior secondary), senior secondary education will become a continuous four-year structure starting at Form III and terminating at Form VI.

One of the features of the current Form VI education is that it is structured entirely for selecting candidates for university education. The Committee considers it necessary to change this level of education to make it more diversified and predominantly terminal. Although it will still continue to provide the candidates for university entry, it will become the major

recruiting stage for training and employment. This is because there will be the added advantage of providing candidates, in sufficient numbers, who have had a diversified education and who can go into a much wider variety of training and employment requirements for middle to high level manpower. The need for change is further made evident by the increasing numbers of qualified Form VI leavers who are unable to secure places at the university. The proposed changes are made in the following recommendations.

*Recommendation* 121

*To implement a continuous four-year secondary education.*

*To call it senior secondary (Form III, IV, V and VI).*

1985 *start first year of new senior secondary education.*

1988 *first senior secondary school-leaving examination to be done.*

*Recommendation* 122

*To remove the demarcation between secondary academic and secondary technical education and to make secondary education increasingly scientific, pre-vocational and craft-orientated.*

*Recommendation* 123

*To halt any further expansion of the present type of secondary technical education while the proposed review establishes its justification in terms of the likely employment of the graduates or the optimum pattern of skills required.*

*Recommendation* 124

*To develop and rationalize the existing education system for those not selected for Government secondary schools (i.e. extra-mural classes, correspondence courses, radio and television) and to provide opportunities for external candidates to enter for the same examinations as school candidates.*

*Recommendation* 125

*To offer a secondary education which is predominantly terminal and no longer tied only to university entrance at Forms V and VI.*

*Recommendation* 126

*To base syllabi and examinations in science and mathematics on the needs of terminal students but to take into consideration the needs of those who will proceed to further education and training.*

*Recommendation* 127

*To make secondary schools train for community leadership, family life and sex education.*

*Recommendation* 128

*To relate the proportions engaging in academic formal secondary education to the basis of the quality of the education provided and the skill ratios required by the country.*

*Recommendation* 129

*To integrate secondary school education more fully into an overall pattern of formal and non-formal opportunity for school-leavers with the aim of providing work skills of different types and incorporating the National Youth Service, Christian Industrial Training Centres, National Industrial and Vocational Training Centres, and Village Polytechnics into the system.*

### 7.2.2 Provision and Use of Expensive Facilities

The development of a secondary education which is predominantly terminal and more diversified will require a wide range of facilities. Many of these are likely to be very expensive especially those for sciences and techincal subjects. The Committee would like to emphasize that unless these facilities are provided the recommendations made below to change secondary education will be meaningless.

*Recommendation* 130

*To consolidate secondary schools into larger units with schools of at least four streams (sixteen classes) being the long-term aim.*

*Recommendation* 131

*To group schools together to share the use of expensive facilities and scarce specialist teachers.*

*Recommendation* 132

*To improve facilities for the teaching of mathematics and science.*

*Build more laboratories.*

*Provide special teaching rooms for mathematics.*

*Offer formal courses of training for school laboratory assistants.*

*Provide at least one such laboratory assistant for each secondary school and laboratory technicians for larger schools.*

*Increase the supply of locally made teaching aids.*

### 7.2.3 National and Provincial Secondary Schools

The promotion of national unity requires that students from different parts of the country study together. This is best organized through national schools. These schools must of necessity be boarding schools. The Committee has however noted that it is not possible to provide boarding facilities for all students who will be aspiring for secondary education. The Committee has been made to understand that there is already a backlog of construction, maintenance and repairs amounting to about K£20 million. Increasingly large numbers of secondary school students will not have access to boarding facilities provided by the Government. Because of this space constraint the Committee would like to emphasize that the existing boarding schools should admit students on a national and provincial

basis in the interests of national unity. The Boards of Governors of individual schools should however be free to establish boarding facilities of an acceptable standard in day secondary schools. The Committee would nevertheless like to emphasize that the facilities for learning should be as adequate as those found in well equipped and staffed boarding schools.

*Recommendation* 133

*To establish at least one national school in each district.*

*Recommendation* 134

*To require provincial boarding schools to admit students on a truly provincial basis.*

### 7.2.4 Content of Secondary Education

There has been a general deterioration in the quality of science and mathematics throughout the formal system of education arising from increased enrolments in relation to qualified teachers in these subjects. As a result repeated failure to identify sufficient numbers of students who are well qualified in science and mathematics particularly in Form IV and Form VI persists. This problem is compounded by the persistently poor performance of students in public examinations. The Committee would like to see changes as recommended below.

*Recommendation* 135

*To make secondary education more pre-vocational with a view to producing trainable young people.*

*Recommendation* 136

*To diversify the secondary school curriculum and give a stronger practical orientation.*

*Recommendation* 137

*To teach a basic science course as a minimum in all secondary schools whose curriculum should develop a firm base in the sciences.*

*Recommendation* 138

*To develop the secondary school curriculum on the basis of a core of compulsory subjects related to basic skills, knowledge and attitudes, plus reinforcement courses which students would be allowed to take.*

*Recommendation* 139

*To give prominence to the teaching of agricultural sciences in secondary schools and to relate the teaching of other subjects to agriculture.*

*Recommendation* 140

*To give stronger emphasis to other applied subjects in secondary schools, including industrial education for which the programme should be expanded, using equipment related to small-scale farming and to conservation.*

*Recommendation* 141

*To make Kiswahili a compulsory and examinable subject in secondary schools and to take the necessary steps to train sufficient teachers.*

*Recommendation* 142

*To increase the teaching of cultural subjects, giving emphasis to local culture and history but exposing the pupils to the best of other traditions with particular reference to enriching their experience of language.*

*Recommendation* 143

*To consolidate and establish more streams for science, mathematics and technical subjects where necessary in the reorganized secondary school system.*

*Recommendation* 144

*To consolidate a number of selected secondary schools into science schools as a matter of great urgency with a view to producing a surplus of qualified candidates in science subjects from whom science teachers would be recruited in order to make an impact on school science teaching in about ten years' time.*

*Recommendation* 145

*To provide science with technical education related to agriculture and allied industries as well as more theoretical study of separate science subjects as alternative science curricula in the reorganized secondary school system.*

*Recommendation* 146

*To teach basic computational skills for problem-solving in mathematics to all students and to review any further mathematical requirements for all secondary school students and those proceeding to various specialized courses.*

*Recommendation* 147

*To maintain and facilitate high standards in mathematics and science examinations.*

*Recommendation* 148

*To give remedial courses for selected students who fail at the first attempt to gain university admission for mathematics and science based cousres.*

*Recommendation* 149

*To increase the number of mathematics and science competitions.*

*Recommendation* 150

*To technicalize the general secondary school curriculum through the application of vocational as well as the more traditional academic, social and cultural criteria by the introduction of such subjects as technical drawing, engineering sciences, agricultural sciences and economics into the programmes of all secondary schools.*

### 7.2.5 National Secondary Curriculum

With the changes which have been proposed for a diversified and predominantly terminal secondary education, it will be necessary to establish a machinery for regulating the development of the secondary school curriculum as recommended below.

*Recommendation* 151

*To establish and use a new National Secondary School Curriculum while at the same time encouraging specialization by schools and introduction of syllabi and examinations related to local environments and economies.*

*Recommendation* 152

*To set up a new National Curriculum Committee in anticipation of the first entrants to Junior Secondary I and the first Junior Secondary II leavers entering secondary schools to oversee the development of the new broadly-based primary and secondary school curricula.*

1977—*Establish the National Curriculum Committee representing the Kenya Institute of Education, the Inspectorate and the Examinations Section of the Ministry of Education, the University and other relevant bodies.*

*Recommendation* 153

*To reduce the frequency of syllabus changes and to give schools longer notice when such changes are made.*

### 7.2.6 Localization of the Curriculum

One of the features of the diversified secondary school curriculum is expected to be able to facilitate the development of social, cultural and economic attributes of the country. The Committee would therefore like to see a major effort made to localize the secondary school curriculum, both in the sciences and the arts as recommended below.

*Recommendation* 154

*To localize science content and methodology as a basis for development of labour-intensive technology appropriate to the support of basic activities of life in the rural areas.*

*Recommendation* 155

*To localize further the secondary school syllabi of art, music, and other secondary level subjects.*

### 7.2.7 Methodology in Secondary Education

Schools are being required to change from being centres for formal instruction and become educational institutions. This requirement applies particularly to post-primary schools. It is based on the observation that the

learning process is greatly facilitated if the students are motivated to learn. One of the methods for achieving this is by encouraging inquiry and discovery by the students.

*Recommendation* 156

*To promote a spirit of inquiry and innovativeness by encouraging the use of discovery methods in the secondary school curriculum.*

TABLE 7.1—SECONDARY (AIDED) SCHOOL ENROLMENTS, 1961 TO 1975

| | Forms I to IV | Forms V/VI | Total |
|---|---|---|---|
| 1961 .. .. | 17,700 | 700 | 18,400 |
| 1962 .. .. | 19,800 | 900 | 20,700 |
| 1963 .. .. | 22,200 | 1,000 | 23,200 |
| 1964 .. .. | 26,200 | 1,300 | 27,500 |
| 1965 .. .. | 31,800 | 1,800 | 33,600 |
| 1966 .. .. | 39,000 | 2,200 | 41,200 |
| 1967 .. .. | 45,700 | 2,700 | 48,400 |
| 1968 .. .. | 53,500 | 3,100 | 56,600 |
| 1969 .. .. | 62,100 | 3,600 | 65,600 |
| 1970 .. .. | 70,100 | 4,500 | 74,600 |
| 1971 .. .. | 75,700 | 4,800 | 80,500 |
| 1972 .. .. | 85,200 | 6,300 | 91,500 |
| 1973 .. .. | 92,800 | 6,600 | 99,400 |
| 1974 .. .. | 95,000 | 7,200 | 102,200 |
| 1975 .. .. | 98,100 | 8,200 | 106,300 |

**Source:** Ministry of Education Annual Reports.

NOTE:—Secondary technical school enrolments are not included in this table.

TABLE 7.2—SECONDARY (UNAIDED) SCHOOL ENROLMENTS, 1961 TO 1975

| | Forms I to IV | Forms V/VI | Total |
|---|---|---|---|
| 1961 .. .. | 3,600 | 100 | 3,700 |
| 1962 .. .. | 5,800 | 100 | 5,900 |
| 1963 .. .. | 6,900 | 100 | 7,000 |
| 1964 .. .. | 8,300 | 100 | 8,400 |
| 1965 .. .. | 14,300 | 100 | 14,400 |
| 1966 .. .. | 21,900 | 100 | 22,000 |
| 1967 .. .. | 40,300 | 100 | 40,400 |
| 1968 .. .. | 44,700 | 100 | 44,800 |
| 1969 .. .. | 49,500 | 100 | 49,600 |
| 1970 .. .. | 52,200 | 100 | 52,300 |
| 1971 .. .. | 59,400 | 200 | 59,700 |
| 1972 .. .. | 70,000 | 400 | 70,400 |
| 1973 .. .. | 74,800 | 600 | 75,300 |
| 1974 .. .. | 93,200 | 400 | 93,600 |
| 1975 .. .. | 110,600 | 500 | 111,100 |

**Source:** Ministry of Education Annual Reports.

TABLE 7.3—SECONDARY SCHOOL ENROLMENTS (ALL SCHOOLS), 1961 TO 1975: BOYS AND GIRLS

| | Boys | Girls | Total |
|---|---|---|---|
| 1961 .. .. .. .. | 14,800 | 7,400 (33%) | 22,200 |
| 1962 .. .. .. .. | 17,700 | 8,900 (33%) | 26,600 |
| 1963 .. .. .. .. | 20,600 | 9,600 (32%) | 30,100 |
| 1964 .. .. .. .. | 25,200 | 10,700 (30%) | 35,900 |
| 1965 .. .. .. .. | 34,700 | 13,300 (28%) | 48,000 |
| 1966 .. .. .. .. | 46,800 | 16,400 (26%) | 63,200 |
| 1967 .. .. .. .. | 66,400 | 22,400 (25%) | 88,800 |
| 1968 .. .. .. .. | 75,200 | 26,200 (26%) | 101,400 |
| 1969 .. .. .. .. | 83,100 | 32,200 (28%) | 115,200 |
| 1970 .. .. .. .. | 89,300 | 37,500 (30%) | 126,900 |
| 1971 .. .. .. .. | 98,000 | 42,700 (30%) | 140,700 |
| 1972 .. .. .. .. | 111,300 | 50,600 (31%) | 161,900 |
| 1973 .. .. .. .. | 117,200 | 57,500 (33%) | 174,800 |
| 1974 .. .. .. .. | 128,700 | 67,100 (34%) | 195,800 |
| 1975 .. .. .. .. | 138,700 | 78,700 (36%) | 217,400 |

**Source:** Ministry of Education Annual Reports.

TABLE 7.4—AN OPPORTUNITY INDEX FOR SECONDARY EDUCATION, 1964 TO 1976

| | K.P.E./ C.P.E. Candidates | AIDED SCHOOLS | | ALL SCHOOLS | |
|---|---|---|---|---|---|
| | | Form I Places | Opportunity Index | Form I Places | Opportunity Index |
| 1964–65 .. .. | 103,400 | 11,500 | 11% | 19,000 | 18% |
| 1965–66 .. .. | 148,900 | 12,800 | 9% | 24,100 | 16% |
| 1966–67 .. .. | 146,900 | 14,500 | 10% | 32,200 | 22% |
| 1967–68 .. .. | 149,700 | 15,700 | 10% | 36,200 | 24% |
| 1968–69 .. .. | 159,700 | 18,900 | 12% | 40,800 | 26% |
| 1969–70 .. .. | 159,900 | 21,200 | 13% | 42,000 | 26% |
| 1970–71 .. .. | 166,900 | 22,500 | 13% | 47,400 | 28% |
| 1971–72 .. .. | 176,100 | 24,300 | 14% | 54,300 | 31% |
| 1972–73 .. .. | 187,600 | 26,700 | 14% | 59,500 | 32% |
| 1973–74 .. .. | 200,300 | 27,300 | 14% | 64,700 | 32% |
| 1974–75 .. .. | 216,200 | 27,600 | 13% | 73,700 | 34% |
| 1975–76 .. .. | 226,700 | 27,800 | 12% | n/a | n/a |

**Sources:** Ministry of Education Annual Reports and Examinations Section.

NOTES:— (i) Enrolment statistics for unaided secondary education are not reliable, so the figures in the last two columns are approximations.

(ii) The fall in the aided school Form I opportunity index since 1974 is being partly compensated by the opening of new aided Form III's for pupils from harambee schools.

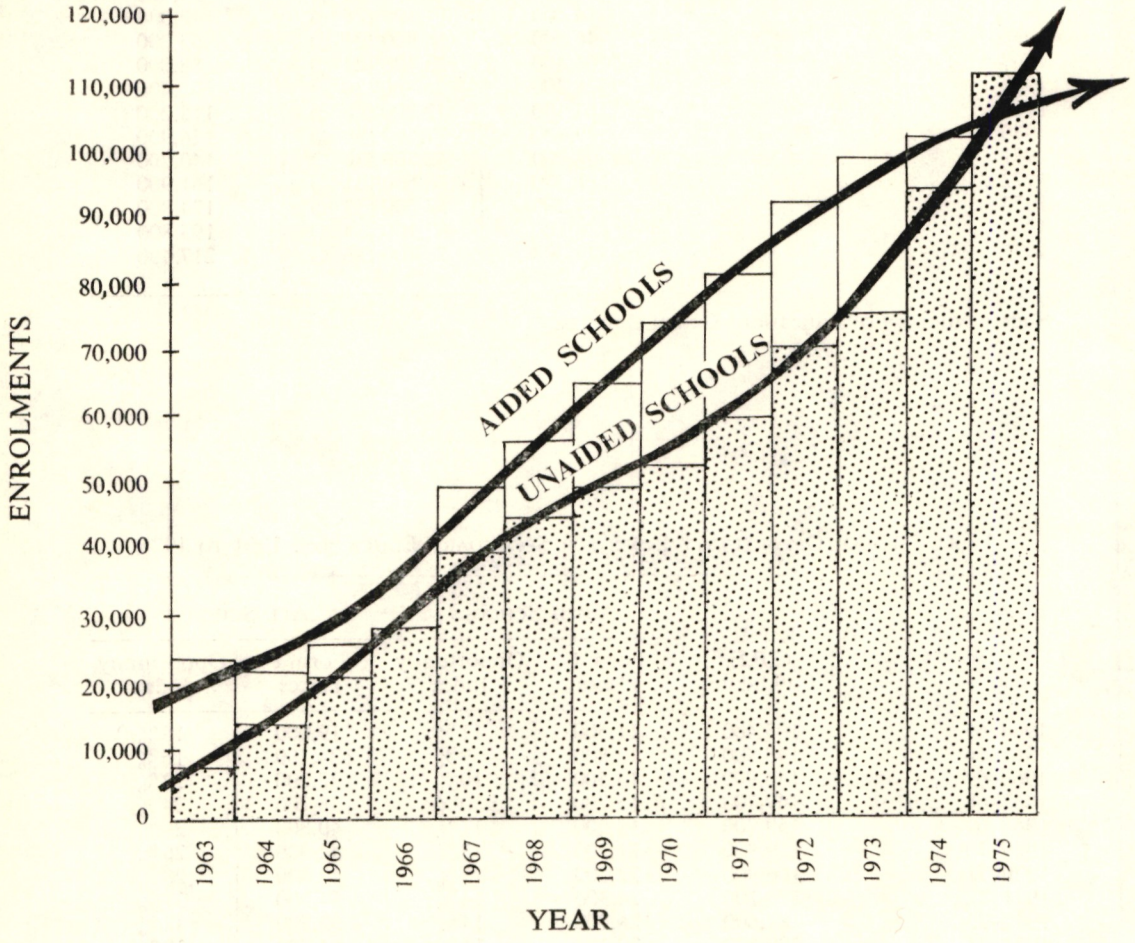


**Fig. 7.1—Graph illustrating patterns and trends in secondary school enrolments.**

## CHAPTER 8—SPECIAL EDUCATION

### 8.1 Evaluation

One of the marks of an advanced education system is the care it takes over those children who are less fortunate because of physical or mental maladies. Efforts to take care of these children must take into consideration the social and psychological stigma attached to the various types of handicaps. Parents tend to regard a handicap as a reflection on themselves. As a result there is often an unwillingness to report handicapped children or to seek help for them.

In a country like Kenya, the general problem of handicapped children is further compounded by the general problem of calorie-protein malnutrition which, in its severe form of kwashiorkor, may constitute serious mental handicap during the pre-school and early school years thereby reducing the child's ability to benefit from normal education. It is the view of the Committee that special education arrangements in this country must take into consideration these social and environmental factors that are not normally part of the usual types of handicap requiring special education.

The basic and most urgent problem in special education lies more with the community than with the disabled and disadvantaged children. It is the parents in particular and the community in general who must be able to detect the presence of the various forms of handicap and then do something about it. It is also at this level that some of the forms of handicap such as those of severe kwashiorkor can be prevented. Special education, however good its provisions and however successful, is at the most a second-best arrangement. The first and most important solution lies with the family and society in general. It is here that the most effective steps can be taken to deal with the problem by the adoption of measures to improve health education and hygiene at home and family level. In this way the incidence of the various physical and mental handicaps can be kept to a minimum. There are thousands of children whose handicap of blindness, crippledness, deafness and mental retardation could have been avoided by following simple health rules, hygienic practices, the provision of an adequate and balanced diet and immediate recourse to medical services at the onset of disease or other physical malconditions. The Committee would therefore like to emphasize the importance of improving health education and other relevant services at home and community level.

Furthermore, the family and community need enlightenment as to what amenities are available for the welfare and well-being of children. This is because, despite the best possible home care and medical attention, the

children can still become victims of some form of handicap. Furthermore, the family and community must be vigorously encouraged to take advantage of these facilities if and when they are available. Nearly all handicapped children can be helped to overcome the limitations imposed by their disablement, at least to a degree, and to live happily and constructively with the rest of society. Yet embarrassment due to lack of understanding is sometimes a barrier on the part of parents and others, preventing the realization of achievements in many fields by children with handicaps.

In enabling a handicapped child to realize his potential and achieve a gratifying measure of participation in community life, the first preference is for him to be cared for, educated and trained. Ideally this should be based in his home environment and in normal conditions. It is only when problems involved in integration into normal provisions are more than the family and teaching staff can cope with that special education needs to be introduced into the system to counter the neglect and/or inability of the local community to prepare the handicapped child for participation in the life-pattern of society. The apparent inability of the handicapped child is in reality and for the most part a reflection of the helplessness of those of his immediate environment to help him to achieve a degree of parity in contributing to the progress and prosperity of society.

The next priority that the Committee would like to emphasize is integration of the handicapped, as far as it can be achieved, into the normal pattern of education and training. It must always be recognized that the main obstacle to this process is the element of prejudice and lack of enlightenment on the part of those who keep the doors of opportunity in normal schooling closed to handicapped children.

Many of these children require some of the amenities provided under "special education" even in normal centres of learning. The Committee therefore suggests that this term be widened in its connotation to include the educational needs of all handicapped children, whether or not they are in "special schools". This would allow for special provisions and equipment to be made available to handicapped pupils and students if it is not found necessary for them to study in special schools or training centres. It would also provide for those who transfer from "special schools" to normal schools, centres, colleges and university.

The next point to observe is that in "special education" it is impossible to generalize or standardize. This is because of the wide range of, and essential differences in, the form and nature of physical and mental handicaps, and also in the very wide range in the degree or severity of each. It is because of this factor that the need for special schools arises, even if integration has been achieved to the maximum degree possible. The exceptions will normally be a very small portion of those whose handicap is of the severest degree

which precludes them from the prospect of life outside a specialized institution that provides for their care and maximum well-being. For some this integration is at the level of higher education in secondary schools, colleges or university. For others, it is at the level of vocational training or employment. The Committee would therefore like to see a change whereby the staff of special schools consider the residence of handicapped children as a temporary expediency, designed to fit them for a return to normal living outside the school or institution. In particular, the Committee urges that every effort be made to counter a tendency to isolate handicapped people from their fellows any more than is advisable or necessary and in fact the earlier they return to a life in normal society the better.

The Committee would, however, like to emphasize that this cannot be achieved unless a system of special service is introduced to assist in the exercise of resettlement. Such a service would need to be started by trained counsellors and placement personnel. Their primary function would be to secure the means by which opportunities for higher learning, vocational training and employment may be provided for the handicapped person.

While the essential differences in the various types of handicap preclude the possibility of a type of "special education" common to all kinds of handicap, it is possible to cross the boundaries at the point where sheltered vocational training is provided. It allows for trainees with differing handicaps to work together, and this in turn leads to similar conditions in sheltered employment.

A particularly unfortunate condition is where multiple-handicaps are centred in one person, and this calls for both specialized staff and related amenities, albeit expensive. It is nevertheless the duty of society to provide for the well-being of such people.

A further observation related to the range in type and degree of handicaps encountered is that there can be no generalized training of teaching staff, except for a very limited common ground of study in psychology. With regard to methodology, there is no training for special education, but only training of teachers for the blind, teachers for the deaf, teachers for the mentally handicapped and so on. Although it is proposed that the various cadres of specialized teachers be trained at one central college, the content of the several courses must of necessity be different in each case.

The last general observation is that the incidence of handicapped people is known to be large. But it is not known how large it is. The Committee would therefore like to emphasize that one of the most urgent needs in the country is that the extent of the problem should be assessed, and that the task of arranging for a survey and research be allocated to the proposed Co-ordinating Committee of involved bodies, both Government Ministries and voluntary agencies. When the size of the problem is ascertained it will be recognized

that the meeting of the needs is going to call for a very extensive programme of education, training and resettlement. This programme will require the utilization of human and financial resources on a large scale. The various voluntary agencies have applied themselves assiduously to the raising of funds, both locally and overseas, secondment of trained staff, the training of teachers, and the undertaking of programmes of capital development from the beginning. The Kenya Government has undertaken the national responsibility for the care and well-being of the handicapped community, allowing for and welcoming the continuing involvement of the voluntary agencies in close co-operation.

The Republic of Kenya has come a long way in developing the programme envisaged in the report of the Committee under the chairmanship of the then Hon. E. N. Mwendwa (1964) and can be rightly proud of the current provisions being made. In particular, the type of production-oriented education given to the handicapped and destitute children facilitates self-employment to a much greater extent than formal education as such. At a time when products of pure formal education are finding it difficult to go into wage or self-employment, it would be gratifying to be able to learn from special education the relevance of production-oriented education for self-reliance. In spite of these successes, however, the Committee must give a word of caution that in the meantime there are no grounds for complacency. There are still large areas where the needs are acute and the numbers of highly dependent handicapped children continue to grow.

## 8.2 Goals and Programmes of Action

### 8.2.1 Diagnosis and Public Education

Severe physical and mental handicaps are relatively obvious even to the parents and the public. The less severe forms are often difficult to detect without special diagnostic facilities. Yet it is in these less severe handicaps where a great deal of compensation and self-reliance can be achieved through special education. An early diagnosis is necessary if the child is to benefit from special education. The Committee has made the following recommendations in this regard.

*Recommendation* 157

*To co-ordinate diagnostic activities and public education aimed at encouraging and enabling the public to identify the various types of handicap and to seek the appropriate assistance.*

*Recommendation* 158

*To create an awareness on the part of the public on the causes of physical disabilities with a view to facilitating prevention of their proliferation.*

*Recommendation* 159

*To collect existing data, undertake a survey and develop long-term research to evaluate and establish the extent and nature of handicaps and the needs for special education.*

### 8.2.2 Special Pre-primary Schools

If the diagnostic services and public education do facilitate detection of the various forms of handicap, it will be essential to admit these children to special pre-primary schools or units of normal schools. In cases where the handicap is not severe the preparation the children get in these schools should enable a large number of them to go to ordinary primary schools. These special pre-primary schools need to be established as recommended below.

*Recommendation* 160

*To establish pre-primary schools within special schools to enable handicapped children to start training early enough in preparation for primary schools.*

*Cost to be borne by the sponsoring agency.*

### 8.2.3 Special Primary and Secondary Schools

One of the shortages in special education relates to facilities for children with multiple handicaps. There is also need to establish secondary schools for the deaf and additional ones for the blind as recommended below.

*Recommendation* 161

*To establish additional services for children with multiple handicaps and to establish secondary schools for the deaf and additional ones for the blind in relation to primary school output.*

### 8.2.4 Fees and Equipment

One of the basic problems in special education is the cost of the special equipment the handicapped must have. For example the following is the cost of basic equipment for one blind student at 1976 prices:—

| | *K.Sh.* |
|---|---|
| Perkins brailler ... ... ... ... ... | 12,000 |
| Typewriter ... ... ... ... ... ... | 14,400 |
| Tape recorder ... ... ... ... ... ... | 5,600 |
| TOTAL ... ... ... ... ... ... | 32,000 |

The Committee would like to emphasize that these are the essential items required to outfit the blind student or teacher today. Since this is the only way in which these handicapped people can be integrated into society, the Committee urges that every effort be made to find the resources to provide

the students with the equipment. These resources should be obtained from public funds although parents will be expected to contribute according to their ability. Only in this way will it be possible to reduce the dependence of the handicapped on other people by making them increasingly self-reliant.

*Recommendation* 162

*To arrange for remission of fees where the family income is proved inadequate.*

*Recommendation* 163

*To enable each handicapped child to possess basic individual literacy equipment.*

*Recommendation* 164

*To integrate the special equipment grant relating to any student into the normal system at any level of education.*

*Recommendation* 165

*To give a more realistic equipment grant to schools and colleges catering for the handicapped on the basis of the real needs of the particular types of handicap.*

### 8.2.5 Social Integration of the Handicapped

Traditionally special education has been planned and developed in separate institutions from ordinary educational institutions. This may have contributed greatly to the attitudes that the handicapped would always be treated in isolation from the rest of society. The Committee would, however, like to emphasize the need to make handicapped people self-reliant and fully integrated into society both in schools and in the wider world as recommended below.

*Recommendation* 166

*To follow a policy of integration of the handicapped in society, especially in cases where the handicap has been adequately compensated for by special education and facilities.*

*Recommendation* 167

*To expand existing amenities and establish additional services to enable handicapped children to be integrated into normal schools as far as possible.*

## CHAPTER 9—UNIVERSITY EDUCATION

### 9.1 Evaluation

University education in Kenya is part of the tertiary or post-secondary system of education and training. The University of Nairobi and its constituent Kenyatta University College are the main source of university level manpower for the country. Although it is administered under the Ministry of Education, it caters for practically all the Government Ministries, especially in the professional fields. The Committee was made to understand that there was no co-ordination machinery at the national level to enable the consuming Ministries to participate in the planning, development and evaluation of university education in the country. The Committee regards this as an important managerial requirement for ensuring that facilities and programmes used for university education are of relevance to the country's needs. In this regard, the Committee would like to see more Government resources being made available for university education and training through the consuming Ministries. The training levy is available to offset some of the costs of some of these educational activities.

Many of the Government Ministries run their own post-secondary training institutions. The products of these training institutions will eventually work alongside university graduates in their respective occupations. In view of this fact the Committee would like to see much closer co-ordination between university education and all other institutions of the post-secondary system. This should facilitate the process of working out the most desirable relationships between personnel of different skills and qualifications.

Forms V and VI have been developed in secondary schools specifically for providing candidates for university education. But like other sectors of formal education the output of the University is restricted to the needs of the modern sector of the economy. As a result of this restriction a number of problems have been developing during the past few years. Firstly, the University is no longer able to take all Form VI candidates with minimum entry requirements. Yet these students have all studied with the sole aim of going to the University. Secondly, within the University itself, the majority of the students who are admitted are not able to get into the courses that are their first choices but are directed to their second and third choice courses or even to courses they have not chosen at all. Thirdly, graduates of the arts subjects are experiencing increasing difficulty in obtaining employment.

These developments have been compounded by financial problems which have been imposed by inflation and such other factors as the year-to-year planning and financing of the University. The Committee has therefore

concluded that secondary education needs to be changed to make it predominantly terminal at Form VI so as to cater for those who are not admitted to the University. The Committee also suggests that a review be carried out of the course offerings at the university institutions so that those areas whose graduates are badly required by the economy can be given appropriate emphasis. In particular, courses in the sciences and related professional fields would appear to need greater emphasis and careful planning. It is the firm view of the Committee that university education needs to be planned on a long-term basis and financed in a manner that facilitates the achievements of the national objectives for university level manpower. The expensive nature of university education makes it necessary to plan and develop it on a long-term basis. The following historical account shows this was largely the way higher education has been developed in the past but has been abandoned since the last triennial plan of 1970 to 1973.

When in 1970 the University of Nairobi was established as a national institution of higher learning in Kenya and its objectives and functions defined by the national legislature, many new hopes and expectations were raised, especially with regard to the need to increase the output of badly needed high level manpower for a rapidly growing economy.

On the basis of planning completed beforehand, this particular expectation was largely met in the period between 1970 and 1975 at the end of which the University of Nairobi had produced about 3,500 graduates.

This represented a three-fold increase in output over the number of graduates that had been produced during the previous five-year period of 1965 to 1970 when the institution was a constituent college of the federal University of East Africa. Only about 1,050 were produced then. Meanwhile Kenyans were obtaining higher education elsewhere in East Africa and abroad.

The establishment of the national university also ended an important chapter in the history of higher education in East Africa which had been initiated and located, in Makerere, Uganda, by colonial authorities to meet the needs for higher education for Africans in the three East African countries as well as those of Zambia and Malawi.

This would appear to have been the main reason why there seem to have been no plans to establish any institutions of higher education in Kenya until negotiations between Makerere and London got under way for Makerere students to take degrees of the University of London. The then colonial government of Kenya became convinced about such a need and in 1947 drew up a plan to establish higher technical and commercial education in Nairobi.

This led to the establishment of the Royal Technical College of East Africa in Nairobi through a Royal Charter issued in September, 1951. The college

was to produce higher technical and commercial education for the countries of East Africa.

In the meantime, the Asian community in East Africa had formed the Gandhi Memorial Academy with the aim of planning and building a college of higher learning in arts and science in Kenya as a living memorial to Mahatma Gandhi.

This project was then merged with the technical and commercial one by the incorporation of the Gandhi Memorial Academy into the Royal Technical College of East Africa. The first students to enter the college were admitted there in April, 1956.

But it was soon realized that higher education in Kenya needed to be worked out on a more rational basis. A working party was therefore set up in July, 1958, under the chairmanship of the then Vice-Chancellor of the University of London to make appropriate recommendations.

The working party reported the following year. One of their main recommendations was that the Royal Technical College should become the second university in East Africa after Makerere. The recommendation was accepted.

The Royal Technical College was then re-named the Royal College, Nairobi and entered into similarly special relations with London University as applied to Makerere. Students taking courses in arts, science and engineering could therefore prepare for bachelor degrees of the University of London.

Courses in architecture, land and building economics and commerce, however, continued to be offered for the qualifications of the respective British professional bodies.

All this time it had been understood that the formalities which Makerere and Nairobi had with London University would need to come to an end sooner or later and that national institutions of higher education would be established within the countries of East Africa.

The first step towards this goal was taken on 28th June, 1963, when the University of East Africa was formally established as a federal university with constituent colleges in Nairobi, Kampala and Dar es Salaam. It started to offer its own degrees and by 1966 the London degrees had been phased out.

As a constituent college of the federal university the Royal College, Nairobi was re-named University College, Nairobi. One of the first additions to the college in 1963 was the Institute of Adult Studies which had just been created by merging the College of Social Studies, established at Kikuyu in 1961, and the extra-mural studies which had been organized in the country by Makerere.

The next addition to the College was the Institute of Development Studies which was established in 1965 to undertake large-scale research on contract from the various Government departments on economic problems of Kenya.

In July, 1967, the Faculty of Medicine was established. When the University of East Africa was dissolved in 1970, the University College, Nairobi had grown into a fully fledged national institution of higher learning and was re-named the University of Nairobi. On the basis of recommendations of a working party on higher education in East Africa, the University was further developed that year through the addition of three new faculties, namely those of agriculture, education, and law, the Institute of African Studies and the School of Journalism.

As far as Kenya was concerned, the long and indirect route that had been taken by higher education in East Africa had thus come to a successful national maturity. This was fully demonstrated by the ability of the University of Nairobi to take Kenyatta University College under its wings as its first constituent college as stated in the University of Nairobi Act. Since then, however, the relationships between the University and the College have not been clarified in adequate detail. The Committee would like this to be done as a matter of urgency. It is also the view of the Committee that Kenyatta University College should be developed into a fully fledged university. The Committee was made to understand that it had been planned by the Government to move the entire Faculty of Education from the main University to Kenyatta University College. The aim had been to locate all graduate teacher training at the College. It is the view of the Committee that the College should be permitted to grow on multi-disciplinary basis to full university status and not restricted to teacher education alone. In this regard therefore the Committee has suggested that the planned transfer of the Faculty of Education should be stopped to allow the development of the College to be worked out on a long-term basis.

The growth of university education into such a complex and expensive organization implied that its further development must be planned on a long-term basis. A triennial plan was drawn out and followed during 1970 to 1973. A University Grants Committee was convened in 1971 to make proposals for the years 1972 to 1975. The Committee was made to understand that this triennial system of planning and development was largely abandoned and a year-to-year system adopted after 1973 due to financial problems imposed on the country by inflation. The Committee also noted with concern that no long-term plan had been drawn up after the 1972 to 1975 period. In view of the importance of university institutions in national development the Committee urges that the planning and development of university education be done on a long-term basis and that, consequently, it be synchronized with the processes of national planning and development.

Many of the problems of university education are due to the high economic expectations of the public on acquisition of a university degree. There has been increasing public pressure to expand admission opportunities. This has led to considerable misunderstanding about the role of the University in national development. The Committee considered the possibility of creating more university places within the existing institutions as an interim measure for qualified applicants who were prepared to pay the full costs of tuition. It was evident to the Committee that this could not be done as the Government had stated in the 1974 to 1978 Development Plan that there would be no more capital development on the main University of Nairobi complex. The Committee therefore came to the conclusion that the answer lay in developing Kenyatta University College to full university status and a third university institution thereafter.

There also seems to be public misunderstanding about the University's place in the general organization of education, its function in the articulated mechanism of national life as a whole and its potential capacity to influence and guide the values of society. The Committee would therefore like to see clear and frequent communications of a public relations nature being made to the public to explain fully the goals and limitations of university education. But such communications can only have meaning to the public if adequate provision is also made to absorb the senior secondary leavers who are not offered admission into the University.

The University exists in order to develop manpower who have the motivation, the skills and knowledge to serve the nation. To achieve this the University has been expected to direct its efforts into advancing technological independence which will facilitate social and economic development of the country. The University is also expected to make continuing and critical analysis of the objectives and programmes of economic development based on knowledge of the realities of the country.

At this stage of Kenya's development, the University of Nairobi is primarily a centre for training the high level manpower required for the general development of the nation. The variety, content and orientation of the courses that are being offered at the University are expected to relate directly to the Kenyan environment and national requirements. The University is also expected to provide a home for basic research which is combined with teaching. Such a combination of research and teaching is a unique feature of the university as it facilitates the exposure of youth to new developments in the scientific and technological fields. It is a feature which is not found in institutions of pure research. The Committee was made to understand, however, that the provision of funds for university research has generally been inadequate in spite of the demonstrated potential of the University for contributing to research which is oriented towards development. The Committee would therefore like to emphasize the need for supporting well planned

and co-ordinated university research that is required for accelerating national development.

The question remains as to whether at the national managerial level of education the role and contribution of the University has been adequately evaluated, synchronized and integrated with all the other aspects of national development. The evidence available to the Committee indicated that this has not been adequately done. Yet it is only through such co-ordination that it will be possible to continue to make the best use of the resources at the University in response to the rapidly changing needs of the nation. The Committee has concluded that this can be achieved by closer synchronization of university planning and development with the processes of national planning and development. It can also be achieved by increased utilization of the university personnel in national planning and development because the University provides the greatest reservoir of experts in the country in almost every field and the talents thus available should be fully utilized before experts are sought abroad.

The relatively rapid development of the country and the departure of foreign personnel during the first decade of independence demanded a rapid increase in the number of the university places. The University of Nairobi has continually responded to this demand which has been aimed at meeting the unending requirements of modern and increasingly technological society for higher knowledgeable and skilled manpower. As pointed out elsewhere, the University of Nairobi produced about 3,500 graduates in the five-year period 1970 to 1975 compared with only about 1,050 graduates in the previous five-year period. As a national institution of higher learning the University of Nairobi has reflected the expectations and values of the society of which it is a vital part. The University is not immune from the effects of problems that face the society. In this regard the University has had its share of the general unrest of youth that has been occurring in the country and in the world at large.

The needs and expectations of society depend on the social and economic situation. They are part of the social system of values. These needs of society are mounting in range and volume all the time. This is being reinforced by an acute and widespread sense of urgency, especially in the developing countries that are often having to strain their resources to bridge the gap between them and the more developed countries. This intense sense of urgency is generating a compelling drive for change. As a result there is often a growing distrust towards the slow processes involved in finding solutions to problems. This has been particularly evident in many of the incidents of unrest among youth. In all this, however, the University has an obligation to put the resources of critical scholarship at the disposal of the nation in trying to find solutions.

So far, higher education has been charged with production of men and women for the modern sector of the economy, namely, the high status and

well paid jobs in Government, industry, commerce and large-scale farming. This absorbs a relatively small fraction of the labour force. Yet parents, students and society in general regard the acquisition of a university degree as a means to the best personal and social advancement. Every effort is therefore made to gain a place in the University, even when the motivation, drive and merit to gain from university education are lacking.

There is need to create prosperous rural economies to provide expanding markets for manufactured goods and to stop the migration of rural populations to the towns. The University institutions should continue to play their role in this aspect of national development by adapting the education they give in agriculture, veterinary medicine, human medicine, architecture, science, education, commerce, engineering and even humanities, to the changing needs of society. This should be achieved through a rearrangement of curricula, emphasizing new requirements on staffing, redirecting and re-organizing research programmes and co-operating with the Government. The University must recognize that rural development includes, and goes beyond, the mere increasing of agricultural output and productivity. It requires the extension of health and educational services, expansion of rural trade and commerce, organization of co-operatives, the creation of local industries for processing of agricultural products, the improvement of housing, water supply, sanitation and roads. These developments in turn require large-scale investment of human, technical and financial resources in primary agricultural production and related industrial activities.

The Committee would like to stress that the pursuit of the University's fundamental task of advancement of knowledge and human welfare through the cultivation of reason, free inquiry and dialogue should always be inspired and sustained by a deep sense of dedication. Without this the institution loses the root of its usefulness and strength as well as its support and justification for its existence and becomes prey to indifference and irresponsibility.

While the development, storage and use of knowledge has been the basis of the power behind technological transformation, too much is being expected of education today, especially university education, in relation to the many and varied social and economic problems of society. As a result there has been a tendency for disillusionment to occur regarding the educational system when it has not done or fulfilled many of the things that people wanted it to do or were promised it would do such as automatic access to gainful employment. Furthermore, the public need to understand that apart from measuring the value of university education in terms of productivity and cost-effectiveness, many of its benefits may not in fact be immediately visible but will be fully realized by posterity.

In order to achieve the complex and expensive goals and functions of university education, it is therefore essential to plan all the necessary development of facilities and resources well in advance. The Committee was, however, informed that since 1974 there had been arguments between the Ministry

of Education and University authorities with regard to levels and methods of financing the University.

This argument was still current during the academic year 1976/1977 when no agreement had been reached between University and Government authorities towards the end of the first term as to what would be the appropriate budget for that year. The following table illustrates the pattern of relationships between the budget requests of the University, the allocations by the Government and the actual expenditure.

TABLE 9.1—UNIVERSITY OF NAIROBI EXPENDITURE 1971/1972 TO 1976/1977
(in millions of K£)

| Financial Year | University Estimate K£m | Government Allocation K£m | Actual Expenditure K£m |
|---|---|---|---|
| 1971/1972 .. .. | 3·1 | 2·8 | 2·71 |
| 1972/1973 .. .. | 3·8 | 3·6 | 2·98 |
| 1973/1974 .. .. | 4·46 | 3·9 | 3·32 |
| 1974/1975 .. .. | 5·5 | 3·8 | 4·11 |
| 1975/1976 .. .. | 5·9 | 3·9 | 5·54 |
| 1976/1977 .. .. | 7·2 | 3·48* | — |

*At the time of writing, this figure had not been confirmed.

The Committee therefore suggests, as proposed by the University Grants Committee of 1971, that a long-term and adaptable national policy on higher education within which to work out the short-term patterns of recurrent and capital financing be formulated. Towards this end the Committee urges that the proposed Higher Education Bill be processed as a matter of urgency and long-term planning of higher education be carried out.

## 9.2 Goals and Programmes of Action

### 9.2.1 UNIVERSITY PLANNING AND DEVELOPMENT

The Committee would like to emphasize that in an institution like the University whose commitments are often long-term and whose educational programmes extend for up to 5 years, it is essential that its planning and development should be done on a long-term basis. The most rational way of doing it for Kenya is to synchronize it with the processes of national planning and development. Within that four-year planning period the annual and detailed estimates can be worked out as recommended below.

*Recommendation* 168

*To plan university development, including the staffing and financing, on a long-term basis and to synchronize it with national development planning, ensuring that in the annual budgetting exercise the priorities and financial provisions allowed for in the long-term planning are adhered to as far as possible.*

### 9.2.2. Commission on Higher Education

The Ministry of Education has been processing a Higher Education Bill to guide the future incorporation of educational institutions for university education. The Committee urges that this be accelerated so as to have the Commission on Higher Education operational in 1977.

*Recommendation* 169

*To set up a permanent Commission on Higher Education, under the proposed Higher Education Bill, to advise the Government on the planning, curricula, staffing and financing of higher education.*

1977—*Establish Commission on Higher Education with full-time secretariat and funds for travel and subsistence of members.*

*Recommendation* 170

*To review university enrolment targets and entrance requirements through the proposed Higher Education Commission and in consultation with the University.*

### 9.2.3 Kenyatta University College

Kenyatta University College is the first and only constituent college of the University of Nairobi. The relationships between the two institutions are not clearly and adequately defined in the University of Nairobi Act or in any other legislation. The Committee suggests that this be done as a matter of urgency. Furthermore the College should now be planned to become a full university institution.

*Recommendation* 171

*To clarify the present relationships between the University of Nairobi and Kenyatta University College and to formulate the necessary legislation.*

*Recommendation* 172

*To plan the future development of Kenyatta University College into a full university status.*

1976 *to* 1986—*Develop Kenyatta University College towards the ultimate target of* 5,000 *students.*

*Recommendation* 173

*To stop the planned transfer of the Faculty of Education from the main University of Nairobi Campus to Kenyatta University College.*

### 9.2.4 Third University Institution

It is proposed by the Committee that, when Kenyatta University College has grown to its optimum size a third university institution should be established.

*Recommendation* 174

*To establish a third university institution.*

1989—*Open the third university to take the increased products of the new secondary education.*

### 9.2.5 External Degree Programme

In a country like Kenya there are inevitably a large number of people who did not get an opportunity to benefit from university education but would like to do so while continuing in their respective occupations. The Committee has been made to understand that a programme has been planned and will be implemented as soon as human and financial resources permit. The Committee reiterates the need to accelerate this programme.

*Recommendation* 175

*To develop an external university degree programme to enable those who are not able to undergo a full university residential education to further their education.*

### 9.2.6 Extra-mural Study Programme

The extra-mural study programme has done a great deal in the field of adult education in the country. The results in such areas as small-scale business have been very encouraging. The Committee therefore urges that more resources be found to enable the programme to serve more people in the rural areas.

*Recommendation* 176

*To overhaul and expand the present extra-mural study programmes into a more comprehensive university extension service to serve greater numbers in the rural areas.*

### 9.2.7 Use of Provincial and District Facilities for University Teaching

One of the popular criticisms against the University is that it is an ivory tower divorced from the social and economic realities of the country. While curricula and teaching programmes have been adequately modified to make them increasingly relevant to the problems of the country, more could be done to expose students to the real conditions at provincial, district and even location levels. A large measure of this has been achieved in the training of doctors by the Faculty of Medicine whose formal programme includes field residential training, during term time, based in Machakos District. The provincial hospitals and selected health centres are also being developed and provided with the necessary facilities for university medical education. This part of the training is undertaken by senior medical students whose work also constitutes useful service. Other faculties and departments have field work which is carried out largely during vacations or fourth term. The

question is whether some similar programmes can be worked out for all or most of university education. It is the view of the Committee that it would be a practical way of facilitating interaction between university and the people.

*Recommendation* 177

*To develop provincial and district facilities and institutions for university teaching so as to give students more work experience and on-the-job training as part of their training.*

### 9.2.8 Additional Programmes

From the point of view of long-term national development planning, the arid regions of the country will receive increased attention. But it is going to require training and recruitment of Kenyans in areas of science and technology which are deficient. These include mining and chemical engineering and arid zone technology. Kenya has a long coastline which needs marine scientists and technologists for development.

*Recommendation* 178

*To create additional programmes at the University of Nairobi in scientific and technical fields not presently taught such as mining engineering, chemical engineering, water engineering, marine and arid zone science and technology.*

### 9.2.9 Post-graduate Training

Post-graduate training provides the various types of specialized personnel that the country requires. It is also an essential component of research and development work. It is from trained post-graduates that the bulk of university teachers are drawn. It is, however, relatively expensive and must be planned according to national needs. In view of the unplanned manner in which it has been done due to lack of clear guidance on national needs, the Committee urges that a real effort be made to rationalize, plan and support the training programmes adequately.

*Recommendation* 179

*To rationalize post-graduate programmes of the University according to national needs, with special reference to requirements for university teachers and other specialized manpower.*

### 9.2.10 Relationship Between University and Polytechnics

The University and national polytechnical institutions have developed to an extent where they could make very major contributions in science and technology through co-ordination of their work. This observation applies to many institutions. It is particularly urgent between the university and the

national polytechnics in view of the role they could play in research and development work related to such needs as labour-intensive technology for rural development.

*Recommendation* 180

*To examine critically the present demarcation between academic courses at the University of Nairobi and technical courses at the polytechnics with a view to achieving better co-ordination.*

### 9.2.11 Kiswahili

Kiswahili is the national language for Kenya. It must therefore be made available to schools in the most appropriate form educationally. University institutions must therefore be enabled to make proper scholarly studies of the subject to facilitate the production of appropriate literature and other educational materials.

*Recommendation* 181

*To promote the study and teaching of Kiswahili at the university institutions.*

Table 9.2—Kenyan Students Enrolled at University Institutions in East Africa, 1961/1962 to 1975/1976

(First Degree Students only)

| | Nairobi | Kenyatta University College | Makerere | Dar-es-Salaam | Total |
|---|---|---|---|---|---|
| 1961/62 .. .. | 30 | — | 200 | — | 230 |
| 1962/63 .. .. | 90 | — | 190 | 10 | 290 |
| 1963/64 .. .. | 160 | — | 190 | 20 | 370 |
| 1964/65 .. .. | 220 | — | 210 | 60 | 490 |
| 1965/66 .. .. | 380 | — | 220 | 80 | 680 |
| 1966/67 .. .. | 490 | — | 250 | 130 | 870 |
| 1967/68 .. .. | 710 | — | 300 | 120 | 1,130 |
| 1968/69 .. .. | 860 | — | 360 | 140 | 1,360 |
| 1969/70 .. .. | 1,110 | — | 440 | 180 | 1,730 |
| 1970/71 .. .. | 1,630 | — | 460 | 210 | 2,300 |
| 1971/72 .. .. | 2,300 | — | 290 | 250 | 2,840 |
| 1972/73 .. .. | 2,760 | 210 | 360 | 210 | 3,540 |
| 1973/74 .. .. | 3,490 | 550 | 240 | 170 | 4,450 |
| 1974/75 .. .. | 3,980 | 840 | 370 | 90 | 5,280 |
| 1975/76 .. .. | 3,980 | 910 | 180 | 70 | 5,140 |

**Source:** Ministry of Education Annual Reports.

Note: Enrolments of Kenyan students on university courses outside East Africa have been substantial but difficult to estimate.

# CHAPTER 10—TECHNICAL AND OTHER FORMS OF POST-SCHOOL VOCATIONAL TRAINING

## 10.1 Evaluation

While formal school provides the basic skills of reading, writing, numerating and interpreting, post-school systems of education and training offer specific skills related to occupational activities. The Committee has emphasized in this report that self-employment in rural areas will have to become one of the main ways of creating occupational opportunities for the majority of school-leavers in future. Many of the skills required for this will have to be found in a co-ordinated and greatly expanded post-school system of education and training in technical, commercial and other professional skills. This is going to call for effective co-ordination of education and training activities as proposed elsewhere in this report. It will also be necessary to define accurately the relationships between formal education and post-school system of skill acquisition and training. It became evident to the Committee that one source of the problems related to education was the belief that formal education automatically led to wage employment and individual economic advancement. As a result there has not been the kind of understanding which is necessary for designing and developing the most appropriate systems of post-school vocational training. In particular, the Committee notes with concern the tendency to base vocational training on the immediate needs of the modern sector of the economy.

It must be realized that the future of a vocational trainee depends on the general preparation he gets to give him maximum vocational mobility as well as on acquisition of specific skills for immediate employment. Yet some industries are reported to be giving their vocational trainees the kind of training that forces them to remain employees of that particular industry. This comes about as a result of giving the trainees training and qualifications that may not be recognized beyond that particular industry, thereby enslaving the trainee in an effort to avoid loss to other occupations.

The Committee was also made to understand that while increasing numbers of school-leavers were unemployed, there were areas of national development that were being hampered by lack of skilled Kenyan personnel. One of the steps taken by the Government to rectify this situation was the introduction of the Industrial Training Levy to encourage industries to undertake more training of Kenyans. The cost of such training would be recovered from funds accumulated from levies charged to all industries. Some industries are reported to have responded and established very relevant training

programmes. Others, however, are reported to have shown little or no interest in training Kenyans. As a result they have interpreted the training levy as a form of Government taxation. Since they cannot recover the levy money from levy funds as they have not trained any Kenyans, they tend therefore to recover the cost in the price of the commodities they produce. This results in a double disadvantage to the country, namely, continued shortage of skilled Kenyans and increased prices of consumer goods and services. The Committee proposes that this matter be sorted out urgently through more effective and co-ordinated Government control of all forms of vocational training. One of the ways of achieving this goal must be increased use of Government facilities for post-school vocational training.

One of the features of post-school education and training in the country that the Committee would like to see dealt with has been the relatively late start by the Government of the important area of business studies. As a result, a lot of business education and training institutions are largely in private hands. It is true that these private institutions have made a tremendous contribution to manpower development in the country in that large numbers of administrative and executive personnel serving in the country have been trained by them. What the Committee would like to see is more effective guidance and control by the Government regarding the quality of training and trainers.

Apart from university education, post-school education and training includes training at such institutions as the National Industrial Training Centres in Nairobi, Kisumu and the planned one in Mombasa, the Crafts and Trades Training Centres of the National Christian Council of Kenya in Nairobi and Mombasa. These are self-financing in that their products are sold. For example the centre in Shauri Moyo in Nairobi was originally financed from Germany. Its products now earn about Sh. 150,000 a month. It trains children who have not taken the CPE.

The national polytechnics at Mombasa and Nairobi train middle grade technicians and business administrators.

Other training units include the National Youth Service, Harambee Institutes of Technology, Village Polytechnics, training within industries, rehabilitation of prisoners, training of prison warders and technicians, the training of policemen as mechanics, drivers and administrators, training and retraining of civil servants, and training for hotel staff and tour operators who have the capability to explain to tourists the various aspects of the Kenyan environment. With regard to technical education, the Committee would like to emphasize the need to make it recognize and respond to new strategies that must be adopted for social and economic development.

The objectives of technical education vary from country to country and from time to time, even in the same country, depending on the nature of the

most pressing problems of the country at any one time. In many countries it has been the process of industrialization that has stimulated the growth of technical education.

In an agricultural country like Kenya, the growth of industry ought to be based on intensified and diversified agricultural production and processing industries. It would therefore be logical to assume that such industries as food technology, building technology, industrial technology, food storage, transport and agricultural engineering are going to be of increasing importance if agricultural industry is to grow rapidly.

With the growth of adequate agricultural industry it can be expected that there will be more opportunity for apprenticeship jobs for school-leavers in the rural areas and small urban communities and for subsequent self-employment.

The general objective of post-school technical education should therefore be to facilitate the social and economic development of the rural areas of the country by providing badly needed technical personnel.

Technical education basically involves the acquisition of the knowledge and technical skills which are necessary for the practice of the various trades, vocations and professions. The training makes the required emphasis on the necessity to be able to use various types of machinery and scientific equipment. In this regard the Committee has emphasized elsewhere in this report the need to design, develop and use the most appropriate forms of technology related to the needs of rural development and self-employment.

Post-school technical education must therefore be aimed at the practical person competent in the application of the required building, simple mechanical, electrical, managerial and other technical skills to development problems. A great amount of instructional time must therefore be spent on the practical aspects of the training in the real setting of rural areas.

In building technology, for example, it is expected that the technical personnel will facilitate the development of the type of construction which makes better use of local materials and local labour and which produces the sort of houses that are related to the needs of the people for whom they are built.

Water technology is another feature that is of special importance to a country like Kenya, both from the point of view of human needs and from the point of view of water development for agricultural and industrial purposes.

It is therefore very gratifying indeed to see that a Government Ministry has been established to deal with water development. The Committee would like to point out, however, that while the long term goal of the Ministry is to deliver piped water to every home, there is urgent need to enable many people to filter the contaminated water they drink in the meantime. This

can be achieved with simple sand filters that can be made easily in workshops of educational and training institutions. This requires Government encouragement and support.

Arid land technology is also likely to be of vital importance in order to maximize the use of the land which can be made available for agriculture and other purposes. Technical education in such areas as forestry, surveying and geology will therefore become increasingly important in making this possible.

Marine technology will also be of great importance in view of the long coastline and the lakes that the country possesses. Fish production and other aspects of marine development in these environments would be of significance socially and industrially.

It is necessary for technical education to be developed in close functional relation with the commercial and industrial developments of the country. This would create facilities to enable the newly qualified technologists to establish themselves quickly in rural self-employment. It would also ensure that the training programmes are made relevant to the technical, social and commercial problems of the country. The Committee has recommended elsewhere in this report that everything possible should be done to facilitate the growth of the informal sector, with special reference to its potential for development of small-scale businesses, appropriate technology for rural development and on-the-job training. The small scale commercial and technical operations of this sector have accumulated enormous amounts of experience regarding the realities of production, distribution and trade for the majority of people. The Committee would like to see these developments and operations of the informal sector being co-ordinated with the more advanced facilities of institutionalized technical education and training.

It is the view of the Committee that this will be one of the ways of enabling trained personnel to play important roles in the establishment and management of small-scale industries and businesses, either in self-employment or in wage employment.

Apart from the purely technical subjects, it is also important that rural technical education covers other subjects such as book-keeping, accounting, management, environmental and general developmental studies.

With the inevitable multiplicity of the new courses which are likely to be offered for rural development, it is necessary for some national co-ordinating and standardizing authority to be set up. Under such a national body the trainees will be able to study for an integrated approach to rural development.

One of the main problems in the general education of the country is in the large numbers of primary school-leavers who cannot go to secondary schools. A number of technical institutions exist in the country for them to

undergo vocational training, but there is need to continue increasing the number of these institutions and to co-ordinate them.

In Kenya the village polytechnics and National Youth Service have done a great deal to teach young people some of these skills and great effort continues to be made by the Government and voluntary organizations to increase the numbers and effectiveness of these training institutions.

It is the view of the Committee that these are some of the functional areas and institutions which need strengthening and expanding so that in the rural areas there will be vocational and semi-vocational training in farming, handicrafts, forestry, home science, environmental conservation, trade and such other activities as can be successfully organized in the rural areas and small towns.

The Committee has come to the conclusion that modernizing, facilitating and expanding the economy in Kenya does mean enabling the rural economy to grow and raising the quality of life of the people living in rural areas as these constitute the majority of the nation's population. As far as technology is concerned, this also means developing and using the most appropriate labour-intensive, technical equipment and related educational activities.

In particular, the provision of low-cost technology which can be introduced and maintained locally and which creates jobs, especially self-employment, for the rural populations would be a major development. This is an important consideration at a time when unemployment in the country is a big and growing problem.

In addition to expanding technical and business education, the Committee feels that there is need for development and teaching of communicative skills in the arts to enable young people to make a living in such fields as literature, music and fine arts. Facilities should be provided in educational and training institutions for this purpose.

## 10.2 Goals and Programmes of Action

### 10.2.1 Co-ordinated Post-school System

The system of post-school vocational education and training involves a multiplicity of institutions and programmes. Traditionally these have tended to serve the needs of the modern sector of the economy. Since the modern sector has largely drawn from products of formal education, the country is said to have an inverted skill pyramid. There are relatively large numbers of graduates and secondary school-leavers and not the necessary proportionate numbers of personnel of the artisan category.

The Committee has emphasized throughout this report that rural development will become an increasingly important strategy of the country's national development. This will mean facilitating agriculture and related commercial

and industrial operations of small-scale category. It will also mean facilitating growth of the informal sector and self-employment activities.

The Committee would therefore like to point out that this shift in emphasis to rural agricultural, commercial, industrial, technical and self-employment activities is bound to increase the multiplicity and complexity of post-school vocational education and training. In the long run there must therefore be a more effective machinery for providing guidance and co-ordination of the entire system of vocational education and training activities as recommended below. In the meantime the Committee proposes that the Directorate of Industrial Training be strengthened and made to perform these functions.

*Recommendation* 182

*To re-assess the industrial education, secondary technical and technical higher school curricula with a view to considering converting secondary technical schools into a post-school system which includes village polytechnics, National Youth Service, National Industrial and Vocational Training Centres, Kenya Industrial Training Institute and industrial training schools in industry and bringing all these under the supervision of the Directorate of Industrial Training.*

*Recommendation* 183

*To rationalize the names of the various training institutions to reflect their functions (e.g. village polytechnics could be called "community industrial training centres" to differentiate them from the national polytechnics).*

*Recommendation* 184

*To continue to encourage and make provision for the planned expansion of the village polytechnics programme as one of the means through which opportunities to learn productive skills can be provided for school-leavers.*

*Recommendation* 185

*To co-ordinate and facilitate the development of village polytechnics in relation to other technical education and training with a view to integrating them with the programmes of the Directorate of Industrial Training.*

*Recommendation* 186

*To discourage tribalism in Harambee Institutes of Technology through a recruitment policy which, while recognizing the local claims of those who contributed most to the Institute in question, makes provision for a healthy heterogeneity in recruitment.*

*Recommendation* 187

*To provide an adequate mechanism for planning and national policy for guiding the future development of the Harambee Institutes by providing resources to the Co-ordinating Committee which has been set up in the Ministry of Education for the purpose.*

*Recommendation* 188

*To strengthen relationships with industry and post-school educational institutions by the development of access routes from the bottom through the middle to the top courses and institutions in the system.*

*Recommendation* 189

*To establish production units in the Village Polptechnics, National Youth Service, National Industrial and Vocational Training Centres, Christian Industrial Training Centres, Kenya Industrial Training Institute and other relevant training institutions, and to provide financial resources to enable graduates of these training institutions to establish their own or co-operative self-employment in rural areas, including the acquisition of managerial skills, basic tools and financial credit.*

*Recommendation* 190

*To intensify the education of the public with a view to facilitating their ability to use the technical materials produced by the Village Polytechnics and the other related training institutions in order to enhance rural productivity.*

*Recommendation* 191

*To develop post-primary education as a diverse network of skill-providing facilities designed to meet a range of individual needs and abilities within secondary schools, village polytechnics, National Industrial and Vocational Training Centres, co-operatives, and the National Youth Service, all of which would emphasize non-formal, extension and adult education.*

*Recommendation* 192

*To re-define the meaning of terms used in vocational education and to rationalize the names given to different types of institutions and courses.*

### 10.2.2 Training Facilities

The proposed system of vocational education and training for rural development is going to call for a large expansion of Government facilities and better guidance and control by Government regarding the training offered by private institutions. In all this the national polytechnics will be expected to continue to provide facilities and programmes for reference and for the most advanced types of technical education. To be able to do this they must be strengthened according to the extent to which they will be called upon to increase their operations as the recommendations made in this report are implemented. The following recommendations are made in this regard.

*Recommendation* 193

*To provide and use Government training facilities in public utilities.*

*Recommendation* 194

*To encourage, through the National Industrial and Vocational Training Centres levy, the public sector and those private industries which are able and willing to conduct industrial training beyond their own immediate needs.*

*Recommendation* 195

*To widen entry requirements to the national polytechnics and identify new entry routes for successful future secondary school-leavers and those of the Harambee Institutes of Technology as well as for unqualified but successful workers in mid-career (e.g. charge hands and foremen).*

*Recommendation* 196

*To supplement recruitment of private and sponsored students through the provision of additional Government bursary awards.*

*Recommendation* 197

*To provide for the development of creativity, innovation, research and industrial consultation in the national polytechnics in collaboration with the University of Nairobi.*

*Recommendation* 198

*To establish realistic staff recruitment and staff development programmes supported by an upward revision of salary scales to enable the national polytechnics to fulfil their roles successfully.*

*Recommendation* 199

*To develop and strengthen the existing range of courses and to initiate similar courses in many new areas of national industrial and commerical development.*

*Recommendation* 200

*To establish a correspondence course unit in the national polytechnics to provide training leading to technical qualifications.*

*Recommendation* 201

*To encourage training institutions to develop their own co-operative enterprises to extend and fortify the principle of on-the-job training.*

### 10.2.3 Regulation of Industrial Training

Many industrial organizations provide training which is not recognized anywhere else except within the immediate needs of the industry. The trainees thus become virtually obliged to stay with the particular industry. As a result there is a tendency to employ them on very poor terms as they have no way out. It is proposed that everything should be done by the Government to convince such industrial organizations of the need to train Kenyans to correct manpower shortages and to do so at levels which are recognized nationally and internationally.

*Recommendation* 202

*To regulate all industrial training to ensure that it conforms to the overall priorities of national planning and established welfare standards for the individual.*

*Recommendation* 203

*To develop greater Government regulation of the private sector training to ensure harmonization between the interests of the private industry and the requirements of the individual and the needs of the nation.*

TABLE 10.1—ENROLMENTS IN TRADE SCHOOLS, SECONDARY TECHNICAL SCHOOLS AND POLYTECHNICS, 1966 TO 1974

| | Trade Schools | Secondary Technical | Kenya Polytechnic | Mombasa Polytechnic |
|---|---|---|---|---|
| 1966 | 1,360 | | 1,540 | n/a |
| 1967 | 620 | 860 | 1,810 | 870 |
| 1968 | 650 | 1,380 | 1,900 | 990 |
| 1969 | 320 | 2,020 | 2,040 | 1,040 |
| 1970 | 290 | 2,520 | 2,860 | 880 |
| 1971 | — | 3,050 | 2,810 | 950 |
| 1972 | — | 3,210 | 3,610 | |
| 1973 | — | 3,530 | 2,710 | 1,010 |
| 1974 | — | 3,800 | 3,300 | 1,020 |

**Source:** Ministry of Education Annual Reports.

NOTES:—(1) In the late 1960s trade schools were phased out, and were replaced by institutions offering technical education courses parallel to secondary education.

(2) Enrolments at the Polytechnics include full-time and part-time students, but in the absence of sufficient data no attempt has been made to turn the latter into full-time equivalents. Also the records are not entirely consistent with respect to the inclusion of evening class students in enrolment statistics.

(3) Mombasa Technical Institute became the second Polytechnic in 1971.

## CHAPTER 11—CONTINUING AND ADULT EDUCATION

### 11.1 Evaluation

It has been made evident to the Committee that one of the social problems to be dealt with in the country is the attitude that education is limited to the schooling period between infancy and attainment of adulthood. This erroneous belief further goes on to assume that schooling should provide everyone with all the knowledge and skills required to meet all their occupational needs for the rest of their lives.

The Committee would like to reiterate that this attitude will need to be dealt with as a matter of great urgency. This must be done in view of the continued belief that schooling does lead automatically to wage employment. This is no longer valid in the rapidly changing social and economic environment of the country today. The increasing level of unemployment of school-leavers provides evidence that the attitude needs to be changed. In its place, the Committee would like to see the development of the concept and practice of lifelong continuing education of which schooling is only a part, and may not always be the most significant part. Furthermore, the Committee reiterates that even for the educated people, the complexities and changing nature of the responsibilities they hold makes it mandatory for them to go on learning new knowledge and skills all their lives.

But in a country like Kenya it is for the large numbers of people who fail to proceed at given ages and levels in the course of their educational careers that the opportunities for lifelong continuing education are of paramount importance. Such people form the majority of the human resource of which the greater part of national productivity depends. If lifelong continuing education can enhance such productivity, then it is in the interests of social and economic development that it should be provided. From the point of view of the individuals concerned, lifelong continuing education ensures that they are not condemned to the state of their educational failure for the rest of their lives. From a national development point of view lifelong continuing education enables them to continually make greater contributions to the totality of the country's productivity.

The Committee, therefore, reiterates the importance of developing the concept and practice of lifelong continuing education for every Kenyan, of which schooling is only a part.

Continuing and adult education provides a non-formal and relatively inexpensive way of responding to the education and employment needs of the whole population. In particular it provides opportunities to those who have left the formal school system and thereby serves to link the formal and non-formal systems. It is the view of the Committee that in order to be

effective, adult and continuing education should be directed towards problem-solving and increased productivity on the basis of an integrated approach to planning and extension services.

The Committee realizes that in spite of the tremendous expansion of primary school places, there is still a significant proportion of children who do not go to school and consequently grow up into adulthood as illiterates. Secondly, many children also drop out of school prematurely and gradually lapse into illiteracy due to lack of reading materials and opportunities to exercise their skills. These two factors continue to contribute to the numerical increase of illiteracy.

In general, illiteracy is a condition which is relative to the function the person is expected to perform. In this respect there are many educated people who allow themselves to become relatively illiterate when the nature of their functions is taken into consideration. It also implies that if a person is not required to perform a particular function in relation to the education he has acquired then it is likely he will be under-utilized and his education will be lost. It is for these reasons that the Committee has emphasized in this report the importance of continuing to train and retrain all working personnel in relation to their functions.

In Kenya, adult education has traditionally been concerned with improvement of the communications skills and knowledge of functional and highly productive people like farmers and workers in factories with a view to making them even more productive.

The Government is reported to be spending about K£11 million in various aspects of adult education. This is a large proportion of the Government budget whose cost, effectiveness and relation to other forms of education need to be continually reviewed and evaluated in relation to the desired objectives of national development. In particular there is need to scrutinize areas where there is overlap of programmes and duplication of the national effort, especially in the multiplicity of extension, adult and health education activities.

One of the problems in trying to develop continuing and adult education is the attitude of parents and others who tend to look at certificates rather than skills. Continuing and adult education tends to be seen as another means of acquiring formal educational certificates which are assumed to lead automatically to better wage employment. This situation in turn has raised the question as to whether adult education should be directed to those who are already functional and need more knowledge and skills to make them perform better or those who cannot read, write and numerate. The Committee has found that it is necessary to provide for both requirements.

The Committee, therefore, reiterates the need to look at all the numerous facets of adult education under an integrated system of lifelong continuing

education which would be continually correlated with the requirements of various occupations in the country. This is a major requirement in view of the fact that formal education as such does provide the adaptive skills which are essential for the country's productivity and general human survival. There is also need to plan for the priorities to be covered by continuing and adult education. It is necessary to do this to avoid making adults go through literacy programmes which have no relevance to their occupational interests. Adult and continuing education is only of particular interest if it facilitates quick returns for the investments made in the productive machinery of the country.

In view of the foregoing the Committee would like to see the system of continuing and adult education receive more public and financial support and acknowledgement that it deserves. The work of adult and continuing education in the country is carried out largely by the Institute of Adult Studies and the Board of Adult Education. The Institute of Adult Studies belongs to several authorities, namely the University of Nairobi where it is situated, Ministry of Housing and Social Services which runs its programmes under the Board of Adult Education and Ministry of Education which gives it a grant. As a result co-ordination of its activities and consistency of its support have not always been very efficiently carried out. In view of the fact that the Government allocates a large sum of money for the various types of adult education, the Committee urges that a more effective machinery be established for planning, development and co-ordination. This is particularly so on the question of control of teachers which should be the responsibility of the Ministry of Education. Many of the recommendations made in this report will require teachers to make greater contributions to rural development through adult education.

## 11.2 Goals and Programmes of Action

### 11.2.1 Lifelong Continuing Education

The main point that the Committee would like to reiterate is that the concept and practice of lifelong continuing education should apply to all Kenyans. It should not be confined to those who wish to advance their formal education which they were unable to acquire earlier in their educational careers. In particular, the Committee would like to see the concept and practice being vigorously applied to those senior people who are entrusted with complex responsibilities whose changing natures require continually new and more effective approaches.

*Recommendation* 204

*To recognize, promote, and develop the concept and co-ordinate the processes of lifelong continuing education and training as a national goal for all citizens.*

### 11.2.2 Literacy

In a developing country like Kenya, the three problems of disease, ignorance and poverty continue to be real setbacks in social and economic development. Literacy is one of the basic requirements which would enable the majority of Kenyans to break out of this vicious circle on a mass scale. Only when they have acquired a reasonable degree of literacy will they be able to benefit from the concept and practice of the lifelong education proposed here and to enhance their productive capacities. The Committee would, therefore, like to see literacy being treated as an important social and economic requirement for all Kenyans.

*Recommendation* 205

*To aim at achieving universal literacy in the country.*

*Recommendation* 206

*To treat literacy as a serious national objective based on strong political directive along with massive mobilization of people and funds through the Board of Adult Education.*

*Recommendation* 207

*To teach literacy in the vernacular in view of the difficulties experienced in attempts to teach literacy along with a new language like Kiswahili.*

### 11.2.3 Small-scale Business Education

One of the means for self-employment for the majority of people in the country is small-scale business. But as noted elsewhere in this report, business education, especially for small-scale business, has been largely neglected. The Committee would like to see the programmes for continuing and adult education re-organized in order to provide courses for small-scale businessmen. The Committee has recommended elsewhere in this report that the extra-mural study programme of the University should also be overhauled so as to serve more people in rural areas. This should include small-scale business education.

*Recommendation* 208

*To restructure and re-organize the training and extension function of a strengthened Board of Adult Education to enable it to provide and mount courses on various small-scale business skills required in rural and urban areas on a continuing basis and allocate adequate funds for this programme.*

### 11.2.4 Learning Conditions in Rural Areas

Many of the recommendations made in this report have stressed the need to facilitate the development of rural areas. The proposed development of lifelong education and mass literacy programmes cannot occur unless there is mobilization of teachers, equipment and other physical facilities to create

learning conditions in the rural areas. This will not necessarily mean recruiting new teachers and obtaining new equipment and other physical facilities. To start with, it can be achieved through better and co-ordinated utilization of existing teachers and other people as well as schools and other facilities. For example, chiefs play an important role in rural development. Because of this they must themselves be continually enlightened so that they can facilitate the creation of learning conditions for those under their care. School buildings tend to remain idle when they are not being used for schooling and they should be used for adult education.

*Recommendation* 209

*To create learning conditions in rural areas conducive to accelerated development of the rural areas.*

*Recommendation* 210

*To involve the schools and other learning institutions in the education of the community.*

### 11.2.5 Co-ordination of Adult Education

The multiplicity of continuing and adult education activities in the country as a whole will require a more effective national machinery for planning and co-ordination. In the meantime the Board of Adult Education should be strengthened to co-ordinate and facilitate adult education activities.

*Recommendation* 211

*To establish a stronger, co-ordinating and consultative machinery within the field of adult education involving a more comprehensively based function of the existing Board of Adult Education.*

### 11.2.6 Extension Training and Service

One of the ways in which the great majority of rural populations are and will continue to be reached is the extension service. More and more people in rural areas will need to be reached by this service. The following recommendations highlight the kind of training the Committee would like to see being developed to enhance the effectiveness of the service.

*Recommendation* 212

*To develop a two-tier system of extension training in which the first tier of technical training in given areas is supplemented by training in extension skills such as communications, programme planning and human relations.*

*Recommendation* 213

*To orientate the two-tier training towards problem solving carried out by teams whose preparation is based on the need to solve the problems on an integrated manner.*

*Recommendation* 214

*To carry out the two-tier training on an in-service basis using Farmer Training Centres and District Development Centres as the principal locations.*

### 11.2.7 Workers' Education

As part of the development of the concept and practice of lifelong continuing education the Committee proposes that the Government should set up a more effective machinery to plan and co-ordinate workers' education in the country.

*Recommendation* 215

*To set up a more effective Government machinery for workers' education in view of the relatively small proportion of trade union funds devoted to workers' education and past dependence on foreign union funds.*

# CHAPTER 12—TEACHERS

## 12.1 Evaluation

Teachers who are being trained today will still be teaching by the year 2000. Many of the recommendations made in this report include goals and programmes of action whose full impact will not be realized until towards the end of the century. It is, therefore, vital that the role of the teaching profession is seen today in the light of the estimated long-term needs of education.

In the recommendations made by the Committee in this report, the qualitative and quantitative attributes of the teaching profession constitutes a crucial condition for their success. In particular, the proposed order of priorities of firstly, achieving universal primary or basic education, secondly, improving the quality of education and thirdly, undertaking the various desirable educational expansions, cannot be achieved unless teachers are trained, recruited and maintained in appropriate numbers and quality.

The Committee notes that shortages do exist that need to be made up with properly trained Kenyan teachers. There are severe shortages in mathematics, sciences, languages and cultural subjects. There is a large force of untrained primary teachers who must either be trained or phased out and replaced with trained teachers. The annual requirements for the newly trained teachers for the proposed basic education system will be in the region of 10,000 a year to cater for expansion and replacements. Integrated approaches to rural development will increasingly demand changes in the role of teachers from one of classroom instructor to a more generally adaptable type of educator. This will require a new and co-ordinated approach to teacher education.

The Committee has come to the conclusion that no matter how education is viewed, the role and quality of teachers must be given the most critical consideration if the problems related to education and training are to diminish rather than increase with time. The various aspects of this question are reviewed in the following sections and appropriate recommendations made.

## 12.2 Goals and Programmes of Action

### 12.2.1 Teaching Profession

To be able to maintain high morale and the best qualities in the teaching profession it is essential to detect and reward good work and remove poor and detrimental work. In particular, lack of discipline has been identified as a wide-spread problem among the teachers which in turn affects school discipline. It follows that the importance of discipline should be emphasized at

all levels of teacher education. It was made evident to the Committee that the capacity for assessing the performance of teachers continually for this purpose has not been fully developed in the managerial system of education. The Committee was also made to understand that there was no scheme of service for educational personnel to show all the career channels that they could go into within the education system. Complaints have also been made about the unstabilizing effects of frequent transfers of teachers. The Committee would also like to emphasize that the deployment of teachers must be carried out so as to reflect the national character of the teaching force.

The Committee has made the following recommendations with a view to getting these problems sorted out as a matter of urgency.

*Recommendation* 216

*To improve the quality of teachers and teacher education.*

*Recommendation* 217

*To assess the performance of teachers continually for use in awarding fair promotions and imposing appropriate sanctions.*

*Strengthen the inspectorate both qualitatively and quantitatively.*

*Establish inspection teams composed of representatives from all parts of the country.*

*Recommendation* 218

*To establish a scheme of service for educational personnel to define career patterns for all grades.*

*Recommendation* 219

*To give increasing weight to mathematics, science, language, art, music, home science and agricultural sciences in the recruitment of students for training as teachers.*

*Recommendation* 220

*To make all newly-recruited non-citizen teachers attend local orientation courses.*

*Recommendation* 221

*To offer promotion opportunities to teachers within the classroom, which should be equivalent to promotion opportunities of senior administrative grades within the teaching service.*

*Recommendation* 222

*To improve the stability of educational institutions by retaining teachers for reasonable periods of time.*

### 12.2.2 Pre-primary Teachers

Pre-primary education exists in various parts of the country and municipalities and is carried out at widely varying standards. The proper

preparation of a child's foundation for primary education and social development can make all the difference to the child's future. If it is properly planned, co-ordinated, programmed and standardized it can be of very real educational value. There has been a tendency, however, for pre-primary centres to be viewed increasingly as places for child care for working parents who may often not be interested in what the children do at the pre-primary centres. It is the view of the Committee that the Government should provide guidance to the public as a whole and to the private agencies and local authorities regarding the type of pre-primary education that is of importance in the country.

Pre-primary teachers have been trained by the Kenya Institute of Education and the Ministry of Education with assistance from the Bernard van Leer Foundation of The Hague. It must be noted, however, that there are still too few of them to meet the needs of the country as a whole. The trained ones have been absorbed largely by the City Council of Nairobi. There is also the dilemma that even if there were enough teachers, the rural areas that need them most cannot afford to pay such trained teachers.

Furthermore the majority of pre-primary teachers in the rural areas are recruited from CPE failures and primary school dropouts. Secondly, there has been no clearly defined and standardized programme of teaching for pre-primary schools. Thirdly, the schools are not adequately supervised because of shortage of personnel. Fourthly, the facilities provided by many County Councils are not adequate.

It is the view of the Committee that the Government should do something about the large numbers of pre-primary children in the country who need to enhance the adequacy of their preparation for education and social development. In particular, even if the Government cannot take over the responsibility of paying trained pre-primary teachers, there is urgent need to provide more clear and effective guidance on the matter, especially for rural populations. The following recommendations are made to try and meet this need.

*Recommendation* 223

*To provide adequate facilities for the training of pre-primary schools teachers under a sponsorship system.*

*Recommendation* 224

*To require a minimum educational qualification of EACE for pre-service pre-primary school teacher training although during the first few years of the programme this qualification may not be insisted on.*

*Recommendation* 225

*To design the curriculum for the unified pre-school teachers' training programme.*

*Recommendation* 226

*To offer short in-service courses for serving but untrained pre-primary teachers in addition to the pre-service course.*

### 12.2.3 Primary Teachers

The qualitative attributes of the teacher are of paramount importance in determining the quality of education on which the intellectual development of the child is based. The primary teacher force in the country has some 35,000 untrained teachers the majority of whom were recruited three years ago directly from school-leavers to meet the expanded needs of free Primary 1 to 4 introduced in 1974. These teachers are not trained in teaching methodology. Many of them have also been found to be lacking in content. Improvement of the quality of education is regarded by the Committee as one of the important priorities before any major quantitative expansions are considered. No such qualitative improvement of education can occur without a major improvement in the quality of teachers and teacher training. The following recommendations are made to serve this objective.

*Recommendation* 227

*To investigate the quality of mathematics teaching at primary teachers' colleges, especially in the colleges where results in the final qualifying examination are poor.*

*Recommendation* 228

*To require an EACE pass or the future Secondary School Leaving Certificate in mathematics as a minimum requirement for recruitment to primary teacher training.*

*Recommendation* 229

*To hold in-service courses for all teachers in the relevant class before each Revised Kenya Primary Mathematics book is released ensuring that the courses are long enough for teachers to have time to work many of the problems so as to gain confidence in their ability to teach the materials to the pupils.*

*Recommendation* 230

*To expand the training of teachers with substantial academic and professional content for the pre-vocational subjects taught in Primary 4 to 7 and Junior Secondary 1 and 2, based respectively on a two-year or three-year training programme for which the necessary manpower and financial requirements should be worked out and provided for.*

*Recommendation* 231

*To categorize the primary teacher qualification into four grades according to academic and professional performance during training in the teachers colleges and use these for determining entry points and maxima for each grade in a unified salary scale for all primary school teachers.*

*Recommendation* 232

*To promote primary teachers on merit as well as on academic grounds.*

*If a teacher passes an academic examination in the relevant subjects the teacher should apply for inspection in order to verify the quality of his work.*

### 12.2.4 Untrained Teachers

It is likely that the education system will continue to depend on untrained teachers for a number of years until they are replaced with trained ones. The Committee was, however, made to understand that it will take a long time to replace the present force of 35,000 untrained teachers on a two-year training programme. Furthermore about 12,000 of these teachers have only primary or junior secondary education. The Committee would, therefore, like to see a major expansion in teacher training programmes without lowering the quality of teachers. In the meantime the Committee has suggested that consideration be given to the possibility of a one-year teacher training programme. At the same time the recruitment of all teachers, including the untrained ones, should continue to be carried out by the Teachers Service Commission.

*Recommendation* 233

*To continue recruiting all untrained teachers through the Teachers Service Commission.*

*Base the selection on a district quota system.*

*Use the computer printout lists of all EACE leavers who have applied for untrained teaching through the Careers Form.*

*Recommendation* 234

*To reduce and if possible eliminate the present large numbers of untrained teachers.*

*Give consideration to admission of EACE school-leavers for one-year training.*

*If the one-year training is found to be feasible it should concentrate on providing professional teacher training and teaching practice for which the trainees should spend eleven months in training and only one month on vacation.*

*Recommendation* 235

*To expand primary teacher education facilities and programmes without lowering the quality of teachers.*

### 12.2.5 Secondary Teachers

The rapid expansion of secondary education during the first decade of independence has been catered for by expanded teacher training at the Kenya Science Teachers College, Kenyatta University College and University

of Nairobi. The pattern of secondary education catered for has been the four-year ordinary level and the two-year advanced level, the latter being tied purely to university entry.

The implementation of a nine-year basic education system and a four-year secondary education will require changes and improvements in secondary teacher education. This will be particularly so in relation to the diversification likely to be introduced to secondary education. This will require an intensification of recruitment of graduate teachers. The Committee was made to understand, however, that the Bachelor of Education graduate teachers were experiencing problems in secondary schools due largely to lack of adequate subject content. Other reasons for concern regarding the Bachelor of Education programme was the lack of interest in teaching among many of the candidates admitted to study for the degree at the University. One of the reasons for this had been that a large number of the candidates were directed to the B. Ed. programme after failing to get admitted to the subjects of their own choices. As a result of this many of the candidates going into the Bachelor of Education programme were, therefore, also of relatively low academic quality. The Committee was made to understand that there had been considerable drop in the performance of many Bachelor of Education teachers in classroom teaching. The Committee would, therefore, like to see adequate consultations between the Ministry of Education and the University of Nairobi aimed at rectifying the situation.

*Recommendation* 236

*To recruit Senior Secondary School teachers mainly from university graduates.*

*Recommendation* 237

*To expand the Post-graduate Diploma in Education to last at least four terms and to diversify it to include the training of various educational specialists.*

*Recommendation* 238

*To review the Bachelor of Education programmes immediately.*

*Increase the content of education and real classroom teaching practice.*

*Introduce an internship year of supervised teaching following the three years of full-time study.*

*Introduce a* 3:2:2 *course structure alongside the present* 3:3:3 *programme.*

*Base the size of each programme on the needs of the schools.*

*Recommendation* 239

*To diversify the Bachelor of Education programme to include teacher education, special education and other education specializations.*

*Recommendation* 240

*To develop more cross-faculty subject combinations within the Bachelor of Education programme.*

*Recommendation* 241

*To improve the numbers and quality of mathematics and science teachers.*

*Provide more in-service courses.*

*Increase subject inspectors in mathematics and science.*

*Facilitate the establishment of a more active professional body for science teachers.*

*Recommendation* 242

*To increase the numbers of graduate teachers of mathematics, physics and chemistry by offering those enrolled on the Kenyatta University College non-graduate Diploma in Education course remedial training which would improve their opportunity to qualify for transfer after one year to the B. Ed. (Science) programme.*

*Modify the Diploma course to make this possible.*

*Restrict the remedial training to those who have one good EAACE Principal Pass.*

*Recommendation* 243

*To provide for the training of sufficient teachers of agricultural sciences in anticipation of the subject becoming a prominent feature in the revised secondary school curriculum.*

*Recommendation* 244

*To provide retraining programmes for serving teachers in order to facilitate the implementation of the new secondary school curriculum.*

*Recommendation* 245

*To offer training to untrained secondary school teachers who have the necessary academic qualifications.*

### 12.2.6 Secondary Teacher Trainers

The problem of properly trained and experienced trainers for secondary teachers remains a major one in the country. Yet no expansion or acceleration of teacher training programmes can be achieved without the teacher trainers. The Committee proposes that the University be requested to develop a programme for secondary teacher trainers at a Master or Doctorate level.

*Recommendation* 246

*To establish a Master of Education and Doctor of Philosophy course at the university for secondary teacher trainers.*

### 12.2.7 Handicapped Teachers

Teachers with various forms of handicaps are currently appointed by the Teachers Service Commission. The Committee suggests that this practice should be continued. Furthermore, the teachers should be posted to any suitable schools rather than necessarily to special schools.

*Recommendation* 247

*To continue appointing handicapped teachers by the Teachers Service Commission to any suitable school.*

### 12.2.8 Teachers of Handicapped Children

Teaching handicapped children is a much more demanding undertaking than teaching ordinary children. It requires much more patience and an understanding that a handicapped child will inevitably take much longer to learn anything compared with an ordinary child. The Committee, therefore, notes with satisfaction the existence of a special allowance given to teachers serving handicapped children. The attention of the Committee was drawn to the practice where teachers stop teaching handicapped children and transfer to ordinary schools with their special allowances. The Committee would like to emphasize the importance of providing this allowance strictly only for the period during which the teacher is serving handicapped children. Furthermore the Committee proposes an improvement of promotional opportunities within the teaching scales for teachers serving handicapped children. There is also need to accelerate and co-ordinate teacher training programmes for special education.

*Recommendation* 248

*To continue awarding a special allowance for teachers while teaching handicapped children and to remove it if the teacher transfers to a normal school.*

*Recommendation* 249

*To improve promotional opportunities for special education teachers within the teaching scales.*

*Recommendation* 250

*To co-ordinate the existing teacher training programmes for special education by bringing them under one of the existing colleges and expanding the training facilities to those areas of special education which are not catered for at the moment.*

*Course to be of one additional year's duration for serving qualified teachers and should lead to a special education qualification.*

*The trainees admitted should have EACE or the future Kenya Senior Secondary Examination and should have two years' teaching experience in normal schools.*

### 12.2.9 Technical Teachers

The Ministry of Education has just started the Kenya Technical Teachers College for training teachers of technical subjects, primarily in secondary schools. The candidates are recruited from secondary school-leavers. The Committee has viewed this programme with concern because of the likelihood of production of laboratory/workshop oriented academic person rather than a teacher who is first and foremost a practitioner of his profession. The Committee was made to understand that the reason for not recruiting teacher trainees from the best trained and experienced technologists was that they were all earning large salaries and could not be attracted into teacher education.

The Committee would like to emphasize in no uncertain terms that investment in a good teacher, especially a professional teacher, is quickly returned manyfold through the effectiveness of the persons he teaches over the years. It is in fact a relatively small investment compared with the multiplying effect it has in terms of dozens and eventually hundreds of properly trained professionals that he produces. Any other form of investment is likely to cost the country dearly in the long run due also to the large numbers of products who will have been taught by teachers who have no professional practice background. In no other profession is expediency the guiding principle when it comes to selection for training.

The Committee would like to draw the attention of the Ministry of Education to the training programme for teachers and administrators of nursing. It is a two-year diploma course of the University of Nairobi. The candidates must have a good academic background, successful and complete nurse training and about two years of successful nursing. They are maintained on their full salaries by the Ministry of Health and other sponsors while in training. It would have been more expedient to recruit the trainees from school-leavers but that would have been the end of nursing as a profession and the beginning of academic nursing.

The Committee, therefore, view the current technical teacher training programme as one which must of necessity be phased out and a fully professional one introduced as a matter of urgency. The Kenya Polytechnic has in fact considerable experience of relevant training in this area and should form the basis for an expanded programme. It is in attracting the best Kenyan candidates into technical teacher training that foreign aid may be necessary. The Committee proposes strongly that these steps be taken with the next intake of teacher trainees and that the present stop-gap recruits be made to undergo full profession assessment and real industrial experience before being exposed to students to teach.

The Committee has proposed elsewhere in this report that the planned expansion of technical secondary education be halted until it has been

thoroughly reviewed. This implies that even the expansion of technical teacher training should also be reviewed.

*Recommendation* 251

*To recruit the best technical teachers in terms of academic and professional competence from people who have completed a normal apprenticeship, suitable training, educational qualification and work experience by offering adequate salary scales and prospects.*

*Recommendation* 252

*To recruit school-leavers and train them as future technical teachers as a stop-gap measure whose training programme must incorporate skill training and work experience which is at least the equal of those who are being trained by industry in the kind of occupational skills which the students will be expected to teach.*

### 12.2.10 University Teachers

Approximately 10 per cent of the student population at the University of Nairobi consists of post-graduates in the various faculties and departments. In general, the tendency has been to leave post-graduate training to the initiative of the student and his teachers with little or no guidance on the national needs for which specialists are required. As a result, not enough resources have been provided to ensure that all areas of national need are adequately catered for. Yet post-graduate training is the only way of providing the country with highly specialized personnel. As far as the University is concerned there is also the added problem of not always being able to offer competitive salaries to attract the best candidates back into university teaching. It is the view of the Committee, therefore, that there is urgent need to rationalize and co-ordinate post-graduate training in relation to national requirement for specialized personnel, especially university teachers.

*Recommendation* 253

*To rationalize post-graduate programmes of the University according to national needs with special reference to requirements for university teachers and other specialized manpower of the country.*

### 12.2.11 Training and Serving in Guidance and Counselling

Guidance and counselling of pupils and students when properly done, probably play as important a role in enhancing the person's future adaptability as does academic teaching. Most of what could be called guidance and counselling today is confined strictly to careers guidance. Furthermore, it is dependent on voluntary effort by some teachers who feel motivated to do it. The Committee is of the opinion that all teachers should be trained in guidance and counselling work and that they should be required to do it as one of their normal duties.

*Recommendation* 254

*To require all teacher trainees to take a compulsory course on guidance and counselling as part of their training.*

*Recommendation* 255

*To provide in-service courses on guidance and counselling for practising teachers.*

*Recommendation* 256

*To require teachers to participate in guidance and counselling as one of their normal duties.*

*Base this on a programme agreed upon co-operatively by the staff.*

*Provide adequate time.*

*Integrate with such other topics as careers, ethics, human relations, family life and sex education.*

*Involve parents and other competent members of the community.*

TABLE 12.1—PRIMARY SCHOOL TEACHERS, 1961 TO 1975

| | Qualified Teachers | Unqualified Teachers | Total |
|---|---|---|---|
| 1961 .. .. .. .. | 15,600 | 4,600 (23%) | 20,200 |
| 1962 .. .. .. .. | 17,200 | 5,500 (24%) | 22,700 |
| 1963 .. .. .. .. | 17,200 | 5,600 (24%) | 22,800 |
| 1964 .. .. .. .. | 19,200 | 8,600 (31%) | 27,800 |
| 1965 .. .. .. .. | 20,300 | 10,700 (35%) | 31,000 |
| 1966 .. .. .. .. | 23,300 | 10,200 (30%) | 33,500 |
| 1967 .. .. .. .. | 25,100 | 10,600 (30%) | 35,700 |
| 1968 .. .. .. .. | 27,500 | 10,400 (28%) | 37,900 |
| 1969 .. .. .. .. | 30,000 | 8,300 (22%) | 38,300 |
| 1970 .. .. .. .. | 32,900 | 8,600 (21%) | 41,500 |
| 1971 .. .. .. .. | 37,600 | 11,800 (24%) | 49,400 |
| 1972 .. .. .. .. | 41,600 | 11,900 (22%) | 53,500 |
| 1973 .. .. .. .. | 43,900 | 12,600 (22%) | 56,500 |
| 1974 .. .. .. .. | 48,000 | 26,200 (35%) | 74,200 |
| 1975 .. .. .. .. | 54,800 | 31,300 (36%) | 86,100 |

**Sources:** Ministry of Education Annual Report and Teachers Service Commission statistics.

NOTE:— For most years numbers of teachers are calculated for the month of March. Some newly qualified teachers enter the schools in mid-year.

TABLE 12.2—QUALIFICATIONS OF PRIMARY SCHOOL TEACHERS, 1964 TO 1975
(Qualified Teachers Only)

| | Graduates | S1 | P1 | P2 | P3 | P4 | Other | Total |
|---|---|---|---|---|---|---|---|---|
| 1964 .. | 80 | 290 | 1,560 (8%) | 2,540 (13%) | 11,780 (61%) | 2,670 (14%) | 250 | 19,180 |
| 1965 .. | 90 | 280 | 1,480 (7%) | 2,900 (14%) | 12,400 (62%) | 2,540 (13%) | 420 | 20,110 |
| 1966 .. | 90 | 290 | 1,620 (7%) | 3,270 (14%) | 14,760 (63%) | 2,880 (12%) | 390 | 23,310 |
| 1967 .. | 80 | 310 | 1,680 (7%) | 3,800 (15%) | 16,030 (64%) | 2,820 (11%) | 330 | 25,050 |
| 1968 .. | 80 | 310 | 1,800 (7%) | 5,320 (19%) | 16,990 (62%) | 2,700 (10%) | 290 | 27,490 |
| 1969 .. | 70 | 330 | 2,210 (7%) | 6,640 (22%) | 17,860 (60%) | 2,720 (9%) | 180 | 30,000 |
| 1970 .. | 60 | 290 | 2,990 (9%) | 8,480 (26%) | 18,420 (56%) | 2,460 (7%) | 240 | 32,930 |
| 1971 .. | 70 | 340 | 4,060 (11%) | 10,230 (27%) | 20,160 (54%) | 2,420 (6%) | 340 | 37,620 |
| 1972 .. | 30 | 330 | 5,480 (13%) | 12,740 (31%) | 20,500 (49%) | 2,320 (6%) | 200 | 41,600 |
| 1973 .. | 50 | 510 | 6,290 (14%) | 13,820 (31%) | 20,710 (47%) | 2,390 (5%) | 160 | 43,930 |
| 1974 .. | 40 | 610 | 7,520 (16%) | 15,070 (47%) | 22,600 (47%) | 2,090 (4%) | 30 | 47,960 |
| 1975 .. | 90 | 1,220 | 13,050 (24%) | 20,390 (37%) | 17,900 (33%) | 2,010 (4%) | 170 | 54,820 |

**Source:** Ministry of Education Annual Reports.

NOTE:— For most years numbers of teachers are calculated for the month of March. Some newly qualified teachers enter the schools in mid-year.

TABLE 12.3—PRIMARY SCHOOLS: PUPILS, TEACHERS AND CLASSES, 1961 TO 1975

| | Pupils | Teachers | Classes | Pupil: Teacher Ratio | Average Class Size |
|---|---|---|---|---|---|
| 1961 .. .. | 870,000 | 20,200 | — | 43 | — |
| 1962 .. .. | 936,000 | 22,700 | — | 41 | — |
| 1963 .. .. | 892,000 | 22,800 | — | 39 | — |
| 1964 .. .. | 1,015,000 | 27,800 | — | 37 | — |
| 1965 .. .. | 1,042,000 | 31,000 | — | 34 | — |
| 1966 .. .. | 1,043,000 | 33,500 | 34,700 | 31 | 30 |
| 1967 .. .. | 1,133,000 | 35,700 | 36,800 | 32 | 31 |
| 1968 .. .. | 1,210,000 | 37,900 | 38,500 | 32 | 31 |
| 1969 .. .. | 1,282,000 | 38,300 | 39,900 | 33 | 32 |
| 1970 .. .. | 1,428,000 | 41,500 | 42,200 | 34 | 34 |
| 1971 .. .. | 1,525,000 | 49,400 | 45,500 | 31 | 34 |
| 1972 .. .. | 1,676,000 | 53,500 | 50,000 | 31 | 34 |
| 1973 .. .. | 1,816,000 | 56,500 | 52,800 | 32 | 34 |
| 1974 .. .. | 2,734,000 | 74,200 | 73,700 | 37 | 37 |
| 1975 .. .. | 2,881,000 | 86,100 | 76,800 | 33 | 38 |

**Sources:** Ministry of Education Annual Reports and Teachers Service Commission statistics.

NOTE:— Statistics are for the month of March each year.

TABLE 12.4—SECONDARY (AIDED) SCHOOLS: QUALIFICATIONS OF TEACHERS, 1961 TO 1975

| | Qualified | | Unqualified | Total |
|---|---|---|---|---|
| | Graduates | Non-Graduates | | |
| 1961 .. .. .. | 840 | 300 | 50 | 1,190 |
| 1962 .. .. .. | 860 | 240 | 40 | 1,140 |
| 1963 .. .. .. | 910 | 380 | 90 | 1,380 |
| 1964 .. .. .. | 1,020 | 430 | 120 | 1,570 |
| 1965 .. .. .. | 1,080 | 590 | 120 | 1,790 |
| 1966 .. .. .. | 1,260 | 650 | 130 | 2,040 |
| 1967 .. .. .. | 1,540 | 620 | 160 | 2,320 |
| 1968 .. .. .. | 1,780 | 770 | 170 | 2,720 |
| 1969 .. .. .. | 1,870 | 1,040 | 150 | 3,060 |
| 1970 .. .. .. | 1,890 | 1,430 | 210 | 3,530 |
| 1971 .. .. .. | 1,790 | 1,650 | 260 | 3,700 |
| 1972 .. .. .. | 1,920 | 2,060 | 140 | 4,120 |
| 1973 .. .. .. | 1,870 | 2,260 | 140 | 4,270 |
| 1974 .. .. .. | 2,070 | 2,240 | 190 | 4,500 |
| 1975 .. .. .. | 1,920 | 2,150 | 410 | 4,480 |

**Source:** Ministry of Education Annual Reports.

NOTE:— Graduates who have not received professional training are recorded above as qualified teachers.

TABLE 12.5—SECONDARY (AIDED) SCHOOLS: CITIZENSHIP OF TEACHERS, 1966 TO 1975

| | Citizens | Non-Citizens | Total |
|---|---|---|---|
| 1966 .. .. .. .. | 560 | 1,480 (73%) | 2,040 |
| 1967 .. .. .. .. | 690 | 1,630 (70%) | 2,320 |
| 1968 .. .. .. .. | 860 | 1,860 (68%) | 2,720 |
| 1969 .. .. .. .. | 1,140 | 1,920 (63%) | 3,060 |
| 1970 .. .. .. .. | 1,690 | 1,840 (52%) | 3,530 |
| 1971 .. .. .. .. | 2,100 | 1,600 (43%) | 3,700 |
| 1972 .. .. .. .. | 2,430 | 1,690 (41%) | 4,120 |
| 1973 .. .. .. .. | 2,820 | 1,450 (34%) | 4,270 |
| 1974 .. .. .. .. | 3,370 | 1,130 (25%) | 4,500 |
| 1975 .. .. .. .. | 3,570 | 910 (20%) | 4,480 |

**Source:** Ministry of Education Annual Reports.

TABLE 12.6—SECONDARY (UNAIDED) SCHOOLS: QUALIFICATIONS OF TEACHERS, 1961 TO 1975

| | Qualified | | | |
|---|---|---|---|---|
| | Graduates | Non-Graduates | Unqualified | Total |
| 1961 .. .. .. | 90 | 50 | 10 (7%) | 150 |
| 1962 .. .. .. | 200 | 60 | 60 (19%) | 320 |
| 1963 .. .. .. | 170 | 40 | 20 (9%) | ?230 |
| 1964 .. .. .. | 240 | 90 | 100 (23%) | 430 |
| 1965 .. .. .. | 290 | 210 | 210 (30%) | 710 |
| 1966 .. .. .. | 310 | 310 | 340 (35%) | 960 |
| 1967 .. .. .. | 430 | 450 | 850 (49%) | 1,730 |
| 1968 .. .. .. | 480 | 440 | 1,010 (52%) | 1,930 |
| 1969 .. .. .. | 610 | 510 | 1,080 (49%) | 2,200 |
| 1970 .. .. .. | 640 | 500 | 1,210 (51%) | 2,350 |
| 1971 .. .. .. | 730 | 510 | 1,430 (54%) | 2,670 |
| 1972 .. .. .. | 760 | 490 | 1,740 (58%) | 2,990 |
| 1973 .. .. .. | 840 | 510 | 1,770 (57%) | 3,120 |
| 1974 .. .. .. | 810 | 540 | 2,060 (60%) | 3,410 |
| 1975 .. .. .. | 770 | 510 | 2,290 (64%) | 3,570 |

**Source:** Ministry of Education Annual Reports.

NOTE:— Graduates who have not received professional training are recorded above as qualified teachers.

TABLE 12.7—SECONDARY (UNAIDED) SCHOOLS: CITIZENSHIP OF TEACHERS, 1966 TO 1975

| | Citizens | Non-Citizens | Total |
|---|---|---|---|
| 1966 .. .. .. .. | 480 | 480 (50%) | 960 |
| 1967 .. .. .. .. | 1,040 | 690 (40%) | 1,730 |
| 1968 .. .. .. .. | 1,190 | 740 (38%) | 1,930 |
| 1969 .. .. .. .. | 1,320 | 880 (40%) | 2,200 |
| 1970 .. .. .. .. | 1,430 | 920 (39%) | 2,350 |
| 1971 .. .. .. .. | 1,640 | 1,030 (39%) | 2,670 |
| 1972 .. .. .. .. | 2,020 | 970 (32%) | 2,990 |
| 1973 .. .. .. .. | 2,040 | 1,080 (35%) | 3,120 |
| 1974 .. .. .. .. | 2,530 | 880 (26%) | 3,410 |
| 1975 .. .. .. .. | 2,730 | 840 (24%) | 3,570 |

**Source:** Ministry of Education Annual Reports.

TABLE 12.8—SECONDARY (AIDED) SCHOOLS—PUPIL:TEACHER RATIOS, 1961 TO 1975

| | Pupils | Teachers | Pupil: Teacher Ratio |
|---|---|---|---|
| 1961 .. .. | 18,400 | 1,190 | 15 |
| 1962 .. .. | 20,700 | 1,140 | 18 |
| 1963 .. .. | 23,200 | 1,380 | 17 |
| 1964 .. .. | 27,500 | 1,570 | 18 |
| 1965 .. .. | 33,600 | 1,790 | 19 |
| 1966 .. .. | 41,200 | 2,040 | 20 |
| 1967 .. .. | 48,400 | 2,320 | 21 |
| 1968 .. .. | 56,600 | 2,720 | 21 |
| 1969 .. .. | 65,600 | 3,060 | 21 |
| 1970 .. .. | 74,600 | 3,530 | 21 |
| 1971 .. .. | 80,500 | 3,700 | 22 |
| 1972 .. .. | 91,500 | 4,120 | 22 |
| 1973 .. .. | 99,400 | 4,270 | 23 |
| 1974 .. .. | 102,200 | 4,500 | 23 |
| 1975 .. .. | 106,000 | 4,480 | 24 |

**Source:** Ministry of Education Annual Reports.

TABLE 12.9—SECONDARY (UNAIDED) SCHOOLS—PUPIL:TEACHER RATIOS, 1961 TO 1975

| | Pupils | Teachers | Pupil: Teacher Ratio |
|---|---|---|---|
| 1961 .. .. | 3,700 | 150 | 25 |
| 1962 .. .. | 5,900 | 320 | 18 |
| 1963 .. .. | 7,000 | ? 230 | ? 30 |
| 1964 .. .. | 8,400 | 430 | 20 |
| 1965 .. .. | 14,400 | 710 | 20 |
| 1966 .. .. | 22,000 | 960 | 23 |
| 1967 .. .. | 40,400 | 1,730 | 23 |
| 1968 .. .. | 44,800 | 1,930 | 23 |
| 1969 .. .. | 49,600 | 2,200 | 23 |
| 1970 .. .. | 52,300 | 2,350 | 22 |
| 1971 .. .. | 59,700 | 2,670 | 22 |
| 1972 .. .. | 70,400 | 2,990 | 24 |
| 1973 .. .. | 75,300 | 3,120 | 24 |
| 1974 .. .. | 93,600 | 3,410 | 27 |
| 1975 .. .. | 111,100 | 3,570 | 31 |

**Source:** Ministry of Education Annual Reports.

TABLE 12.10—ENROLMENTS ON TEACHER EDUCATION COURSES, 1961 TO 1975

| | Primary Teachers Colleges | Secondary Teachers, Non-Graduates | Secondary Teachers, Graduates |
|---|---|---|---|
| 1961 .. .. .. .. | 4,210 | — | n/a |
| 1962 .. .. .. .. | 4,250 | — | n/a |
| 1963 .. .. .. .. | 4,580 | 30 | n/a |
| 1964 .. .. .. .. | 4,680 | 140 | n/a |
| 1965 .. .. .. .. | 4,850 | 270 | n/a |
| 1966 .. .. .. .. | 5,060 | 410 | n/a |
| 1967 .. .. .. .. | 5,250 | 640 | n/a |
| 1968 .. .. .. .. | 5,750 | 880 | n/a |
| 1969 .. .. .. .. | 6,130 | 1,060 | n/a |
| 1970 .. .. .. .. | 6,750 | 1,270 | n/a |
| 1971 .. .. .. .. | 7,240 | 1,380 | n/a |
| 1972 .. .. .. .. | 7,480 | 1,200 | n/a |
| 1973 .. .. .. .. | 8,170 | 880 | n/a |
| 1974 .. .. .. .. | 8,480 | 970 | 1,860 |
| 1975 .. .. .. .. | 8,670 | 840 | 1,830 |

**Source:** Ministry of Education Annual Reports.

NOTE:— Until 1972/73 most intending graduate teachers enrolled on B.A. or B.Sc. with Education courses. They were not recorded separately from othe B.A. or B.Sc. students. Hence data for the column headed "Secondary Teachers, Graduates" is not available before 1974/75.

## CHAPTER 13—EDUCATIONAL MATERIALS AND EQUIPMENT

### 13.1 Evaluation

Books and other educational materials are the basic tools for educational development. They must therefore be available to the learner in adequate quality and quantities. They must also be available at the time they are required and at a cost the learner can afford. Book publishing provides the service for production of books. It takes from one year upwards to get a book published. It is therefore necessary to anticipate the book needs of the public well in advance to avoid frustration and loss of interest due to long delays.

The Kenya Institute of Education was established to produce book manuscripts for school needs. The Jomo Kenyatta Foundation was established primarily to make money for giving scholarships to needy children. To meet this objective the Foundation was given a monopoly to publish all educational materials prepared by the Kenya Institute of Education.

The Committee noted with concern, however, that the basic educational materials produced by these two Government institutions have become more expensive than those produced commercially. There is, therefore, need to review these and other problems related to the educational needs of students. Long delays continue to be a real problem in delivering books to schools in rural areas.

The Committee was made aware of the special problems relating to the preparation and use of the Kenya Primary Mathematics and would like to use this example as an illustration of the problems that can arise because of lack of adequate planning.

A new series of modern mathematics textbooks has been used since 1964 to replace the old Highway Series. It was planned to have phased out the old texts by 1974. The new books were designed from the Entebbe Mathematics, an experimental programme which was being applied in various parts of Africa.

The Entebbe texts were to be experimentally applied in 1965 to Std. 1 in 25 schools selected in Kiambu District and Nairobi area. In each of the subsequent years the next higher class adopted the new text.

The Entebbe text was to be modified by the Kenya Institute of Education to suit local conditions and then published as "New Primary Mathematics for Kenya Schools" for use by the appropriate classes. Each text was then to be studied for a further year, published in final form and released for

general use. For each of the seven primary classes there would be a pupils' book and a teachers' guide. The preparation of the new texts was to be synchronized with in-servicing of teachers in the experimental schools, preparation of teaching aids suitable for use with the new texts, informing teacher training institutions of the new development and preparation of a series of tests based on the new texts.

Between 1965 and 1969, however, the work load increased beyond what had been anticipated. There was a shortage of personnel. As a result of these problems many of the planned activities had to be abandoned. There was a weakening of contact with the experimental schools. The in-servicing of teachers in the experimental schools was therefore reduced. The flow of information to Teacher Training Colleges about the new developments was also reduced. Staff shortages and changes during these early years led to modifications in project policies and those who were implementing them felt uneasy. Teachers in the experimental schools found the new texts difficult to teach. They also found the Entebbe Teachers' Guide difficult to follow. This was aggrevated by the reduced level of in-servicing of teachers in these schools.

In 1968 the new texts were renamed the Kenya Primary Mathematics. In 1969 it was decided not to prepare the preliminary editions any more but only the final editions. These were then introduced in all the schools in the country, starting with Book 1 in Std. 1 classes in January, 1971, and thereafter introducing the appropriate book to each higher class, so that Book 7 was due to be introduced to all Std. 7 classes in January, 1977. This in turn meant that the CPE mathematics paper would be based on the new texts for the first time at the end of 1977.

The writing deadlines for the new texts were met in the early period, even though this was achieved at the expense of adequate testing of materials. The publication deadlines were, however, not met, especially those of the Teachers' Guides. For example Book 4 Teachers' Guide was published at the end of the first term of the year in which the book was being used.

There were also problems with the distribution system even when the books were published on time. For example some districts received the Teachers' Guide at the end of the second term. Some schools are said to be without even a single copy of the Teachers' Guide or Charts for a particular class.

The other shortcoming was that the new primary syllabus in mathematics was prepared after the first books had been written.

The in-servicing of teachers was not uniformly organized. In different districts this was done by inspectors, assistant education officers, teachers advisory centre tutors, mathematics teacher leaders and college tutors.

There has also been a wide variation in the qualities of mathematics teachers from district to district. A number of those teaching mathematics may not have been trained in mathematics teaching and may therefore be unable to adopt the new techniques of teaching new mathematics. Many mathematics teachers have not been able to attend mathematics courses as they may not have been held regularly in their districts. There are also many who are not mathematics teachers but may, nevertheless, be teaching the subject to Primary 5 and 6.

All this has resulted in mathematics not being presented to the child in the way it was intended. The problem is further compounded by the complexities of book production and distribution.

### 13.1.1 Book Production

The following is a description of the processes involved in book production. It is reproduced to emphasize and clarify the time schedules that have to be adhered to so as to avoid delays, unnecessary expenditure and frustrations in schools.

#### 13.1.1.1 *The Author*

The author creates the ideas to be conveyed to the public through his book. He arranges the words, illustrations and tables so as to support his ideas appropriately. Authorship may be by individuals, groups of individuals, organizations or a government.

The work of the author must be of interest to his readers. Only then will they buy the books for their self-fulfilment and enjoyment.

The author may go to any publisher to get his work published. He signs a royalty agreement which entitles him to gain financially from the sale of his book.

Normally the author legally owns the right to publish the work. No part of it may be reproduced without his permission. This right is protected by copyright laws.

An author may, on the other hand, be commissioned to do a particular job for which he is paid. In such a case the commissioning agent owns the copyright. This practice applies particularly to governments who may commission firms or individuals to do a job in various fields and for specified objectives. The authors of newspapers and the Kenya Institute of Education belong to this category. In their cases they are on salaries and the employer owns the copyright.

When a manuscript is ready the author checks it thoroughly and then consults the publisher before submitting it. This saves time and expenditure.

13.1.1.2 *The Publisher*

The publisher makes all the decisions about financing book production. He also co-ordinates with all the partners in the book industry, namely the author, the printer and the bookseller.

On receiving the manuscript the publisher examines its contents to assess if the proposed book is needed and for what section of the public. He also assesses the material and, if necessary, decides whether it needs to be improved.

He then obtains quotations from printers, obtains raw materials, does a pricing exercise and assesses whether the book is economically viable.

He then gets the manuscript edited and marked up to enable the printer to follow. The designs are done. Artists are engaged to illustrate the rough sketches of the author.

Up to this stage the manuscript will have taken about four weeks.

The manuscript is then taken to the printer together with a layout and specification sheet. The publisher explains to the printer what his requirements are.

The first galley-proofs are ready in about eight weeks' time. They are sent by the printer to the publisher who then checks them and hands them over to the author to see if corrections have been done properly. The author returns them to the publisher who in turn hands them back to the printer to make the relevant corrections. This may take four weeks. The corrected galley-proofs may then shuttle between the printer, the publisher and the author and then back again four or five times.

The galley-proofs are then converted into page-proofs which may also shuttle three or four times before they are finally accepted for printing.

The galley- and page-proof stages may take twelve months to complete. The book is then printed and bound which may take another six months before the book is delivered to the publisher's warehouse.

13.1.1.3 *The Printer*

Upon receiving the manuscripts from the publisher the printer composes, prints and binds an edition of the particular book according to the instructions of the publisher.

The printer may have proof readers who help the author in correcting spellings, phrasing, checking historical dates, updating names of countries, places, rivers, lakes and so on. He makes suggestions regarding book sizes, type sizes, material qualities and ink.

The printing schedule has to be strictly kept to enable the publisher to meet his publication date and sales objectives. In order to keep to a printing schedule the printer must have the co-operation of the author and publisher. A book may for instance be scheduled to go on a printing machine on a particular date. If in the meantime the author starts to make changes to the book it may mean that the printer will spend about two days correcting his type setting. Since such corrections would be time consuming but non-productive, the printer would prefer to take on a new and more profitable job for the next one or two months. This would in turn mean that the first book would be put aside before being placed on the printing machine while the alternative job is being completed. Such a delay will affect all the other stages of the production work.

The printer's price quotation determines the price that the publisher is going to put on it after allowing for the author's royalties, distributors' and sellers' commissions and his own profit. The materials and labour that the printer uses are therefore a major determining factor in book prices.

#### 13.1.1.4 *The Bookseller*

The bookseller buys books directly or indirectly from the publisher at a discount and sells them to the public at a profit. He tends to order only those books which he knows are on demand to avoid having to undertake investment in advertisements and non-profitable business.

### 13.1.2 Uniforms

The uniform has the positive function of helping the community to distinguish school children and to develop a sense of equity among school children in view of the varying backgrounds of the homes they come from. In spite of these functions the parents are having to pay too heavily for them. It should be left to the Parent Teacher Associations and School Committees to work out a system that would enable children to have the desired uniforms at manageable costs. The current practices by school heads of directing parents to particular uniform makers should be reviewed.

## 13.2 Goals and Programmes of Action

### 13.2.1 Pre-primary Education

A lot of the teaching materials used in pre-primary education are very foreign in concept and in content. Children learn to sing nursery rhymes about such things as going to London to see the Queen, winter at Christmas and polar bears. Children at this stage are highly impressionable and not able to realize that such materials are foreign. They interpret the teaching to mean that these are the conditions they should be living under. The Committee therefore urges the Government to guide and accelerate the process of preparing

educationally suitable and socially and culturally relevant educational materials for this highly impressionable stage of the development of children as recommended below.

*Recommendation* 257

*To produce a curriculum and culturally-relevant materials in the Pre-primary School Section of the Kenya Institute of Education as matter of priority for use in Kenya pre-primary schools.*

### 13.2.2 Primary Education

The Committee has proposed elsewhere in this report that, in the interests of preservation of our culture, vernacular languages should be used as languages of instruction in the rural areas for Primary 1 to 3. It must be remembered, however, that one of the problems of using vernacular languages as languages for instruction is the shortage or even total lack of properly prepared educational materials. The Committee therefore urges the Government to put in hand the production of such materials.

Another major problem relates to the Kenya Primary Mathematics books which need to be extensively revised. In-service training and retraining of mathematics teachers will also need to be intensified and made more effective. The Committee therefore proposes here that these tasks be started as a matter of urgency.

*Recommendation* 258

*To prepare materials in the Kenya Institute of Education to support vernacular-medium teaching.*

*Produce a graded set of readers in each vernacular language to take the learners to full-established literacy.*

*Produce books suited to the teaching of non-language subjects in vernacular languages.*

*Take care to ensure that the idioms and usages of the specific vernacular language are used when writing the materials.*

*Recommendation* 259

*To start a programme for the revision of the Kenya Primary Mathematics, preserving the best features of the series such as activity methods, but omitting the more theoretical and abstract topics which are of little relevance to the needs of primary pupils.*

1978—*Start revision (or replacement) of Kenya Primary Mathematics books.*

*Recommendation* 260

*To instruct teachers as an immediate measure to omit the more specialized and abstract topics from the present Kenya Primary Mathematics books until the Revised Kenya Primary Mathematics books are available.*

*Recommendation* 261

*To impart basic mathematical skills in the Revised Kenya Primary Mathematics aimed at providing the secondary school entrant with a solid foundation on which to build more specialized knowledge and providing the terminal student with the skills needed to cope with the numerical problems encountered in every day life, including home management, farming, technical and craft employment and business.*

*Recommendation* 262

*To prepare an outline syllabus for the full primary education course before work is started on any of the books for the Revised Kenya Primary Mathematics course.*

*Recommendation* 263

*To provide ample staff, time and money for full testing of all draft materials in the classroom to ensure that no book is published until it has been thoroughly pre-tested.*

*Recommendation* 264

*To produce primary school science kits, similar to those being produced at the Kenya Science Teachers College for secondary schools' chemistry and physics, with control over the quality of design, workmanship and total cost of the final product.*

*Recommendation* 265

*To build up a library of short books of appropriate difficulty for silent reading during English and Kiswahili periods in each primary class, using a high proportion of books that have African backgrounds and having enough titles for each pupil to have his own book to read from.*

### 13.2.3 Continuing and Adult Education

There is a variety of adult education programmes that need to be co-ordinated to serve large numbers of rural populations on the basis of integrated rural development. In particular, this need for co-ordination is urgent in relation to preparation of learning materials and in the development and use of mass media for mass education.

*Recommendation* 266

*To centralize and define responsibility for the production of learning materials, research and evaluation in the field of adult and continuing education.*

### 13.2.4 Preparation and Publication of Materials by the Kenya Institute of Education and Jomo Kenyatta Foundation

The Committee was made to understand that the majority of staff who write book manuscripts at the Kenya Institute of Education are expatriates. Although they have done a good job from a technical point of view, the

Committee would like to emphasize the urgent need to recruit more Kenyan staff who have qualifications and motivation required for book writing. Apart from being expected to have the basic academic qualifications for the jobs involved, Kenyan staff would have the advantage of being familiar with the social and cultural factors of the Kenyan environment that need to be taken into consideration in such work.

In the meantime the Committee would like to see the Institute making more use of experienced Kenyan teachers and competent students for writing and illustrating manuscripts. The Committee also proposes that the Jomo Kenyatta Foundation operates on a commercial basis. It is the view of the Committee that an element of competition will facilitate the elimination of some of the production problems that are being experienced.

*Recommendation* 267

*To require the Kenya Institute of Education and the Jomo Kenyatta Foundation to use the services of teachers and students in the preparation and illustration of manuscripts for books.*

*Recommendation* 268

*To operate the Jomo Kenyatta Foundation on a commercial basis in publishing locally produced materials apart from those produced by the Kenya Institute of Education.*

*Recommendation* 269

*To publish materials produced by the Kenya Institute of Education on a commercial basis by the Jomo Kenyatta Foundation and by other commercial publishers.*

*Recommendation* 270

*To encourage local authors to write for the Jomo Kenyatta Foundation relevant materials to supplement those produced by the Kenya Institute of Education.*

### 13.2.5 Lowering Costs of Educational Materials

The Committee notes with concern the rising costs of educational materials in general as a result of inflation. An even more worrying observation was that the materials produced by the Kenya Institute of Education and the Jomo Kenyatta Foundation were more expensive than similar ones produced by the commercial firms. The Committee therefore urges Government to do everything possible to reduce these costs in view of the fact that these two institutions were established in order to produce educational materials cheaply.

*Recommendation* 271

*To investigate the feasibility of establishing a Government educational printing service with a view to lowering the cost of essential educational materials.*

*Recommendation* 272

*To carry out an in-depth follow up study of production of educational materials with a view of making them cheaper and available on time.*

*Recommendation* 273

*To obtain cheaper educational materials from alternative sources.*

### 13.2.6 School Equipment Production Unit

The recommendations made in this report are going to call for major increase in supply of school equipment. For example, the equipment component of the Harambee Package aimed at Harambee Secondary Schools will have to be increased considerably if quality of education in these schools is to be improved as proposed. The Committee therefore proposes that the School Equipment Production Unit should be enlarged to increase its capacity to meet these needs.

*Recommendation* 274

*To increase the capacity of the School Equipment Production Unit to produce scientific equipment relevant to the national educational needs for scientific equipment for the formal educational system, including primary schools.*

### 13.2.7 Distribution of Educational Materials and the Kenya School Equipment Scheme

Distribution of educational materials and school equipment has been one of the centralized services. The Committee was made to understand that there have been unjustifiable delays due to unnecessary centralization of deliveries. It must be remembered that production of these materials does take time and that further delays in deliveries could reduce the educational value of the materials. The Committee has proposed elsewhere in this report that certain centralized responsibilities be delegated to the district and institutional levels. The Committee would also like to see this delegation being extended to the distribution of educational materials and equipment. Furthermore, the Kenya School Equipment Scheme should be given full bookseller status so that it can be granted the highest possible book discount with a view to reducing prices. The Committee would also like to emphasize the need for co-ordination of all the agencies responsible for book and equipment production and distribution with a view to improving their efficiency and reducing unnecessary costs.

*Recommendation* 275

*To continue distributing all supplies, equipment and materials produced for primary schools through the Kenya Schools Equipment Scheme, but to facilitate efficiency of distribution by getting the supplier to deliver the materials directly to the District Education Boards.*

*Recommendation* 276

*To get the District Education Boards to distribute the supplies, equipment and materials to primary schools once received from the suppliers.*

*Recommendation* 277

*To give the Kenya School Equipment Scheme full bookseller status with a view to getting it granted the highest possible book discount by the Jomo Kenyatta Foundation and other publishers.*

*Recommendation* 278

*To strengthen the machinery for co-ordinating the activities of the various agencies responsible for the production and distribution of educational materials.*

*Recommendation* 279

*To extend the services of the Kenya School Equipment Scheme to all educational institutions.*

*Recommendation* 280

*To get the Kenya School Equipment Scheme to distribute the products of the School Equipment Production Unit.*

### 13.2.8 Repairs and Maintenance

The Committee was made to understand that there is no service locally for maintaining and repairing equipment in schools. Items that could be repaired locally have often to be delivered to Nairobi for minor repairs, thereby causing unnecessary delays and costs. The Committee would like to see such a service established so that equipment can be maintained and repaired where it is in use.

*Recommendation* 281

*To establish a repairs and maintenance service for equipment of educational institutions.*

## CHAPTER 14—ORGANIZATION OF NATIONAL EXAMINATIONS

### 14.1 Evaluation

Examinations provide the means for assessing the degree of past achievement of the learning objectives and, in the process, also serve to stimulate the learner to put the necessary effort into learning. The results of examinations are used in estimating an individual's future potential for continued learning and occupational competence. Examinations should therefore be planned and organized as an integral part of the learning processes. When the two are separated the learning and selection processes are bound to suffer.

Examinations have tended to exercise an undue influence on the education system in Kenya. This has been largely because examinations have been used to serve the highly selective objectives, structure and content of the formal education system. In reality the aim of the education system has been to select a few individuals who are well equipped for placement in the modern sector of the economy. The majority of school-goers are not catered for.

This has been particularly true in primary education and the Certificate of Primary Education examination. This examination has been criticized mainly on three grounds.

Firstly, the examination has been dominated by items which test abilities related only to the cognitive or knowledge aspects of learning. As a result it has encouraged memorization of facts in primary schools.

Secondly, the examination has not fulfilled the function of a terminal examination for the majority of primary school-leavers who have no chance of going further with education. In particular, it has been pointed out that it has given only limited attention to agriculture and practical subjects and has therefore not prepared children for life in the environment in which the great majority of them will live and work, namely rural areas.

Thirdly, the validity of the examination as an instrument for selecting children for secondary schools has been questioned. It has been pointed out to the Committee that the CPE tends to favour children who have attended urban schools because they have an improved socio-economic background and surroundings, better qualified teachers and favourable school facilities.

Another major feature of the CPE is that the whole examination is done in one day. Yet the children will have been taught the subjects separately as Geography, History, Science, English and so on up to about six different subjects. These are then administered in three to four examination papers,

all in one day. There is no other public examination which imposes that degree of stress on the examinees. Furthermore, this is done on young adolescents who have never done a major public examination before. Many of them are also experiencing the physiological changes of adolescence that could in themselves constitute personality change which could make it difficult for the children to cope with the kind of stress that the CPE imposes. Although there may have been genuine logistical and security reasons for administering the examination in one day, the Committee has come to the firm conclusion that the children should be examined according to the subjects they are taught and that no more than two examination subjects should be administered in one day. However, in view of large numbers of candidates involved, the questions can continue to be set so as to be marked by computer.

The Committee has noted with satisfaction that efforts have been made in recent years to improve the examination. English Composition was introduced in 1973 and counts for up to 50 per cent of the English marks. One of the problems with this paper is that it has to be marked manually. The marking is therefore subjective compared with the rest of the CPE papers. The marking has also to be done by teachers within a short period so that the whole examination can be processed in time for selection to secondary schools. This means that the large number of scripts must be marked by a large number of teachers. This makes it difficult to ensure that marking is uniform. The Committee notes that efforts have been made by the Inspectorate and the Examinations Section of the Ministry of Education to improve the marking. The steps taken have included production of a comprehensive marking scheme, training of markers and careful control of marking. The Committee would like to see the Inspectorate and the Examinations Section being strengthened to enable them to improve on these efforts in view of the anticipated increase in enrolments.

The Committee was also made to understand that an analysis of 1974 and 1975 marking distribution revealed that a large number of primary schools were not teaching their children to write continuous and interesting prose. The Committee urges the Ministry of Education to make every effort to ensure that good prose writing is adequately taught. This has implications regarding the quality of teachers and the capacity of the Inspectorate to guide the teaching of creative prose writing in primary schools.

Improvements have also been made in the science paper. For example, in 1975, majority of the items tested the candidates' ability to make accurate observations of their natural environment, their understanding of causes and effects, and their ability to make scientific inferences from given facts. Previously the items tested recall of facts. The Committee notes with satisfaction that an item analysis for all the papers was prepared and circulated to schools through a newsletter with a view to communicating to the teachers the inferences made from the item analysis. The idea that

preparing pupils for the CPE was not a matter of memorizing facts was certainly communicated to those teachers who received and used the newsletter.

Similar improvements have been introduced in the mathematics paper. There have been indications that there were still a large number of children obtaining marks within the guessing range. The problem of the Kenya Primary Mathematics texts was brought to the attention of the Committee which has made a more detailed analysis of this problem elsewhere in this report together with relevant recommendations. The Committee urges the Ministry of Education to do everything possible to ensure that the problem of mathematics teaching is given the fullest attention. In particular, the Committee would like to see much more attention being given to the acquisition of the ability to calculate towards problem-solving, with increasing attention being given to the problems of the rural environment. Since the majority of primary school-leavers do not go to secondary schools, mathematics teaching and examinations should aim at enabling them to solve practical mathematical problems using such items as shopkeeping problems, simple farming and business accounts and calculation of farm yields as these are the kinds of problems that are likely to be met by the school-leavers who will be engaged in agricultural and other self-employment activities.

As part of this process of trying to cater for the majority of primary school-leavers who do not go to secondary schools, primary education and examination must recognize that one of the basic needs of the school-leaver is the ability to communicate effectively. Kiswahili has recently become the national language for Kenya. This means that Kenyans must be able to communicate in Kiswahili. The Committee has proposed elsewhere in this report that Kiswahili be taught and examined as a compulsory subject in primary schools. This is going to have implications in teacher education and quality of teachers and their ability to read, write, calculate and communicate effectively in Kiswahili.

The usefulness of the CPE as an instrument of selection is considerably affected by a number of social problems, mainly repeating, impersonation, collusion and cheating. These social problems have come about as a result of the highly competitive nature of the examination and the high expectation by students and parents that secondary education will automatically lead to a high wage job in the modern sector of the economy. The Committee urges Government to take effective measures to control these rural practices. The Committee does, however, recognize that the problems can only be dealt with effectively if the severe competitiveness for places in secondary schools and modern sector employment was reduced or eliminated. The recommendations made in this report are aimed at making this possible through changes in patterns of job rewards and opportunities and a more diversified and pre-vocational system of formal education that caters for the terminal students.

With regard to repeating in primary schools, children who do so have a much better chance of doing well and being selected for secondary schools. This is because there is a correlation between age and performance at CPE. The practice can be controlled if birth certificates were made a pre-requisite for all children going to Primary 1. If on entry to Primary 1 the personal details of every child were computerized this would go a long way towards working a foolproof system to control repeating and impersonation.

The usefulness of the CPE as an instrument of selection depends on whether the questions in it manage to discriminate the candidates adequately by identifying the candidates that have the abilities being measured. This degree of certainty cannot be achieved without thorough item analysis after each examination. Hitherto CPE item analysis has been done on a voluntary basis because the Examinations Section has neither had the time nor the personnel to do the work. The Committee would, however, like to see item analysis become an integral part of the processing of CPE. This means recruiting personnel who can undertake detailed examination analysis and carry out research. The Committee therefore urges that the establishment of a Research and Development Unit within the Examinations Section of the Ministry of Education be implemented as a matter of urgency.

The next public examination after the CPE is the Kenya Junior Secondary Examination which was re-introduced in 1966 as a terminal examination to cater primarily for harambee and private schools. A large number of teachers and other non-school candidates also take the KJSE. It has become evident to the Committee that the KJSE has not received as much attention as it should. The Committee has proposed elsewhere in this report that harambee secondary schools should be taken over to form an integral part of the education system with a view to improving the quality of education offered there. The Committee has also proposed that the present Form 1 and 2 be transformed to become part of a nine-year basic education made available to all Kenyan children. There is therefore no doubt about the increasing importance of the KJSE in the educational system of the country.

With the planned development of a nine-year basic education, a more diversified KJSE will become the terminal examination for the majority of children in place of the CPE. Furthermore, with the planned diversification of a nine-year basic education system the KJSE will become an increasingly more important selection instrument, especially with regard to placement into a wide variety of vocational training programmes as well as for senior secondary education. The Committee has proposed elsewhere in this report that junior secondary education should be more pre-vocational and diversified. This means that the KJSE will have to be modified accordingly so as to serve as a reliable instrument of selection.

In view of the increasingly large numbers that will be expected to take the KJSE in future, it will also be necessary to make the papers objective. This

will enable them to be marked by machine thereby reducing the time taken and expense incurred. The Committee would, however, like to emphasize that, with the proposed diversification of the junior secondary curriculum, it will be necessary to define clearly the abilities to be tested.

As has been proposed for the CPE, it will be necessary to establish the validity of the KJSE as an instrument of selection into a wide variety of educational and training opportunities. This will be another one of the functions to be performed by the proposed Examinations Research and Development Unit. It will be useful also to establish whether or not grades obtained at CPE can be of help in predicting performance at KJSE and eventually secondary and post-secondary examinations.

While problems relating to the CPE and KJSE are internal, many of the problems relating to the East African Certificate of Education and the East African Advanced Certificate of Education Examinations are of external origin. This is because these two examinations are the responsibility of the East African Examinations Council. This is an international organization set up in 1967 with its secretariat in Kampala, Uganda. The Council worked together with the Cambridge Syndicate until 1973 and took over complete control of these examinations in 1974. Problems arose because of shortage of personnel with the skills required to handle detailed work of examinations.

As far as Kenya was concerned, close liaison with the Secretariat in Kampala was not easy to maintain. As a result of negotiations a Regional Office was opened in Nairobi in May, 1975. It had become evident, however, that an international body would find it difficult to respond to the rapid changes that were occurring in Kenya. This inevitably led to delays in effecting changes if and when these were found to be necessary nationally just because of the international nature of the Council. This difficulty is caused by the need to have unanimous agreement over syllabuses. Alternatives are considered only if the two member countries, Uganda and Kenya (Tanzania having pulled out of it earlier), do not agree.

The Committee was made to understand that this situation has arisen in a number of subjects and that the chances are that more cases will continue to arise. It is the firm view of the Committee that decisions over syllabuses should be a matter for each country to make. The Committee has made proposals for major changes in the senior secondary education which is proposed to become a continuous four-year programme between Form 3 and 6. This will lead to the abolition of the EACE and an overhaul of the EAACE for a more diversified, broadened and terminal examination for the majority of students. In view of the foregoing, the Committee has come to the firm conclusion that it will not be possible to effect any of these changes expeditiously under the international control of the East African Examinations Council. The Committee therefore proposes the establishment of a National Examinations Council which will bring together the functions which

have been performed by the East African Examinations Council on secondary, commercial and technical examinations as well as those of the Examinations Section of the Ministry of Education.

The main purpose for creating such a body is to establish a fully professional agency which has the competence to administer, scrutinize and use examinations to effect the most desirable educational developments in the country. The proposed Examinations Research and Development Unit will be part of the National Examinations Council. The other purpose for creating the national body is to provide strong co-ordination of the various examining bodies in private, professional and public organizations. Although the individual examining bodies will be expected to continue to handle their own examinations, the National Examinations Council will co-ordinate efforts to find ways of improving education and training through increasingly more appropriate examinations as a result of research and development activities.

The Committee recognizes that the Examinations Section will form the basis for the formation of the proposed National Examinations Council. The Examinations Section was started in 1964. Before that time examinations were handled by the Inspectorate. At Independence, however, it became obvious that the increased enrolments in primary schools would need a separate examinations section. One of the major tasks undertaken then by the new examinations section was to devise the present machine-scored objective test to replace the earlier manually marked versions. The section has been faced with increased enrolments in primary and secondary schools since 1963. The KJSE was added to the responsibilities of the section in 1966.

The Examinations Section functions mainly as an administrative unit. The professional aspects of examinations are still handled by the Inspectorate. The Committee has noted elsewhere that the Inspectorate does not have the capability to handle its other responsibilities such as continuous assessment of teachers in order to reward good work and to impose sanctions for poor work and to give general guidance in educational development in schools. In view of this situation, it is the view of the Committee that both the administrative and professional functions of examinations should be vested in one highly competent National Examinations Council which should be staffed with competent and experienced professional personnel.

## 14.2 Goals and Programmes of Action

### 14.2.1 National Examinations Council

As indicated in the foregoing evaluation, there is need to develop strong co-ordination and control of examinations in the country under one national body that can respond easily to its rapidly changing social and economic

environment. This national body would also be expected to carry out research and development activities aimed at finding the most appropriate ways in which examinations can facilitate educational development.

*Recommendation* 282

*To establish a National Examinations Council to be responsible for all examinations.*

*Recommendation* 283

*To develop strong academic co-ordination and control by the proposed Kenya National Examinations Council which would have an overall responsibility for setting standards and organizing examinations in all areas, including provision of examination materials and evaluation of training and qualifications obtained from outside Kenya.*

*Recommendation* 284

*To establish controls over professional councils by the Kenya National Examinations Councils which will have sole responsibility over standards required for joining the various professions.*

### 14.2.2 Examinations Research and Development

To be able to determine the effect of the various examinations on the educational system it will be necessary to carry out continuous research and analysis on examinations. The Committee therefore urges that the proposed Research and Development Unit of the Examinations Section be set up as a matter of urgency.

*Recommendation* 285

*To establish the Examination Research and Development Unit as a part of the Examinations Section of the Ministry of Education as a matter of great urgency.*

### 14.2.3 Continuous and Progressive Assessment

One of the ways of ensuring that examinations become an integral part of the learning processes is by increasing the use of continuous and progressive assessment. The teacher and the student are thereby enabled to detect early any weaknesses in the entire learning process, whether these are in the student, the teacher, the learning materials or other facilities. This in turn facilitates corrective measures being taken early enough to ensure that the desired educational goals are achieved. Continuous and progressive assessment also enables the student to learn progressively in steps rather than wait to

cram for an examination at the end of the course. The Committee would therefore like to see examinations systems making greater use of progressive assessment.

*Recommendation* 286

*To integrate progressive assessment into the overall evaluation system of academic achievement.*

*Recommendation* 287

*To integrate continuous assessment and aptitude testing with learning processes and to include them in selection for secondary and other forms of education and training in association with a final selection examination at the end of Junior Secondary* 2.

*Recommendation* 288

*To keep and use records and results of continuous assessment together with those of public examinations in secondary education selection procedures for university entry.*

*Recommendation* 289

*To inculcate a sense of common purpose by removing the vicious competitiveness of formal examinations and integrating them with the processes of learning which are assessed continuously and progressively throughout the learning period.*

### 14.2.4 Examiners

Improvement of the quality of teachers through training and retraining will in general result in improvement of their general skills as examiners. This need for continuous improvement of evaluation skills is particularly great in professional education and training. The Committee would therefore like to see the establishment of programmes to improve the skills of those who will act as examiners.

*Recommendation* 290

*To consolidate the professional competence of examiners by establishing a new two-tier correspondence course leading to a Technical Examiners Certificate offered by the Kenya Technical Teachers College.*

*Recommendation* 291

*To enhance the competence of trade testers by in-service training to be offered by the Kenya Technical Teachers College and leading to an Industrial Trade Testing Proficiency Certificate.*

TABLE 14.1—ANALYSIS OF CAMBRIDGE SCHOOL CERTIFICATE AND E.A.C.E. RESULTS, 1961 TO 1975

(1) School Candidates

| | Sitting Candidates | Divisions I, II or III | | G.C.E. or E.A.C.E. Pass | | Fail | |
|---|---|---|---|---|---|---|---|
| | | Numbers | % | Numbers | % | Numbers | % |
| 1961 .. .. | 3,847 | 2,200 | 57 | 493 | 13 | 1,154 | 30 |
| 1962 .. .. | 4,042 | 2,407 | 60 | 552 | 14 | 1,083 | 27 |
| 1963 .. .. | 4,441 | 2,745 | 62 | 456 | 10 | 1,240 | 28 |
| 1964 .. .. | 4,937 | 3,290 | 67 | 386 | 8 | 1,261 | 26 |
| 1965 .. .. | 5,878 | 4,227 | 72 | 1,082 | 18 | 569 | 10 |
| 1966 .. .. | 6,455 | 4,667 | 72 | 1,120 | 17 | 668 | 10 |
| 1967 .. .. | 9,230 | 6,366 | 69 | 1,666 | 18 | 1,198 | 13 |
| 1968 .. .. | 12,835 | 7,655 | 60 | 3,669 | 29 | 1,513 | 12 |
| 1969 .. .. | 16,693 | 9,197 | 55 | 5,086 | 30 | 2,410 | 14 |
| 1970 .. .. | 18,987 | 10,522 | 55 | 5,096 | 27 | 3,369 | 18 |
| 1971 .. .. | 22,517 | 10,500 | 47 | 7,935 | 35 | 4,082 | 18 |
| 1972 .. .. | 26,217 | 12,494 | 48 | 8,138 | 31 | 5,585 | 21 |
| 1973 .. .. | 28,385 | 14,199 | 50 | 8,598 | 30 | 5,588 | 20 |
| 1974 .. .. | 32,311 | 15,847 | 49 | 8,866 | 27 | 7,598 | 24 |
| 1975 .. .. | 37,928 | 18,821 | 50 | 10,532 | 28 | 8,575 | 23 |

**Sources:** Ministry of Education Annual Reports and Examinations Section.

TABLE 14.2—ANALYSIS OF CAMBRIDGE SCHOOL CERTIFICATE AND E.A.C.E. RESULTS, 1961 TO 1975

(2) Private Candidates

| | Sitting Candidates | Divisions I, II or III | | G.C.E. or E.A.C.E. Pass | | Fail | |
|---|---|---|---|---|---|---|---|
| | | Numbers | % | Numbers | % | Numbers | % |
| 1961 .. .. | 488 | 143 | 29 | 41 | 8 | 304 | 62 |
| 1962 .. .. | 668 | 138 | 21 | 35 | 5 | 495 | 74 |
| 1963 .. .. | 1,093 | 288 | 26 | 66 | 6 | 739 | 68 |
| 1964 .. .. | 1,245 | 223 | 18 | 54 | 4 | 968 | 78 |
| 1965 .. .. | 1,481 | 330 | 22 | 473 | 32 | 678 | 46 |
| 1966 .. .. | 1,581 | 292 | 18 | 549 | 35 | 740 | 47 |
| 1967 .. .. | 2,878 | 626 | 22 | 864 | 30 | 1,388 | 48 |
| 1968 .. .. | 4,002 | 819 | 20 | 1,926 | 48 | 1,257 | 31 |
| 1969 .. .. | 3,501 | 649 | 19 | 1,709 | 49 | 1,143 | 33 |
| 1970 .. .. | 4,283 | 885 | 21 | 2,247 | 52 | 1,151 | 27 |
| 1971 .. .. | 4,850 | — | — | 3,980 | 82 | 870 | 18 |
| 1972 .. .. | 5,109 | — | — | 3,840 | 75 | 1,269 | 25 |
| 1973 .. .. | 6,044 | — | — | 4,545 | 75 | 1,499 | 25 |
| 1974 .. .. | 5,773 | — | — | 3,522 | 61 | 2,251 | 39 |
| 1975 .. .. | 9,698 | 1,235 | 13 | 4,960 | 51 | 3,503 | 36 |

**Sources:** Ministry of Education Annual Reports and Examinations Section.

NOTE:— For the years 1971 to 1974 private candidates were not graded into E.A.C.E. Divisions.

TABLE 14.3—SUBJECT ANALYSIS OF 1975 E.A.C.E. RESULTS

(1) Aided Schools

| | PERCENTAGES AWARDED | | |
|---|---|---|---|
| | Grades 1 to 6 (Credits) | Grades 7 and 8 (Passes) | Grade 9 (Failures) |
| English Language .. .. | 37 | 39 | 24 |
| Other "Arts" Subjects .. | 41 | 30 | 29 |
| Mathematics .. .. .. | 30 | 18 | 52 |
| Science Subjects .. .. | 40 | 30 | 30 |
| Applied Subjects .. .. | 39 | 33 | 28 |
| ALL SUBJECTS .. | 39 | 29 | 32 |

(2) Harambee Schools

| | PERCENTAGES AWARDED | | |
|---|---|---|---|
| | Grades 1 to 6 (Credits) | Grades 7 and 8 (Passes) | Grade 9 (Failures) |
| English Language .. .. | 10 | 36 | 54 |
| Other "Arts" Subjects .. | 16 | 27 | 57 |
| Mathematics .. .. .. | 6 | 10 | 84 |
| Science Subjects .. .. | 19 | 24 | 57 |
| Applied Subjects .. .. | 17 | 28 | 55 |
| ALL SUBJECTS .. | 14 | 26 | 60 |

(3) Private Schools

| | PERCENTAGES AWARDED | | |
|---|---|---|---|
| | Grades 1 to 6 (Credits) | Grades 7 and 8 (Passes) | Grade 9 (Failures) |
| English Language .. .. | 18 | 35 | 47 |
| Other "Arts" Subjects .. | 19 | 27 | 54 |
| Mathematics .. .. .. | 11 | 9 | 80 |
| Science Subjects .. .. | 22 | 22 | 56 |
| Applied Subjects .. .. | 16 | 25 | 59 |
| ALL SUBJECTS .. | 18 | 24 | 58 |

**Source:** Ministry of Education Examinations Section.

TABLE 14.4—ANALYSIS OF CAMBRIDGE H.S.C. AND E.A.A.C.E. RESULTS, 1961 TO 1975

(1) School Candidates

| | Sitting Candidates | Numbers Awarded 2 or more Principal Level Passes | Percentage |
|---|---|---|---|
| 1961 .. .. .. .. | 182 | 124 | 68* |
| 1962 .. .. .. .. | 349 | 161 | 46 |
| 1963 .. .. .. .. | 441 | 241 | 55 |
| 1964 .. .. .. .. | 445 | 241 | 54 |
| 1965 .. .. .. .. | 584 | 272 | 47 |
| 1966 .. .. .. .. | 757 | 348 | 46 |
| 1967 .. .. .. .. | 1,318 | 563 | 43 |
| 1968 .. .. .. .. | 1,279 | 714 | 56 |
| 1969 .. .. .. .. | 1,472 | 892 | 61 |
| 1970 .. .. .. .. | 1,891 | 1,109 | 59 |
| 1971 .. .. .. .. | 2,448 | 1,335 | 55 |
| 1972 .. .. .. .. | 2,773 | 1,478 | 53 |
| 1973 .. .. .. .. | 3,422 | 1,864 | 54 |
| 1974 .. .. .. .. | 3,718 | 2,130 | 57 |
| 1975 .. .. .. .. | 4,089 | 2,584 | 63 |

**Sources:** Ministry of Education Annual Reports and Examinations Section.
*Former European and Asian Schools.

TABLE 14.5—ANALYSIS OF CAMBRIDGE H.S.C. AND E.A.A.C.E. RESULTS, 1966 TO 1975

(2) Private Candidates

| | Sitting Candidates | Numbers Awarded 2 or more Principal Level Passes | Percentage |
|---|---|---|---|
| 1966 .. .. .. .. | 48 | 1 | 2 |
| 1967 .. .. .. .. | 18 | — | — |
| 1968 .. .. .. .. | 337 | 12 | 3 |
| 1969 .. .. .. .. | 496 | 25 | 5 |
| 1970 .. .. .. .. | 556 | 18 | 3 |
| 1971 .. .. .. .. | 743 | 34 | 5 |
| 1972 .. .. .. .. | 923 | 36 | 4 |
| 1973 .. .. .. .. | 1,775 | 78 | 4 |
| 1974 .. .. .. .. | 2,453 | 159 | 6 |
| 1975 .. .. .. .. | 2,947 | 200 | 6 |

**Sources:** Ministry of Education Annual Reports and Examinations Section.

TABLE 14.6—ANALYSIS OF 1975 E.A.A.C.E. RESULTS BY SUBJECTS

| | School Candidates | Principal Level Passes | |
|---|---|---|---|
| | | Numbers | Percentages |
| Divinity .. .. .. | 597 | 497 | 83 |
| Kiswahili .. .. .. | 335 | 269 | 80 |
| History .. .. .. | 1,227 | 970 | 79 |
| Literature in English .. | 1,119 | 829 | 74 |
| Geography .. .. | 2,058 | 1,360 | 66 |
| Biology .. .. .. | 1,255 | 741 | 59 |
| Modern Mathematics .. | 865 | 508 | 59 |
| Trad. Mathematics .. | 635 | 318 | 50 |
| Physics .. .. .. | 1,262 | 550 | 44 |
| Chemistry .. .. | 1,908 | 828 | 43 |
| ALL SUBJECTS .. | 11,261 | 6,870 | 61 |

**Source:** Ministry of Education Examinations Section.

## CHAPTER 15—MANAGEMENT OF EDUCATION AND TRAINING

### 15.1 Evaluation

Management entails the activities of planning, controlling, organizing, appraising and leading the procurement and utilization of both human and physical resources at the disposal of an organization in order to achieve the organization's defined ends. The training policies and programmes of the Ministry of Education and other Government Ministries have been defined in the 1974 to 1978 Development Plan.

Education became a centralized service at Independence. The powers for planning and direction were vested in the headquarters to ensure the establishment and development of a unified service. One of the strongest reasons for this was the need to dismantle the racially based structure of education established during the colonial years.

The organizational structure of the Ministry of Education has been set up *"... to promote the education of the people of Kenya and the progressive development of institutions devoted to the promotion of such education and to secure the effective co-operation of all public bodies concerned with education..."* as provided under Section 3 (1) of the Education Act (1968).

The Ministry of Education branches from the headquarters to 8 Provincial and 39 District Offices. The field administration is carried out at the provincial and district levels by the Provincial and District Education Officers respectively. The Committee is of the view that one of the problems of this system is the inefficiency created by the procedures which have to be followed. For example, an Assistant Education Officer wishing to report on a school to the Primary Education Section of the headquarters has to write through the District Education Officer and Provincial Education Officer. This results in unnecessary delays and loss of efficiency.

The secondary schools and post-secondary educational institutions are run by Boards of Governors. Although there is a large degree of delegation of managerial functions to these boards they are, nevertheless, limited in their operations in respect of staff appointments, admission of students and discipline of both staff and students. These functions are still centralized either at the headquarters or the Teachers Service Commission. The Committee therefore suggests the delegation of a large number of these functions in order to enhance effective management of schools especially the need for maintaining discipline.

Although the District Education Boards have been established and given legal powers *"to superintend the management of public schools"*, shortage

of personnel in the field and at the headquarters has made the implementation of this delegation slow. The relationships between the Boards of Governors, Primary School Committees, the Teachers Service Commission and the District Education Boards have not been spelt out in relation to the need for delegation of managerial functions. The Committee proposes that these relationships should be spelt out.

With regard to Primary Schools, the managerial roles of School Committees are set up under the authority of the Education Act (1968) but their functions are not defined. In general, Primary School Committees need to have more say on the discipline of teachers and pupils, school equipment and general running of the school. The managerial functions of the School Committees should be co-ordinated and supported by contributions of the parents and community. The Committee urges that the Ministry of Education should define the managerial functions of the School Committees and facilitate the social integration of schools through Parent Teacher Associations and other community organizations. Furthermore, the Committee suggests that the formation and effective functioning of Parent Teacher Associations, especially in the rural areas, should be encouraged, facilitated and guided by the Ministry of Education.

According to the present legal provision, the Boards of Governors are subordinate to the District Education Boards. In practice, however, the District Education Board and the District Education Officer have very little to do with the running of secondary schools in their districts. The Provincial Education Officer deals with secondary schools while the District Education Officer and the District Education Boards are responsible for running primary schools. Many of the problems (e.g. discipline) in secondary schools are currently referred to the Provincial Education Officer who may be more than 150 kilometres away while they could be dealt with much more expeditiously and efficiently at the district level. A proposal has been made within Government for the establishment of Provincial Education Boards. But in view of the need for expeditious and efficient running of all primary and secondary schools, the Committee finds that the need lies in giving the District Education Boards more powers to deal with managerial problems of the primary and secondary schools within the district. It is the view of the Committee that the Ministry of Education should therefore delegate more powers to the School Boards and Committees who should report to and through the District Education Boards. Furthermore, the voluntary school sponsors like the churches should be given a better representative status in the local managerial bodies of schools.

There are educational institutions which operate as separate and independent management units with the headquarters acting as co-ordinator and director of policies in broad terms. These include the University of Nairobi and the Teachers Service Commission. While in the case of primary,

secondary and post-secondary institutions the need is for greater delegation of authority, the above two institutions are examples of complete decentralization of managerial functions. The Acts controlling the functions of these institutions leave the Minister of Education and his officials with no powers of control over their activities. The Minister may withhold grants or refuse to approve expenditure but has no say on quality of staffing, appointment and dismissals once financial allocations have been approved.

The Teachers Service Commission appoints teachers, posts them, removes them and pays their salaries centrally. This situation arose as a result of the need to have a unified teaching service. Although the Teachers Service Commission has delegated disciplinary functions to Provincial and District Education Officers and Boards of Governors, these bodies only play the role of reporting cases of bad discipline to the Commission which may not have any background to the cases. The result of this procedure has been a deterioration of discipline among teachers and in turn among pupils. There are also problems of late payments of salaries and payments of fictitious teachers. A lot of time and money is also spent on unnecessary trips to Nairobi by teachers and field officers to sort out very trivial matters. The Committee has therefore proposed the establishment of the necessary field posts to enable the Teachers Service Commission to effectively delegate many of its personnel functions.

The Committee would also like to give a general comment on the question of public service and private business, with special reference to the teaching profession. Efficient management requires full-time attention by those entrusted with responsibility for management either in the public service or in private business. The Committee received comments from the public and those presenting evidence to the effect that participation by public servants in private business was getting abused by a few public servants and teachers. These few are those attempting to run private business concurrently with public duties.

The Committee did not have time to study the problems resulting from the participation and involvement of public servants in private business. However, as the comments were mainly directed to the teaching service in relation to discipline in schools, the Committee looked at the Ndegwa recommendations on this matter. The Committee felt that the issue was one of national values and therefore affected not only teachers and public servants, but also other nationals holding responsibility in the private sector. The Committee therefore only wishes to reiterate that problems of management will arise from some of these multiple responsibilities and loyalties unless strict controls are vigorously applied.

The Committee wishes to make a distinction between participation and direct involvement. It would have been impossible for the nation to Kenyanize private business without participation by those who have had the means to

do so. However, direct involvement is untenable with efficient discharge of duties in a full-time employment position. Such involvement tends to impair concentration in either the place of employment or the business purported to be directly operated by such employees. In order that leadership in both public services and business activities is maintained there is need for discouraging direct involvement in private business by those engaged in full-time duties either in teaching or public service. From the point of view of the economy as a whole in the long run, the Committee reiterates the need to intensify the training and recruitment of full-time business people.

## 15.2 Goals and Programmes of Action

### 15.2.1 General Policy Organization

In order to ensure that educational development is appropriately co-ordinated and controlled in the interests of national unity, it is essential to continue vesting the general policy responsibilities in the head office of the Ministry of Education. The Committee would, however, like to emphasize that while the head office should continually evaluate educational development and stimulate the most appropriate changes, these need to be carried out by modifying existing structures rather than wholesale replacements with new ones as was done in the case of the Kenya Primary Mathematics. The Committee also urges the Government to do everything possible to develop education and training in an increasingly integrated manner and in close relation to the planned and existing national development needs.

*Recommendation* 292

*To continue vesting the duty of policy formulation and direction in the Ministry of Education.*

*Recommendation* 293

*To implement reforms in education and training by modifying existing structures rather than by replacing them with something entirely new and unfamiliar.*

*Example is the Kenya Primary Mathematics.*

*Recommendation* 294

*To develop education and training in an integrated manner and to allocate funds to education and training after taking explicit account of needs in all levels.*

### 15.2.2 Delegation of Management Powers

The Committee would like to see a more meaningful delegation of functions, with the District Development Committees being requested to co-ordinate projects on the basis of priorities at district level. As a process of integrating educational institutions with the environment in which they are located, the Committee would also like to see the parents and the

community concerned with a particular school being involved in some aspects of school life such as discipline and general welfare. The Boards of Governors and School Committees should themselves be guided and made to assure greater responsibilities in running schools.

The Committee was particularly concerned with the low levels of efficiency with which problems of primary and secondary schools are dealt with due to excessive centralization of functions. It is therefore the strong view of the Committee that District Education Boards should be strengthened and be made to assume responsibility for all primary and secondary schools within their respective districts.

*Recommendation* 295

*To give a large measure of delegated authority to various agencies managing education in the field.*

*Recommendation* 296

*To enlist co-operation between sponsors, teachers, parents and various institutional governing bodies as a step towards proper control and discipline in the schools.*

*Recommendation* 297

*To involve the local communities in the various processes of educational development and management of learning institutions.*

*Recommendation* 298

*To delegate to institutions the responsibility of disciplining pupils on the basis of policy guidelines issued by the head office and subject to the right of appeal by parents to the Director of Education.*

*Recommendation* 299

*To make District Education Boards responsible for all primary and secondary schools within their areas of jurisdiction, subject to broad national guidelines and policies, under the supervision of the Provincial Education Officers.*

*Recommendation* 300

*To draw up a common code of management to guide the functions of School Committees and Boards of Governors.*

### 15.2.3 Harmonization of Institutional Laws

There are a number of laws which govern various institutions of education and training. It is the view of the Committee that these need to be reviewed with the aim of ensuring co-ordination and harmonization of the various activities and institutions concerned.

*Recommendation* 301

*To review the Education Act* (1968), *the University of Nairobi Act* (1970) *and the Teachers Service Commission Act* (1966), *and other relevant*

*legislation on education and training, including the relevant orders, statutes and rules, to make them more efficient and mutually supportive.*

### 15.2.4 Teachers Service Commission

As the teaching force grows in size a number of the centralized functions of the Teachers Service Commission will have to be decentralized to achieve greater efficiency. The Committee proposes that this process should be started by creation of operational posts of the Commission at district and provincial levels to deal with personnel problems where they occur. The Committee was made to understand that these are carried out at the moment through delegated agencies who are not under the direct supervision of the Commission. The decentralized functions of the Commission will nevertheless need to be closely co-ordinated.

*Recommendation* 302

*To co-ordinate the activities of the Teachers Service Commission more closely with a view to making its role more efficient and effective throughout the teaching service.*

*Recommendation* 303

***To establish operational posts of the Teachers Service Commission at district and provincial levels.***

*Recommendation* 304

***To investigate the feasibility of paying teachers' salaries at provincial and district levels.***

### 15.2.5 Co-ordination of Pre-primary Educational Activities

Although the need for having pre-primary education is normally implied at the time of admission into primary school, the Ministry of Education has no responsibility or control over the standards of entry into Primary 1. The primary schools in Nairobi prefer those children who have attended pre-primary schools even though no children are kept out purely on the grounds of not having attended pre-primary schools. The majority of children, however, cannot afford to pay the high fees of the good pre-primary schools and end up at a disadvantage when placed with children who have attended such pre-primary schools.

This is because pre-primary education has been the responsibility of the Department of Social Services and County Councils in the rural areas. In the towns the pre-primary schools are in the hands of municipalities and private individuals. From a national point of view it can therefore be said that pre-primary education does not belong to any particular Ministry. The Committee considers that the most urgent need is the co-ordination of all the activities which constitute pre-primary education under one authority. It is the view of the Committee that the Ministry of Education is the most appropriate authority to do so.

Ideally the Committee would have preferred to see the Ministry of Education take over the provision of 1 to 2 years of pre-primary education to all children. Whether or not the Ministry of Education will be able to do this in the country as a whole will be determined by the availability of resources. Owing to financial constraints indicated in its Terms of Reference, the Committee is satisfied that such resources are not available to be able to do so during the period under consideration. It is a matter which the Committee would, nevertheless, like to see given consideration in the future.

In the meantime there is need to distinguish between real pre-primary education given to the 5- to 6-year-old children who are about to start primary education and the kind of general day care service given for the 3- to 5-year-old children. This distinction can be found in the urban areas. It does not exist in the rural areas where the pre-primary activities are often not planned. In the rural areas pre-primary teachers are not trained or experienced and therefore tend to do whatever they believe ought to be done, namely, to try and teach all children to read, write and numerate. From a managerial point of view there is need to recognize that even in the rural areas it is no longer possible for children to be cared for under the traditional family arrangements due to social and economic changes which have occurred there. Pre-primary centres are in actual fact becoming essential for fulfilling both purposes of day care as well as laying down foundations for primary education. If education is looked upon as a lifelong process then the foundations laid at pre-primary schools are for this lifelong process and not just for primary education.

It is in fact generally agreed that pre-primary education helps to lay down the foundations of a child's future educational development and general socialization. The system, especially in the rural areas, has been observed to be in need of review and rationalization, preferably under the Ministry of Education as recommended below. The Committee has also recommended elsewhere in this report that the Ministry of Education should also be responsible for the training of teachers and production of culturally-relevant educational materials.

*Recommendation* 305

*To co-ordinate and standardize the separate activities of the Ministry of Housing and Social Services and various other bodies involved in pre-primary education into a unified system under the Ministry of Education.*

### 15.2.6 Expansion of Secondary Schools Supervisory Services

Practically every educational commission has recommended that the supervisory services for secondary schools be expanded and strengthened with qualified and experienced personnel. Apart from possessing these attributes such people should also be persons of the highest professional integrity. The Committee was made to understand that there was a serious problem in

attracting such Kenyans into supervisory and inspectorate posts. The Committee would like to reiterate that it is crucial to attract people who have had considerable experience in teaching and educational administration into these posts. They are the most suitable persons who can guide schools with authority and a serious attempt should be made to attract such candidates.

*Recommendation* 306

*To expand secondary schools supervisory services which would offer stronger incentives to qualified and experienced citizen candidates.*

### 15.2.7 Establishment of a Section on Special Education

Education for the handicapped has been largely in the hands of a number of voluntary agencies. The Kenya Government has supported the development of special education and the country has made considerable progress in this area. However, in view of the estimated large numbers of handicapped children who for various social and environmental reasons are not being reached by the existing services the Committee proposes a major expansion and co-ordination of the Government services for the handicapped based in the Ministry of Education. In particular, the Committee would like to see the establishment of a new and expanded section on special education and the setting up of the proposed Co-ordinating Committee as a matter of urgency.

*Recommendation* 307

*To establish a separate section on special education in the Ministry of Education and to provide it with qualified personnel to co-ordinate and handle all the work related to special education.*

*Recommendation* 308

*To accelerate the setting up of the Special Education Co-ordinating Committee.*

*Set up immediately the Special Education Co-ordinating Committee representing the various Ministries and voluntary agencies involved.*

*Committee to undertake an evaluation of the current provisions and to disburse Government funds for Special Education according to a list of priorities.*

*Recommendation* 309

*To train and recruit suitably qualified personnel to serve the various Ministries concerned with handicapped children.*

### 15.2.8 Guidance and Counselling

The Committee would like to emphasize that guidance and counselling is expected to play an increasingly important role in the education system. This is because the totality of the growth and development of youth does depend on guidance and counselling to ensure its appropriate integration into the

values and productive activities of society. To be of use therefore such guidance and counselling should be based on the values of society regarding the expectations of what education and training should enable society to achieve. The Committee has made strong proposals elsewhere in this report regarding the importance of defining the social, cultural and economic values of society so that they can be imparted to the youth through the education system.

The current guidance and counselling service of the Ministry of Education has been traditionally aimed at guiding students to various career requirements. This is one of the reasons why it is concentrated mainly in secondary schools where education has been expanded largely in relation to manpower requirements during the first decade of independence. But even then guidance and counselling is based on the voluntary effort of teachers who feel motivated to provide it. Hitherto, it has not been a requirement of the normal duties of teachers.

It is the view of the Committee that the present guidance and counselling service of the Ministry of Education cannot be carried out effectively as long as it is left to teachers who not only have other heavy duties to attend to but are often not knowledgeable or skilled in counselling. It is proposed elsewhere in this report that provision should be made for training teachers in guidance and counselling. The Committee would also like to see recruitment of fully qualified professional persons in this area for supervising the work of guidance and counselling in the education system.

Apart from counselling students the guidance and counselling service should also assist in reducing conflicts between students and their parents regarding choices of education and training and various careers.

The Ministry of Education will therefore be expected to expand, co-ordinate and supervise the functions of guidance and counselling, especially as it is proposed that all teachers must be trained in guidance and counselling and made to do it as one of their normal duties. This calls for an expansion of the relevant section of the Ministry of Education.

The question still remains as to how early in education should a child be counselled regarding such matters as social, economic and cultural values, responsibilities and opportunities. In general, this must be extended to primary schools as it is during this time that children show a tremendous interest in all these matters. They naturally identify themselves with personalities and careers as they learn how to succeed. In a country like Kenya where the majority of primary school children do not get the opportunity of proceeding with formal education, balanced guidance and counselling would therefore appear to be absolutely essential in primary schools.

But in order to be meaningful and less frustrating to the students and parents, guidance and counselling must be based on long-term planning of manpower development, creation of occupational opportunities and a genuine effort by the public in general to uphold the highest social, cultural and economic values of society.

The main point the Committee would like to emphasize is that guidance and counselling services must be concerned with the overall development of the person and not just about careers. It will therefore be necessary to expand the Guidance and Counselling Section of the Ministry of Education. It will also be necessary to require all teachers to undertake guidance and counselling as part of their normal duties. The following recommendations are made to facilitate these developments.

*Recommendation* 310

*To provide the necessary resources for the expansion of the Guidance and Counselling Service of the Ministry of Education as defined in the Development Plan* (1974 *to* 1978).

*Recommendation* 311

*To require the head of each educational institution (or departments) to assign a member of staff to be responsible for seeing that information on Guidance and Counselling is provided to all students and teachers and that opportunities for individual guidance and counselling by teachers and parents are available at appropriate times.*

*Recommendation* 312

*To require each institution to build up and use a cummulative record of the students' academic performance, home backgrounds, aptitudes and interests, and special problems, to facilitate guidance and counselling.*

*Recommendation* 313

*To establish courses at the University of Nairobi for training professional workers in guidance and counselling.*

### 15.2.9 Expansion of the Planning Unit

The large number of recommendations made in this report to effect changes in the educational system will require a strengthened planning unit.

*Recommendation* 314

*To make the Planning Unit of the Ministry of Education more effective in undertaking long- and short-term planning by strengthening it and vesting it with the necessary authority.*

### 15.2.10 Expansion of the Curriculum Support Services

It is the view of the Committee that the support services especially those of examinations and inspection, will need to be enlarged further if they are to play their proper roles in the changing educational system.

*Recommendation* 315

*To continue to enlarge and strengthen Curriculum Support Services (Examinations Section, Inspectorate, Kenya Institute of Education) with a view to enabling them to implement the proposed changes in education, including giving greater guidance to educational development at the institutional level and to continually appraise teachers, heads of schools and their deputies.*

### 15.2.11 Programme Planning and Development

One of the basic approaches in the planning and development of education is that of well defined programmes. Provided the objectives of such programmes are clearly defined and adequate evaluation requirements incorporated into them, the Committee endorses the continuation of this practice.

*Recommendation* 316

*To continue to structure the administrative organization along programme lines and to make programmes self-developing and evaluating.*

*Recommendation* 317

*To include planning and development into the activities of each programme.*

### 15.2.12 Training in Management

Continuous lifelong education and training is an essential requirement for all those entrusted with complexities of public administration. As the services develop they become increasingly complex and those in charge must continually enhance their knowledge and skills if they are to maintain high levels of competence. The Committee would like to see this become a regular practice in respect of managerial and other professional attributes of educational personnel at all levels of responsibility.

*Recommendation* 318

*To draw up management training programmes to cover all administrators and supervisors (inspectors) in education and to ensure and accept that continuous and constant training of operating personnel is a prerequisite to the success of management.*

## CHAPTER 16—CO-ORDINATION OF EDUCATION AND TRAINING

### 16.1 Evaluation

> "I have requested many of you to ensure proper use of our natural resources, our forests, rivers, the soil, our entire environment must be carefully utilized, protected and conserved. To be able to do this, I am directing that all Government Ministries or Departments should in future co-ordinate their planning activities more effectively to ensure that our developmental efforts do not unnecessarily destroy the natural resources, or the environment on which our future livelihood depends." (*President Kenyatta,* 1976).

This directive was given by President Kenyatta on the occasion of the 1976 Kenyatta Day. It recognizes that various developmental activities could destroy the environment unless their planning is carefully co-ordinated by all the Government Ministries concerned. With regard to education and training, there is no machinery at the national level to co-ordinate, monitor and evaluate the multiplicity of activities which are carried out under the Government Ministries as well as private and community organizations. It is the strong view of the Committee that without such a machinery the allocation of the available resources and the efficiency with which these resources are used are likely to result in unnecessary wastage of the limited national resources. Furthermore, the educational system is likely to continue to operate in relative isolation from the social and economic realities of the country.

The Committee considers lack of co-ordination to be one of the main factors underlying the puzzling paradox of the existence of increasing numbers of educated people who are unemployed while various key areas of national development continue to be held back by lack of people with the relevant attitudes, knowledge and skills. The Committee views this paradoxical situation as a major wastage of resources and considers the establishment of a co-ordination machinery within the Government to be one of the most urgent and vital requirements if the situation is to be prevented from developing into a serious crisis.

It is recognized that churches, commercial firms and other private and industrial organizations have been making contributions to education and training with varying degrees of relevance and success. There is, however, very little co-ordination of their activities in relation to social and economic development on the one hand and the Government controlled formal sector of education on the other. For example, after licensing commercial institutions for training there is little or no co-ordination or follow up evaluation

of their activities. While the education and training given may therefore satisfy the specific goals of the private institutions, these may not take into consideration the national requirements or the need for increasing the general marketability of the training given. In their efforts to avoid loss of those they have trained, some industries are reported to be giving types of training which are not applicable or recognized anywhere else, thereby enslaving their employees to their own particular employment and offering them poor remuneration.

The Committee would therefore like to emphasize the urgency of the need to establish a national machinery for co-ordination and follow up evaluation of education and training activities being run by different agencies. This will facilitate promotion of those programmes which are of value and modification or abolition of those that are not valuable. The co-ordination and evaluation machinery would also be responsible for awarding recognition for achievement in order to facilitate motivation of those giving valuable non-formal and formal education.

The Committee has come to the conclusion that, lack of co-ordination of education and training activities as such and in relation to social and economic realities of the country, has been largely responsible for the relative increase of educational expenditure on the one hand, and rising rates of unemployment of school-leavers on the other. It is also partly responsible for the present imbalances of distribution of educational facilities in the country.

The Committee recognizes that Kenya has a substantial infrastructure of institutions and human talent which provides education and training at many levels and for a wide cross-section of the people. These institutions are, however, characterized by a lack of co-ordination and communication between the different responsible agencies which include at least fifteen different Government Ministries. As a result there is a disjunction between the formal system and facilities for on-the-job, continuing, vocational, sandwich and many other forms of non-formal education and training. Students have difficulty in moving between different levels of training or between parallel institutions, even those operating in the same area of training. There is a variety of examinations and examining bodies with little standardization between them.

The Committee therefore urges that during the next two years a review should be carried out in the areas where these problems exist with a view to pointing out the way in which co-ordination could be used to increase the effectiveness by which limited resources can be applied to priority areas.

Formal education provides the baseline of the abilities to read, write and numerate. It must be seen, however, as an integral part of a process of life-long education and training which is necessary for increasingly effective and efficient productivity of every human being. In a developing country like

Kenya, this productivity of her human resources determines very closely the effectiveness of social and economic activities in promoting overall national development. In particular, the productivity of rural populations must be seen as an increasingly vital requirement for enabling the country to generate wealth and utilize resources to enhance its economic and social development.

In Kenya, most of the formal education system falls under the Ministry of Education. Most of the activities of non-formal education and training come under several different Government Ministries and private organizations. In order to facilitate an integrated approach to productive activities and development programmes, the Committee has come to the conclusion that the planning and implementation of all the programmes of formal and non-formal education and training must be carried out in a closely co-ordinated manner.

The Committee would like to illustrate the need for co-ordination with the simple case of nutrition which is one of the basic requirements for enhancing the quality of life of the people. To achieve adequate levels of nutrition the people have to be able to grow adequate amounts of food which must then be harvested, transported and stored adequately to avoid loss from such agents as dampness, insects and rodents. In spite of the fact that food is an essential commodity in life and that malnutrition continues to be a problem in the country, the Committee notes with concern that up to 30 per cent of harvested grain in the rural areas continues to be lost through these agents mainly because of the inability of the people there to deal effectively with such problems as storage. It is the view of the Committee that an integrated approach to the mass education of the people about all these factors is essential in dealing with the problems related to nutrition.

One of the agricultural goals stated in the 1974 to 1978 Development Plan is *"to improve the standards of nutrition in the rural areas"*. There is, however, no mention of how this will be achieved, especially as regards the mass education of the people about nutrition. Such a programme of nutritional education would have to be co-ordinated with similar programmes carried out under health, adult education, social services and so on. One of the reasons for lack of a clear definition of the nutritional education programme would appear to be heavy orientation of agricultural development towards production for primary economic purposes. While there is nothing wrong with this approach, there is little concern in enabling the people to make better use of the food produced. In addition, restrictive legislation on movement of essential foodstuffs also need to be reviewed in the interests of better distribution to ensure that the food reaches those who need it most.

The Committee would therefore like to see the Ministry of Agriculture being more involved in public education and promotion of legislation aimed at facilitating improved nutrition of rural populations in co-ordination with other Ministries.

A lot of nutrition work is carried out by the Ministry of Housing and Social Services. As described in the Development Plan (1974 to 1978), one of the Ministry's objectives is the *"continuation of education courses for day-care centre teachers, women's leaders and mothers"*. The Ministry has a food delivery and supervisory service for providing high-protein supplementary food in the existing day-care centres in the country's remote areas with a view to accounting for 80 per cent of the most needy pre-school children in these areas.

This is a very important programme in a country where malnutrition is common among the poor and ignorant populations. In its severe form of kwashiorkor, malnutrition can cause intellectual and physical handicap that makes it difficult for a child to benefit from primary education. Yet the Development Plan (1974 to 1978) does not mention whether or not these programmes of the Ministry of Housing and Social Services are co-ordinated with any extension work of the Ministry of Agriculture or Ministry of Health by which the rural populations are reached. Yet the three Ministries could be serving the same members of a family and community whose problems come in an inter-related fashion and therefore require a co-ordinated or even integrated approach. The Committee was made to understand that there was in fact quite a lot of unnecessary duplication of effort between the different types of extension workers in agriculture and those in health and adult education. The Committee would like to see all these activities being effectively co-ordinated so that they can reinforce one another and remove the current tendency to confuse the rural audiences that they are supposed to serve.

The Ministry of Health runs nutrition training at Karen College and the Ministry of Education runs catering training at the Kenya Polytechnic and nutrition education at the Kenyatta University College.

It is because of this multiplicity of activities that the Committee welcomes the proposal made in the Development Plan (1974 to 1978) to set up a National Food and Nutrition Council which will be concerned with ensuring that the whole population has an adequate diet. The Government recognizes that the success of the council's programmes will depend on integrated planning and co-ordinated implementation. The Committee endorses this observation very strongly.

The Council is expected to have regard to production, storage, marketing and distribution of foodstuff, food technology, improvement and control of nutritive quality, school and workers feeding programme, nutrition education and research. This would be aimed at improvement of nutrition through co-ordinated national action and for reviewing policies and component programmes. The Committee urges that the National Food and Nutrition Council to set up as a matter of urgency to co-ordinate the multiplicity of nutritional educational programmes in the country. The Committee would,

however, like to reiterate that, although the Council is being set up under the Ministry of Health for administrative reasons, it must be viewed and enabled to operate as a truly co-ordinated national body rather than as a departmental arm of the Ministry of Health alone.

The Committee would also like to use another simple illustration in a field related to nutrition, namely meat inspection. For a long time in Kenya the training of meat inspectors has been a speciality of the health inspectors' qualification run under the Ministry of Health. Their work has been aimed at ensuring that the meat consumed in the country is of a high quality. They have operated under the authority of the Public Health Act. Meat which is meant for export has normally, however, been the responsibility of the Ministry of Agriculture. In 1973 a new Meat Inspection Act was passed and, for all practical purposes, transferred the responsibility of all meat inspection to the Ministry of Agriculture. Furthermore, instead of co-ordinating this development with the existing programmes of training, the Ministry of Agriculture started their own meat inspection training. This was a six months special course at Athi River given to those who had completed their two-year training at the Animal Health and Industry Training Institute (AHITI).

The result of this unco-ordinated training and subsequent recruitment of meat inspectors was the creation of serious loopholes which the butchers exploited fully to achieve greater sales. The result was that the consumer was getting meat which had been poorly inspected or not inspected at all. Some of the butchers were intercepted by the more experienced health inspectors and shown to be distributing infected meat. When taken to court they showed certificates that had been issued by the new meat inspectors or those stamped with forged stamps. The magistrates had difficulty in knowing which lot of health inspectors to believe and tended therefore to sympathize with the butchers. As a result the butchers exploited the situation even further. Although this problem has subsequently been sorted out, it could have been anticipated and prevented by co-ordinated planning, integrated implementation and mutual recognition of expertise which exists in the Government machinery as a whole. But of immediate concern is the continued lack of co-ordination of the training in this and related fields as carried out in the Ministry of Health and the Ministry of Agriculture.

These are simple illustrations of some of the problems resulting from lack of co-ordinated Government planning. As far as the different Government Ministries are concerned, the Committee did not have the time to go into the details of all their respective training programmes. The Committee was made to understand that the fee and financing structures varied widely. It will be necessary to review them during the next two years or so with a view to working out a reasonably co-ordinated or even unified system. The following is therefore a very brief summary of some of the highlights of education and training activities of various Government Ministries.

### 16.1.1 Office of the President

The Kenya Institute of Administration (KIA) has been doing a good job of retraining persons in public service since it was started in 1961. The Institute had been in existence as the Jeanes School since 1924 offering various forms of adult education.

As stated elsewhere in this report, the retraining programmes offered at the KIA have been very useful for the personnel that they have been aimed at. The Committee was, however, made to understand that many of the more senior personnel often look down upon the training received by the more junior personnel. An attitude also seems to have developed among the senior public service personnel that continuing education and retraining is only meant for the junior people. Yet it is the knowledge, skills and attitudes of the senior people which determine the direction of the tasks performed by all those under them. The Committee therefore urges that the principle of lifelong continuing education and retraining be made mandatory for the senior public servants who are entrusted with the complex responsibilities of guiding national programmes. The Committee would also like to emphasize that it is to these senior people that the public look for guidance regarding the kinds of values that the society should adopt and uphold.

### 16.1.2 Agriculture

Very high priority is given to the training for extension programmes which are aimed at helping the farming community to take up better agricultural methods. The teaching of new methods is expected to enable farmers to intensify production, plant new crops, use improved seeds, fertilizers, and insecticides, employ better methods of cultivation and adopt improved veterinary services.

The Committee would like to see much greater co-ordination of this work with similar public education activities in health, adult education, social services, co-operative development and so on with a view to making them mutually supportive. It is the strong view of the Committee that this approach is going to be essential in enabling the poor people in rural areas to increase their productive capacity. The co-ordinated extension programmes should therefore also be made to reach poor rural small-scale farmers and not just the successful farmers as is the case.

### 16.1.3 Attorney-General's Office

The Committee was made to understand that graduates of law were already beginning to experience difficulty in getting employment. There is therefore need for co-ordination between the employers, Kenya School of Law and the Faculty of Law at the University of Nairobi. This problem is similar to that being experienced by graduates of arts in particular. The Committee urges

that an urgent review be carried out by the proposed Higher Education Commission on this and related problems.

### 16.1.4 Commerce and Industry

The ultimate aim of training is to improve the conditions of the masses with particular reference to their purchasing power. The Committee was made to understand that the growth of small-scale business was fundamental to rural development. Yet this type of business had traditionally been assumed to be suitable for the less educated persons. As a result very little research has been carried out to enable Government to meet the needs of rural populations adequately, especially as this is a major area for self-employment. The Committee would like to suggest that the long-established, enormous and practical experience of the informal sector be made use of to provide a baseline for some of the desired developments in small-scale business training.

The Committee was made to understand that the available training programmes and facilities were inadequate. It was also made evident that a great deal remained to be done to improve training in the field of foreign trade, including informing the farmers where their products go. In view of the importance of small-scale business in the country, the Committee urges that every effort should be put into improving the education of business operators and attracting educated people into full-time business. The Committee would also like to see these programmes being co-ordinated with those of integrated rural development.

### 16.1.5 Co-operative Development

One of the main mechanisms of facilitating social and economic development in rural areas is the co-operative movement. Education and training programmes form a key element in the strategy for developing the co-operatives. Most of the education and training programmes are based at the Co-operative College of Kenya at Langata. Their main emphasis has been teaching the staff of the co-operative societies about administration, bookkeeping and management. The College also operates correspondence courses and short courses for co-operative society committee members. The Committee has proposed elsewhere in this report that this programme should be intensified to cover more people in the rural areas, with special reference to the poor people with a view to finding ways of alleviating their poverty.

The most active co-operatives are in the areas where agricultural activities predominate. The Committee endorses the concentration of the effort of the co-operative movement in mass education but proposes that every effort should be made to serve those areas and communities that have not been served. Furthermore, co-operative education programmes should be more closely co-ordinated with those of agriculture, small-scale business and the integrated rural development programme.

### 16.1.6 Foreign Affairs

In order to survive in agriculture, international relations, commerce, technology and so on, Kenya must interact with the rest of mankind. Never before had nations become so interdependent. To meet this situation the education system is expected to produce people who are aware of the world around them and who are able to interpret what goes on in other countries. It is in achieving this objective that the education system is also expected to make people aware of the national interests and priorities of other countries in order to equip them with the knowledge they need to safeguard their national interests and priorities against those of other countries.

At Independence Kenya took over the responsibility of developing all these international relations in the interests of the people of Kenya while previously these relations served primarily the colonial interests. It is the view of the Committee that the education system must enable the people of Kenya to be more aware of these relations. In trying to do so, the education system must first ensure that it produces people who know their own country thoroughly in terms of its geography, history, economy, culture, commerce and industry, agriculture, and the environment in general in order to acquire an insight into the immediate and long-term national interests and priorities.

In view of the foregoing, the Committee would like to see much closer harmonization between the system of education and training with the needs for maintaining good international relations.

### 16.1.7 Health

This is a large service Ministry whose programmes such as those of public health, nutrition and health education are of such social importance that the Committee would like to see them planned and implemented in close co-ordination with those of agriculture, social services, adult education, irrigation schemes and so on. Since good health is a prerequisite of all the activities of national development, the training of health personnel must of necessity be based on an increasingly integrated and inter-disciplinary team approach both with the profession and in relation other social and economic activities. The Committee urges that the necessary co-ordination be affected in this regard.

### 16.1.8 Home Affairs

The attention of the Committee was drawn to the reported general rise in crime in the country. It is the view of the Committee that the education system must concern itself with the promotion of values and attitudes that will in the long run reduce the incidence of socially disruptive activities and facilitate productive activities. In the meantime the Committee notes with satisfaction the efforts being made to detect and rehabilitate criminals.

### 16.1.9 Housing and Social Services

Apart from housing, this Ministry has a variety of programmes for social development which include community development, adult education, social welfare, youth development, vocational rehabilitation, cultural programmes, sports, handicrafts and so on. Many of these programmes are aimed at improving the quality of life of the individual and community based on African culture. They are all programmes in which many other disciplines like health, education and training, nutrition, agriculture, and many others interact. Because of this the Committee notes with concern the lack of the necessary co-ordination with other Ministries and urges that this be developed.

### 16.1.10 Information and Broadcasting

The Committee was primarily concerned with the role of the Ministry as an educational instrument as opposed to entertainment. This was recognized as an increasingly important role of the Ministry in view of the need to reach larger numbers of people in rural areas. Although the Ministry was doing a lot through such programmes as the school broadcasting and correspondence courses for co-operative and secondary education, a great deal remained to be done, especially through the use of integrated programmed knowledge and materials.

In this regard the Committee notes with concern that a few Ministries are proposing to set up their own mass media centres and would like to emphasize that one fully equipped and staffed media centre will be of greater effectiveness and economical value for a wider variety of educational programmes than a multiplicity of unco-ordinated small media centres. The Committee would like to see every effort being put into co-ordinating these media centres.

In the meantime the Committee would also like to emphasize the need to intensify the training and recruitment of engineers, technicians and production personnel in adequate numbers to facilitate the work of the Ministry of Information and Broadcasting in mass education.

### 16.1.11 Labour

This is the Ministry that has the responsibility of dealing with the problems of unemployment in the country. In view of the rising levels of unemployment of people with education and training, there is need for closer co-ordination between the work of the Ministry and programmes of education and training on the one hand, and employment opportunities on the other. Furthermore, in view of the fact that a large part of the Ministry's effort is taken up with problems of industrial training for the modern sector, it is the view of the Committee that only through a co-ordinated approach will the Government effort as a whole be productively utilized in job creation, especially in areas that do not normally fall under the modern sector. The

Committee notes with satisfaction the successes of the National Youth Service in job creation and in motivating and training youth for a life of disciplined self-reliance.

### 16.1.12 Natural Resources

Forests are one of the most important natural resources in Kenya's well preserved environment. Forest rangers have been trained at the Forest Training School at Londiani. A number of general and specialized graduates have also trained in forestry, with particular reference to its economics, marketing, pathology, utilization, silviculture, entomology, wood technology and timber studies. The Committee was made to understand, however, that the training of these more senior grades of personnel has been carried out largely outside Kenya. The Committee would therefore like to see the national importance of forest resources reflected in the establishment of training programmes in the local institutions and in close co-ordination with those of agriculture, related industries and environmental conservation.

In the mining department the Committee was made to understand that the Ministry has been costing post-graduate students at the rate of K£4,500 per year per student to go overseas. Post-graduate training at the University of Nairobi is costed at K£1,500 per year per student. In view of the increasing importance of mining in national development, the Committee proposes that every effort should be put into developing the training and research facilities locally in the national institutions of higher learning. This should be done in close co-ordination with existing programmes in geology, engineering, surveying, physics, chemistry and so on.

### 16.1.13 Power and Communications

In the field of power, the Committee would like to emphasize that the availability of ordinary forms of fuel, particularly in some of the rural and urban areas, was becoming a very real problem. Finding alternative and cheap forms of energy is therefore one of the biggest challenges for science and technology and the related activities of education and training.

In the field of communications, the Committee would like to see more effort being put into providing continuing education and retraining for receptionists/telephonists, transporters and others with a view to increasing their ability to provide services that facilitate good human relations.

### 16.1.14 Tourism and Wildlife

One of the most unique heritages of the country is its wildlife. The conservation of wildlife represents one of the planned uses of land in Kenya which is done in competition with agriculture, forestry and other forms of land utilization. The Committee would, however, like to point out that the

public in general have not yet been adequately educated about the value of conservation. The Committee would therefore like to see much more public education on conservation which must in turn be closely co-ordinated with agriculture, natural resources, social services and others.

16.1.15 WORKS

The Committee would like to see the public facilities under this Ministry being co-ordinated, developed and made available for middle and higher levels of training of engineers and technicians. The Committee has proposed elsewhere in this report that this will be the most effective way of dealing with problems that have arisen in various aspects of industrial training. In view of shortages of engineers and the increasingly integrated approach to rural development, the Committee would also like to see more co-ordination between health engineering, agricultural engineering and civil engineering.

From the foregoing brief summary the Committee is convinced that a real case has been made for establishing an effective national machinery in the Ministry of Finance and Planning for co-ordinating the multiplicity of education and training activities in the country, both in Government and in private organizations.

The machinery will also be expected to continually monitor and evaluate the success with which these programmes are being implemented, with special reference to their relevance to national development needs. It is the view of the Committee that apart from lack of co-ordination, one of the biggest gaps in the system of planning and management of education and training activities in the country has been the lack of such an evaluation system at the national level.

Evaluation is an operational programme which should ideally be an integral part of information feedback and forward planning in continuous relation to the desired objectives of education and training. Evaluation must take place within the education system and cannot be effective in improving the educational programmes if it is carried out as an isolated event.

In making their recommendations, previous education commissions have made evaluations of education systems prevailing at the time. The commissions have also recommended the kind of goals that should be achieved thereafter. The effectiveness of their recommendations, has, however, tended to be diminished by lack of continuous evaluation as an integral part of the planning and development of education and training.

As such therefore evaluation must be linked to all the decision making units of the system and management of education and training if it is to be an effective control measure. It should enable the decision makers to manipulate inputs on the system as a whole. Feedback of information must come from all parts and levels of the system of education and training because it

is the conditions prevailing there that determine very largely the ability of the system to achieve the desired goals.

Evaluation must deal with projections into the future of the social, economic and cultural conditions of the environment within which the system of education and training operates. Where necessary evaluation should suggest the changes considered to be appropriate.

Evaluation must also take the time factor into consideration in setting the goals to be achieved in order to facilitate control of the system. The time factor should aim at showing how soon progress or lack of it needs to be demonstrated and to whom. In order to facilitate the necessary progress there must be a continuing feedback of information, supported by adequate documentation in relation to the day-to-day programme activity. Apart from taking the time factor into consideration, channels for feedback of information to those who require it must be worked out beforehand.

An evaluation must deal with the real objectives of the system stated in economic, political, educational and social terms. If this is not done the findings will have little relevance to the problems to be solved by decision makers.

Evaluation must be carried out on a multidisciplinary team basis and must be aimed at responding to many interests. It must recognize that the large numbers of individuals and groups concerned with the operation of the system of education and training have judgments which have a bearing on the effectiveness of the programme and that at any one time they may each be seeking and using different information.

From the foregoing it is evident that evaluation must be planned along with the planning of the objectives and programmes of the system of education and training, taking into special consideration whatever unique requirements and constraints prevail. For example, in a country like Kenya there is the paradox of unemployment of educated people while many aspects of national development are hampered by lack of people with the required attitudes, skills and knowledge. In view of the rapidly changing social and economic features of the country, the education system must be flexible enough to be able to continually respond by producing people with relevant attributes. This can only be achieved through continuous evaluation using such methods as review of records, observation of performance of the programmes and products of education and training and interviewing a cross-section of the public. Without such an evaluation system it will not be possible to detect problems in the system early enough to do something about them or to detect successes which need to be facilitated.

In the following sections the Committee makes recommendations for setting up a national machinery for co-ordination, monitoring and continuous evaluation of education and training activities, and for some of the immediate follow up work.

## 16.2 Goals and Programmes of Action

### 16.2.1 National Co-ordination of Education and Training

The Committee did not have the time to go into all the programmes of training carried out by all the Government Ministries. The multiplicity of these programmes and the wide variety of fee and financing structures can only be dealt with over a much longer period. In the meantime the Committee very strongly proposes strengthening the planning department of the Ministry of Finance and Planning and giving it the necessary authority to control and co-ordinate the allocation of funds to education and training programmes according to carefully worked out priorities in order to avoid unnecessary duplication and wastage of resources.

*Recommendation* 319

*To strengthen and modify the Planning Department of the Ministry of Finance and Planning for evaluation, monitoring and financial co-ordination and control of all programmes in education and training in relation to national development needs and goals, including manpower requirements and to serve as a clearing-house for all programmes in education and training and to be responsible for the allocation of all relevant resources, including those from outside according to priorities based on an overall assessment of national needs.*

*Recommendation* 320

*To secure a more effective co-ordination of the services and activities of the different Ministries under the financial co-ordination function of the Ministry of Finance and Planning and the academic co-ordination function of Kenya National Examinations Council.*

*Recommendation* 321

*To co-ordinate and formulate education and training in conception and practice so that they are treated as part of a single process aiming at development of productive work skills.*

*Recommendation* 322

*To give authority to the co-ordinating unit in the Ministry of Finance and Planning to decide on overall financial allocations between Ministries in relation to the national training needs.*

### 16.2.2 Information on Educational and Training Institutions

The proposed co-ordination machinery of the Government will need continuous feedback information on educational and training institutions and programmes. There must be continuous evaluation and feedback information to see if the objectives laid down are being achieved.

*Recommendation* 323

*To carry out an immediate survey of all educational and training institutions to bring together information on courses available, entry standards and examinations taken and approximate numbers of students involved.*

*Recommendation* 324

*To publish an Annual Year Book of Technical Education and Industrial Training as a base for improved co-ordination.*

### 16.2.3 Standing Committee on Education and Training

A standing committee on education and training will be required during the next two years to facilitate the implementation of the recommendations made in this report. The committee will be expected to take in-depth studies of the issues involved and provide an advisory service to the Government.

This need was recognized by the Government in the 1973 Sessional Paper No. 10 on Employment in which the Government planned "*. . . the creation of an interministerial committee for the co-ordination and monitoring of all programmes concerned with education, training and manpower. . . . The Ministry of Finance and Planning will provide the committee with a secretariat.*" The Committee understands that the proposed interministerial committee has not been set up.

It is therefore proposed that the present National Committee on Educational Objectives and Policies be made to continue functioning for this purpose during the next two years and, if found necessary, remain as a permanent standing committee. The following recommendation is made in this regard.

*Recommendation* 325

*To extend the National Committee on Educational Objectives and Policies for two years to do follow up supporting work which will be necessary in implementing the recommended educational and training goals and programmes of action.*

## CHAPTER 17—RESOURCES FOR EDUCATION AND TRAINING

### 17.1 Evaluation

The achievement of the objectives of education and training requires adequate provision of human resources, technical and other physical facilities as well as the funds which are necessary to finance the acquisition of all these essential requirements. Like any other developing country, Kenya continues to experience relative shortages of the resources that are required to meet all national development needs. The resources that the country possesses must therefore be utilized to maximum benefit. This will in turn require close co-ordination of Government planning as proposed elsewhere in this report. The Committee reiterates that without effective co-ordination within Government there is every likelihood that scarce resources will be wasted through duplication of effort and possible neglect of priority areas of national importance.

With regard to educational personnel the Committee has emphasized the importance of improving teacher education, expanding and strengthening various sections concerned with the management and co-ordination of education and training. The Committee reiterates the importance of continuing to improve the knowledge, skills and attitudes of all educational personnel and of the public in general if the youth in their care are to acquire the most desirable attributes for a productive life. Deterioration of discipline in the education system and negative attitudes to manual work are seen by the Committee as real setbacks to the effectiveness of education in national development.

With regard to technical and physical facilities, the Committee has pointed out the need for the production of educational materials that are culturally relevant, reasonably cheap and expeditiously delivered to those who need them. The Committee also reiterates its concern about the enormous backlog of expenditure on maintenance of secondary school buildings and other physical facilities many of which have deteriorated badly. The Committee has also emphasized the need to improve the basic equipment supplied to schools for mathematics, sciences, and pre-vocational subjects. This need is of particular urgency in regard to harambee secondary schools.

All these matters are dealt with in greater detail in the relevant chapters of this report. This chapter attempts to bring together and highlight the financial implications of the recommendations that have been made in this report. This has been done according to the requirements of the terms of reference to ensure that public recurrent expenditure on education does not grow more rapidly than the Government's recurrent budget. This has meant

holding education expenditure at about its present level of 28 per cent of the national recurrent budget. The Committee was advised that, to remain within these financial constraints, its recommendations should involve a rate of growth of Government recurrent expenditure on education of no more than 7 per cent a year in real terms after allowing for inflation. This assessment by the Ministry of Finance and Planning took full account of Kenya's recent economic difficulties arising from the oil crisis and world inflation, and the prospect of a more favourable economic environment in the late 1970's and early 1980's. The financial constraints have severely restricted the Committee's options in its search for the best possible education system for Kenya's present stage of development. Nevertheless, the Committee has tried to keep within these financial constraints.

Restriction on access to education for Africans was characteristic of colonial educational policy. Consequently at Independence there were serious shortages of indigenous high and middle level manpower. For these and other reasons the post-Independence Government gave high priority to the expansion of educational opportunities for Africans. It sought both to fulfil the KANU Party Manifesto pledge to provide universal primary education, and to educate and train Kenyans to take over all posts held by non-citizens. An impression of the education explosion which followed Independence can be gained from the following table, which shows the enrolments for the years 1963 and 1975.

TABLE 17.1—GROWTH OF EDUCATIONAL ENROLMENTS, 1963 AND 1975

| | Enrolments 1963 | Enrolments 1975 | Average Annual Raet of Growth p.a. |
|---|---|---|---|
| Primary Education .. .. .. .. | 892,000 | 2,881,000 | 10% |
| Secondary Education— | | | |
| (i) Aided .. .. .. .. .. | 23,200 | 106,300 | 13½% |
| (ii) Unaided .. .. .. .. | 7,000 | 111,100 | 26% |
| University .. .. .. .. .. | 370 | 5,140 | 24½% |
| Teacher Education .. .. .. .. | 4,610 | 9,510 | 6% |
| | 927,000 | 3,113,000 | 10½% |

**Source:** Ministry of Education.

NOTES:—(*a*) Enrolments on technical education courses are excluded from Table 17.1 because available data is incomplete.

(*b*) University enrolments in Table 17.1 comprise Kenyans enrolled at East African universities only.

As a consequence of the rapid growth of enrolments following Independence, Government expenditure on education likewise increased rapidly, and education's share of the Government recurrent budget also increased, as is indicated by Table 17.2. By 1974/5 the Ministry of Education was consuming almost 30 per cent of the budget. According to World Bank estimates, education's share of the budget in Kenya was among the highest in the world, perhaps the highest.

TABLE 17.2—APPROVED GOVERNMENT EXPENDITURE (NET) ON EDUCATION AS A PERCENTAGE OF TOTAL GOVERNMENT EXPENDITURE, 1963/64 TO 1976/77, IN K£ MILLIONS

| | (A) Net Recurrent Expenditure on Education | (B) Total Government Expenditure | (A) as Percentage of (B) |
|---|---|---|---|
| 1963/64 .. .. .. .. .. .. | 8·3 | 42·6 | 19% |
| 1964/65 .. .. .. .. .. .. | 5·2 | 44·8 | 12% |
| 1965/66 .. .. .. .. .. .. | 6·8 | 49·7 | 14% |
| 1966/67 .. .. .. .. .. .. | 6·5 | 54·6 | 12% |
| 1967/68 .. .. .. .. .. .. | 7·6 | 58·8 | 13% |
| 1968/69 .. .. .. .. .. .. | 8·6 | 61·3 | 14% |
| 1969/70 .. .. .. .. .. .. | 15·7 | 73·9 | 21% |
| 1970/71 .. .. .. .. .. .. | 25·4 | 92·5 | 27% |
| 1971/72 .. .. .. .. .. .. | 31·3 | 109·5 | 29% |
| 1972/73 .. .. .. .. .. .. | 37·1 | 121·8 | 30% |
| 1973/74 .. .. .. .. .. .. | 38·9 | 146·1 | 27% |
| 1974/75 .. .. .. .. .. .. | 54·2 | 186·5 | 29% |
| 1975/76 .. .. .. .. .. .. | 64·6 | 228·6 | 28% |
| 1976/77 .. .. .. .. .. .. | 72·7 | 248·3 | 28% |

**Source:** Ministry of Finance and Planning.

NOTES:—(*a*) The totals in Table 17.2 are at current prices. They are not adjusted for inflation.

(*b*) Figures are not comparable for all years. For instance, in 1970 the Centr a Government took over responsibility for financing primary education from County Councils.

(*c*) Figures for 1976/77 are Revised Estimates.

Although there are difficulties in comparing data from year-to-year, the trend of education's share of the Government budget has been strongly upward. At Independence it was less than 20 per cent. Today it is nearly 30 per cent. Within the Ministry of Education budget, expenditure is distributed as shown in Table 17.3.

TABLE 17.3—MINISTRY OF EDUCATION ESTIMATES OF RECURRENT EXPENDITURE, 1976/77

| Education Section | Net Expenditure in K£'s | Percentage of Total |
|---|---|---|
| Administration, Planning .. | 2,689,000 | 3·8% |
| Primary Education .. .. | 45,502,000 | 65·2% |
| Secondary Education .. .. | 9,936,000 | 14·2% |
| Technical Education .. .. | 899,000 | 1·3% |
| Teacher Education .. .. | 2,576,000 | 3·7% |
| Education for Handicapped .. | 284,000 | 0·4% |
| Polytechnic Education .. .. | 1,049,000 | 1·5% |
| Higher Education .. .. | 6,343,000 | 9·1% |
| Miscellaneous .. .. .. | 563,000 | 0·8% |
| TOTAL .. .. | 69,840,000 | 100·0% |

**Source:** Republic of Kenya: 1976/77 Estimates of Recurrent Expenditure (unrevised).

NOTE:— Table 17.3 excludes expenditure on education by other Ministries, notably on primary education in municipalities and on adult education.

Total expenditure on education and training by all Ministries is indicated by Table 17.4.

Rapidly rising expenditure on education began to give cause for concern from the early 1970's. Early drafts of the education chapter of the National Development Plan for the years 1974 to 1978 highlighted the problem. Proposals for a modest expansion of educational opportunities were shown to be very expensive. To finance these programmes expenditure on education would have to grow much faster than Government revenue, with education's share of the total Government budget going on increasing. This could mean that the share of the budget allocated to Ministries other than Education for development tasks of critical importance might have to be reduced.

This growing concern over escalating expenditure on education led to the establishment of a joint Ministry of Education and Ministry of Finance and Planning Working Party on "Financing Education". This Working Party reported in November, 1974 and identified a number of causes of rapidly rising educational expenditure.

Firstly, there was the question of school enrolments. Since Independence primary sector enrolments had been rising by about 10 per cent a year, and enrolments in other education sectors at even faster rates (*see* Table 17.1 above).

TABLE 17.4—ESTIMATES OF RECURRENT EXPENDITURE ON EDUCATION AND TRAINING BY ALL MINISTRIES, 1976/77

| Ministry | Net Expenditure in K£'s | Percentage of Total |
|---|---|---|
| Education .. .. .. | 69,840,000 | 86·3% |
| Office of the President .. .. | 1,806,000 | 2·2% |
| Health .. .. .. .. | 1,476,000 | 1·8% |
| Agriculture .. .. .. | 1,154,000 | 1·4% |
| Labour .. .. .. .. | 1,040,000 | 1·3% |
| Home Affairs .. .. .. | 945,000 | 1·2% |
| Housing and Social Services .. | 636,000 | 0·8% |
| Works .. .. .. .. | 208,000 | 0·3% |
| Tourism and Wildlife .. .. | 168,000 | 0·2% |
| Natural Resources .. .. | 166,000 | 0·2% |
| Commerce and Industry .. | 148,000 | 0·2% |
| Information and Broadcasting .. | 138,000 | 0·2% |
| Co-operative Development .. | 92,000 | 0·1% |
| Office of the Attorney-General .. | 80,000 | 0·1% |
| Water Development .. .. | 41,000 | — |
| | 77,938,000 | |
| Local Government* .. .. | 3,000,000 | 3·7% |
| TOTAL, EDUCATION AND TRAINING (1) | 80,938,000 | 100·0% |
| TOTAL, ALL GOVERNMENT (2) | 248,348,000 | |
| (1) as percentage of (2) .. .. | 32·6% | |

**Source:** Republic of Kenya: 1976/77 Estimates of Recurrent Expenditure (unrevised).

NOTES:—(*a*) *The Ministry of Local Government made block grants to Local authorities (mainly municipalities) of over K£5 millions for 1976/77. The municipalities use part of these grants to finance primary education, and the figure of K£3 millions is a rough estimate of expenditure by municipalities on formal education.

(*b*) Table 17.4 gives only a rough estimate of expenditure by various Ministries on education and training.

In some cases it may be an overestimate, for example the Ministry of Labour, for which the entire National Youth Service budget is included. In other cases it may be an underestimate, for example the Ministry of Home Affairs, for which training of prisons inmates is excluded.

(*c*) If Consolidated Fund Services, mainly National Debt interest payments, are excluded from total Government recurrent expenditure then the share of the Government budget which is allocated to education and training amounts to 40%.

Secondly, there was the question of teachers' qualifications. In recent years teachers' qualifications have greatly improved. For example, at Independence the great majority of primary school teachers were P3's, whereas by the

middle 1970's the typical entrant to a teachers' college had had four years of secondary education and was therefore a potential P1 teacher. Also teachers had been encouraged to seek promotion from one grade to the next by studying for K.J.S.E., E.A.C.E. and so on. The level of qualifications of secondary level teachers has also been rising. The educational consequences of improved teachers' qualifications are, of course, highly beneficial. However, since teachers' salaries have been closely tied to their educational qualifications, the increases in expenditure have been considerable. Improved teachers' qualifications have thus been identified as a major factor in the escalation of expenditure on education.

Thirdly, there has been the question of teachers annual salary increments. Each year a qualified teacher receives a salary increment unless he has reached the maximum point on his salary scale. The overall effect of this incremental process is a significant addition to total expenditure on education.

Fourthly, there were revisions on teachers' salaries. The Report noted that another cause of increased educational expenditure had been the periodic award of salary increases to the teaching profession. Whatever may have happened during the country's economic difficulties of the last two or three years the teachers shared in the sacrifices which had to be made. It is still broadly true, however, that the level of incomes in Kenya has risen substantially since Independence, that teachers have shared in this increased prosperity through periodic salary adjustments, and that this has contributed to rising educational expenditure.

Lastly, there have been equipment and other costs. In the past increased school equipment, boarding and other grants-in-aid have not added significantly to educational expenditure. This is because until the 1970s the grants were not increased even to compensate schools for the effects of rising prices. These grants have recently been increased. But if the quality of Kenyan education is to be maintained, and if there is to be a shift of emphasis towards more applied subjects, then in the future these expenditure items must be further increased by substantial amounts.

Of the causes of rapidly rising educational expenditure identified by the Working Party, increased enrolments and improved teachers' qualifications were of paramount importance.

The Working Party laid particular emphasis on the serious economic consequences of continued escalation of expenditure on education. The development strategy of the country would be undermined. Sectors of the economy which are directly productive, which benefit the country's balance of payments and which create employment, especially the agricultural and industrial sectors of the economy, would be deprived of urgently needed resources. The money would be used instead to expand the amount of education for young people, increasing numbers of whom would not obtain worthwhile employment afterwards.

The Inter-Ministerial Working Party went on to advise that the rate of growth of expenditure on education should be reduced, and offered a number of alternative measures to this end. Eventually the Government adopted some of these measures, and they were outlined in Sessional Paper No. 4 of 1975 on Economic Prospects and Policies.

These measures were short-term, and were intended to provide a breathing-space during which fundamental reassessment of Kenya's education system could be instituted. This is what the National Committee on Educational Objectives and Policies is expected to achieve. As Table 17.2 shows, education expenditure has been brought under control since 1974/75 with the education's share of the budget being stabilized at 28 per cent. But pressure for further expansion is building up. The Committee has therefore had to identify priorities for educational development during the next ten to twenty years when the resources available for the expansion of education may be more limited than in the past.

## 17.2 Goals and Programmes of Action

### 17.2.1 The Financial Constraint

The Committee has worked within the financial constraints written into its Terms of Reference.

*Recommendation* 326

*To maintain the financial constraint imposed by the Government on the annual growth rate of recurrent expenditure on education.*

The Committee believes that at this stage of Kenya's development her most urgent need is for more income-earning opportunities for her people. This requires that in the allocation of the limited funds available to Government, those Ministries and those expenditure items which make a direct contribution to the creation of productive employment should be given the highest priority.

*Recommendation* 68

*To orientate national development towards employment generating areas to absorb the products of education.*

Expenditure of more resources on education on its own will not create employment opportunities, except for the employment of teachers. Hence educational expenditure should grow less rapidly than in the past, so that more money may be made available for the direct creation of jobs.

### 17.2.2 The Allocation of Resources within Education and Training

When money is scarce, the most careful consideration has to be given to priorities. Because of this constraint the Committee has concentrated its proposals on offering free primary education and a generally improved

system of education. Had sufficient resources been available, the Committee would have wholeheartedly recommended, apart from free primary education, a greatly enlarged and improved education system, offering universal basic education, and access to secondary, university and technical education to all those able to benefit from them. Instead, because resources will be limited, the Committee has, to the best of its ability, sought to identify those sectors of the education system which should be given the highest priority during the next decade or so, taking into account the following considerations:

Firstly, an education system which seeks to promote national unity must be, and must be seen to be, equitable in the opportunities it offers. To be equitable an education system must begin by offering access to primary education to every child.

Secondly, Kenya subscribes to the right of everyone, child or adult, to a basic education. Lack of resources alone has prevented the Government from putting the principle into practice. Clearly universal and free primary education is a major step in the right direction.

Thirdly, many of the urgent high and middle level manpower requirements which were so apparent at Independence have now been met. Many secondary school and even some university leavers are experiencing difficulty in finding modern sector employment. On the other hand, there are still a number of jobs with a science/technology base where there are further opportunities for qualified Kenyans. Nevertheless, for the great majority of school-leavers of the future, self-employment, mainly in the rural areas, offers the best hope for earning incomes. Considerations such as these influenced the Committee in its search for educational priorities.

Fourthly, the Committee took the view that vocational training directed at preparing young people for specific jobs was not the task of the formal school system. But the Committee attached high priority to post-school training programmes consistent with the development needs of the country.

Fifthly, although Kenya had achieved a remarkable growth of educational enrolments since Independence, the Committee gave consideration to the view that in some respects this achievement may have been at the expense of quality in education. It recognized that, since the most urgent post-Independence manpower needs of the country had been satisfied, there was a case for directing more resources towards raising educational standards. In particular the Committee noted the case for improving the quality of education through diversification of the curriculum.

The Committee weighed these and other considerations, in particular in relation to the issue of when and how the country should move to a nine-year basic education system and made the following recommendations.

*Recommendation* 327

*To ensure that budgeting, allocation of resources and control of expenditure are responsive to the needs of equity, relevance and quality of education and training.*

*Recommendation* 328

*To give priority to the basic education and teacher education programmes during the next decade.*

The Committee recognized that, as more resources become available for basic or primary education, the Government has broadly three choices as to how it may use them. It may seek to broaden opportunities by giving priority to the achievement of universal primary education; it may give priority to improving the quality of the present system; or it may give priority to extending basic education by, for instance, adding two years of junior secondary education for all who seek it. It is not suggested that these three priorities can be entirely separated. For instance, an improvement in the quality of education would encourage more parents to send their children to school, thereby facilitating the achievement of universality; also, too hasty an approach to a nine-year basic education system would threaten the quality of education, particularly if teachers were not trained in time. Nevertheless, inseparable though they may be, these three objectives for basic education can be phased as recommended below.

*Recommendation* 99

*To develop nine-year basic education in the following order: Firstly, achieve universal primary education; secondly, raise the quality of primary education by providing trained teachers and suitable instructional materials; and thirdly, lengthen the duration of universal basic education from seven to nine years.*

As has already been stated, the Committee does not consider it the job of the school system to give skill training for specific jobs. However, it attaches high priority to the provision of post-school training opportunities to meet the provision of post-school training opportunities to meet the country's development needs as recommended earlier.

*Recommendation* 44

*To ensure that in the allocation of resources priority is given to training programmes which ensure that the full range of skills required by the economy is provided, and that the necessary physical facilities for this purpose are established within the country.*

### 17.2.3 Basic Education

The order of priorities recommended earlier for the allocation of resources to basic education, namely, firstly, to move towards universal primary education of seven years duration, secondly, to raise the quality of primary

education, and thirdly, to lengthen the duration of universal basic education from seven to nine years, are further discussed here and relevant recommendations made.

17.2.3.1 *Universal Primary Education*

The Committee has made a number of recommendations designed to accelerate the country's progress towards universal primary education. A major step in the recent past was the Presidential Decree abolishing tuition fees for Primary 1 to 4 education. In order that fees from Primary 5 should not prevent children from attending school, the Committee recommends as follows.

*Recommendation* 329

*To accelerate the move towards implementation of the KANU and Government undertaking to make primary education universal, free and compulsory with a view to achieving equity for all.*

*Recommendation* 97

*To extend the removal of fees to the full seven years of primary education, as follows:—*

1978—*Remove fees from Primary* 5.
1979—*Remove fees from Primary* 6.
1980—*Remove fees from Primary* 7.

17.2.3.2 *The Quality of Primary Education*

Other relevant chapters make a number of recommendations designed to raise the quality of primary education. Those with significant financial implications include the ones dealing with—

materials for vernacular-medium teaching,
making Kiswahili a compulsory subject,
revision of Kenya Primary Mathematics course,
primary school science kits,
primary school libraries,
the teaching of agricultural sciences,
the teaching of pre-vocational subjects.

Partly with these recommendations in mind, the Committee draws attention to the urgent need for an increase in the per capita school equipment grant for primary schools.

*Recommendation* 330

*To increase substantially the per capita equipment grant to primary schools.*

The Committee has received convincing evidence that an immediate increase from Sh. 20 to Sh. 40 per pupil per year is essential to maintain

past levels of provision. Thereafter the grant should be kept under constant scrutiny, and should be raised in accordance with the needs of a developing basic education curriculum.

#### 17.2.3.3 *A Nine-year Basic Education System*

The Committee advocates a nine-year basic education open to all Kenyans. However, it believes that an additional two years of basic education should not be at the expense of universality or of quality. It therefore proposes that the development should be phased as finances and teachers become available. With respect to the former, the Committee reluctantly advocates the temporary imposition of school fees for the additional two years of basic education to be called Junior Secondary. With respect to the latter, the Committee has accepted the advice that the present primary teachers colleges are already fully stretched to provide teachers for Primary 1 to 7. Additional facilities will therefore have to be created for training Junior Secondary teachers. Furthermore, since it usually takes about three years to plan and build colleges, and another two or three years to train teachers, teachers for Junior Secondary schools are unlikely to be available in any numbers before about 1983. Even in 1983 it will be difficult to provide Junior Secondary education for all who seek it, so it might be a few more years before the system could become free and universal. Hence the Committee recommends a phased programme as follows.

*Recommendation* 100

*To implement a nine-year basic education open to all Kenyan children:—*

1983—*Establish Junior Secondary I at primary schools and abolish intake into Form I as part of secondary schools.*

*Establish fee-paying Junior Secondary I.*

1984—*Establish Junior Secondary II at primary schools and abolish intake into Form II as part of secondary schools.*

*Establish fee-paying Junior Secondary II.*

1985—*Last C.P.E. done Primary* 7.

1986—*C.P.E. to be changed into Primary Progressive Examination to serve as a basis for guiding and counselling all children into Junior Secondary education and expanded vocational training.*

### 17.2.4 Secondary Education

The Committee's recommendations for secondary education have been outlined in Chapter 7. It is proposed that there should be a continuous Senior Secondary course for selected students, beginning at the present Form III level. This will mean provision of adequate school equipment and other grants-in-aid once the requirements of a more diversified secondary level curriculum have been worked out.

*Recommendation* 331

*To provide the finances necessary for the implementation of the proposals for secondary education.*

A survey of Government secondary school buildings conducted in 1973 estimated that there was a backlog of essential requirements to the value of K£7 millions. The situation has not improved since then, and building prices have risen, so a sum of K£15 to K£20 millions would have to be spent on existing Government schools to rectify the situation. It will also be necessary to effect economies and efficiency in the utilization of expensive facilities.

*Recommendation* 332

*To rectify the present shortages of essential physical facilities in secondary schools.*

*Recommendation* 131

*To group schools together to share the use of expensive facilities and scarce specialist teachers.*

*Recommendation* 132

*To improve facilities for the teaching of mathematics and science.*

*Build more laboratories.*

*Provide special teaching rooms for mathematics.*

*Offer formal courses of training for school laboratory assistants.*

*Provide at least one such laboratory assistant for each secondary school and laboratory technicians for larger schools.*

*Increase the supply of locally made teaching aids.*

The Committee's recommendations on secondary harambee schools are included in Chapter 7. In this section we draw attention to recommendations which have important financial implications. When this programme is launched, many harambee secondary schools would be given the opportunity to be integrated with the Government sector, particularly as Junior Secondary schools.

*Recommendation* 51

*To integrate harambee secondary schools into the national education system.*

*Take over harambee schools to provide facilities for the reorganized Junior Secondary education.*

*Provide opportunities at the post-primary Junior Secondary level for those not offered places in Government schools.*

*Phase out the attachment of new harambee streams to aided schools.*

One further recommendation for secondary education which has significant financial implications is repeated here.

*Recommendation* 306

*To expand secondary school supervisory services which would offer stronger incentives to qualified citizen candidates.*

### 17.2.5 Special Education

The proposals for Special Education contained in Chapter 8 amount to a greatly expanded programme of education for handicapped children. The financial implications of this commitment cannot be assessed until the full extent of handicaps among Kenyan children is known. The financial implications of the following recommendations will have to be worked out.

*Recommendation* 167

*To expand existing amenities and establish additional services to enable handicapped children to be integrated into normal schools as far as possible.*

*Recommendation* 163

*To enable each handicapped child to possess basic individual literacy equipment.*

*Recommendation* 165

*To give a more realistic equipment grant to schools and colleges catering for the handicapped on the basis of the real needs of the particular types of handicap.*

*Recommendation* 161

*To establish additional services for children with multiple handicaps and to establish secondary schools for the deaf and additional ones for the blind in relation to primary school output.*

### 17.2.6 Technical Education and Training

The Committee considers that the system of financing technical education and training, and also the pattern of rewards for those with technical skills, should be the subject of a major review.

*Recommendation* 28

*To study the prevailing financing structure and incentive system related to all types of training.*

The review of incentives should be conducted within the context of the determination of a general incomes policy. With regard to the proposed review of the system of financing technical education and training, the Committee offers some guidelines, without wishing to pre-judge the results of the proposed review. The Committee believes that the provision of technical education will be seriously distorted if the Ministry of Education continues to pay most of the costs (for example, by subsidizing national polytechnic courses to the extent of 90 per cent of their costs). Those who

stand to gain from technical education and training should, the Committee believes, pay a bigger proportion of the costs. Those who stand to gain most, particularly where job-specific skill-training is involved, are employers and employees. It is, of course, true that the country as a whole also benefits from the technical education and training it provides, particularly when the economic benefits are more diffused and distant in time as in the case of science courses for technicians. Hence the costs of technical education and training should be shared.

*Recommendation* 333

*To meet the escalating cost of financing technical education and training through a co-ordinated joint obligation of the Government, private industry, the individual trainee and technical assistance.*

In the past it has proved difficult to persuade industry to provide a substantial proportion of the costs involved, for the very good reason that firms have justifiably argued that if they pay for training workers, rival firms can reap the benefits by offering the trainees marginally better wages. The recent introduction of industrial training levies was designed to overcome this problem. Firms within an industry requiring similarly trained workers pay into a central fund from which training costs can be claimed. The Committee favours the extension of this system.

*Recommendation* 334

*To use the National Industrial Training Scheme to finance an increasing proportion of technical education and training.*

The Committee has noted cases where personnel are sent overseas for training at very high cost despite the existence of, or the potential for developing equivalent training facilities in Kenya. Hence it makes the following recommendation.

*Recommendation* 335

*To establish and expand training facilities locally in the national institutions to reduce the level of dependence on training outside the country.*

### 17.2.7 University Level Education

Chapter 9 of this Report outlines the Committee's proposals for university level education. This section deals only with financial aspects. The Committee believes the present system of financing university education in Kenya to be unsatisfactory. It believes that it should be the subject of a major review.

*Recommendation* 336

*To review the financing of university education.*

For the future planning and financing of university level education, the Committee has endorsed the proposed establishment of a permanent Com-

mission on Higher Education. Also the Committee advocates the synchronization of university planning and national development planning, instead of annual planning related to the annual Government budget procedures. If resources were available, the Committee would have recommended a major expansion of university education in Kenya, but it considers that the highest priority during the next decade or so should be given to basic education. Hence the Committee proposes only modest expansion of university education.

*Recommendation* 178

*To create additional programmes at the University of Nairobi in scientific and technical fields not presently taught, such as mining engineering, chemical engineering, water engineering, marine and arid zone science and technology.*

In the long term the Committee proposes the development of Kenyatta University College towards an enrolment of 5,000 students in the next 10 to 20 years and the development of a third university institution thereafter.

### 17.2.8 Fees and Bursaries

Faced with both a severe financial constraint and a country-wide demand for a major expansion of the education system in the direction of nine-year basic education for all, the Committee was compelled to give consideration to increasing the contribution of fees to educational expenditure. There is some justification for increasing fees. The first reason is that there is something to be said for requiring all parents to make a contribution to the costs of educating their children, even if the contribution is a nominal amount. Hence the Committee favours such "non-fee" charges on parents as equipment levies and contributions to building funds.

*Recommendation* 337

*To help parents to be aware of their responsibilities in meeting certain non-fee costs of education.*

The second reason why the Committee considered adjustments of fees and other charges was that the real value of existing fee levels has fallen in recent years because of inflation. The third and most important reason, however, is that the Committee recognizes that, so far as the post-primary sectors are concerned, education and training vastly improves modern-sector employment opportunities whose eventual financial rewards justify the requirement that the beneficiaries should bear a part of the costs of their education. The argument applies, perhaps with more force, to vocational training. However, a fee-paying education and training system which makes no allowance for those who genuinely cannot afford to pay fees will be inequitable and will waste the talents of many gifted children from poor homes. Hence a fee-paying education system must also provide relief in the form of remissions

and bursaries for the needy. The Committee recommends fees as follows, according to 1976 prices:—

| | | |
|---|---|---|
| Primary Standards 1 to 7 ... | Sh. 10/- p.a. | D.E.B. Levy |
| | Sh. 30/- p.a. | Equipment Levy |
| Junior Secondary Forms I and II | Sh. 600/- p.a. | |
| Senior Secondary Forms III to VI | Sh. 800/- p.a. | day pupils |
| | Sh. 1,600/- p.a. | boarders |

The Committee advocates generous fees remissions for Junior Secondary pupils (at least 10 per cent) and a comprehensive bursary scheme for all pupils above this level.

*Recommendation* 338

*To institute a bursary fund for facilitating the education of deserving students on the basis of poverty.*

The Committee took the view that students should contribute more to the costs of training programmes outside the authority of the Ministry of Education, but did not feel competent to suggest precise fee levels. For students at national polytechnics a bursary scheme is required.

*Recommendation* 196

*To supplement recruitment of private and sponsored students through the provision of additional Government bursary awards.*

The programme the Committee proposes for handicapped children will require generous provision for fee remissions for poor families.

*Recommendation* 162

*To arrange for remission of fees where the family income is proved to be inadequate.*

### 17.2.9 Teachers

The quality of education depends above all on teachers, the contribution of teachers is affected by their morale, and their morale is related to their salaries and promotion opportunities. Hence the Committee attached great importance to terms of service for teachers. The Committee recognized that since Independence the teaching profession has shared both in the rising prosperity of the nation in the 1960's and early 1970's, and in the sacrifices of the middle 1970's. It sees no case for special treatment for the salaries of teachers in the future. Hence it recommends as follows.

*Recommendation* 339

*To determine the levels of salaries of teachers within the context of a general incomes policy and not in isolation from the wages and salaries of other people with comparable qualifications and responsibilities.*

The Committee also makes a number of specific recommendations, mentioned in earlier chapters, which relate to salaries. It supports the recent move by the Ministry of Education to grade primary school teachers not according to their educational qualifications before they begin their training, but on the basis also of their performance in teachers' colleges and on teaching practice.

*Recommendation* 231

*To categorize the primary teacher qualifications into four grades according to academic and professional performance during training in the Teachers Colleges and use these for determining entry points and maxima for each grade in a unified salary scale for all primary school teachers.*

The subject of teachers' promotions has given rise to controversy in recent months. The Committee endorses the recent stand of the Ministry of Education that promotion of primary teachers (and other teachers, for that matter) should not depend solely on academic criteria. The Committee has proposed elsewhere that there should be an increased emphasis on the quality of teachers and teacher education which should guide the principle of promotion on the grounds of professional merit, one element of which may be academic advancement. That there should be adequate opportunities for promotion is essential for high morale among teachers. The Committee attaches importance to the continuous assessment of the performance of all teachers.

*Recommendation* 232

*To promote primary school teachers on merit as well as on academic grounds. If a teacher passes an academic examination in relevant subjects the teacher should apply for inspection in order to verify the quality of his work.*

This machinery will require a considerable expansion of the primary school supervisory service. To enable the Inspectorate to carry out its duties satisfactorily, including those concerned with the promotion of teachers, a considerable expansion of the supervisory services will be necessary.

*Recommendation* 340

*To strengthen the Inspectorate both qualitatively and quantitatively.*

A satisfactory, comprehensive career pattern and scheme of service for all teachers should be the end result of these and other steps.

*Recommendation* 218

*To establish a scheme of service for educational personnel to define career patterns for all grades.*

So far as secondary level teachers are concerned, the Committee proposes a mainly graduate teaching force for Senior Secondary (Forms III to VI) Schools as the new education system is phased in.

*Recommendation* 236

*To recruit Senior Secondary School teachers mainly from university graduates.*

Promotion opportunities for secondary level teachers tend to take many of the most gifted teachers out of the classroom into administration of one form or another. Hence the Committee attaches great importance to offering more opportunities within classroom teaching.

*Recommendation* 221

*To offer promotion opportunities for teachers within the classroom, which should be equivalent to promotion opportunities of senior administrative grades within the educational service.*

Similarly the Committee recognizes the need for more promotion opportunities for teachers of the handicapped.

*Recommendation* 249

*To improve promotional opportunities for special education teachers within the teaching scales.*

In Chapter 12 the Committee stresses the importance of recruiting technical teachers not from school-leavers but from among those with work experience. This has implications for salaries of technical teachers.

*Recommendation* 251

*To recruit the best technical teachers in terms of academic and professional competence from people who have completed a normal apprenticeship, suitable training, educational qualification and work experience by offering adequate salary scales and prospects.*

The Committee also draws attention to need for a major revision of salaries of teachers at national polytechnics, so we repeat an earlier recommendation here.

*Recommendation* 198

*To establish realistic staff recruitment and staff development programmes supported by an upward revision of salary scales to enable the national polytechnics to fulfil their roles successfully.*

### 17.2.10 Other Recommendations with Financial Implications

Two other recommendations with significant financial implications are repeated here. Both relate to educational support services.

*Recommendation* 310

*To provide the necessary resources for the expansion of the Guidance and Counselling Service of the Ministry of Education as defined in the Development Plan* (1974 *to* 1978).

*Recommendation* 315

*To continue to enlarge and strengthen Curriculum Support Services (Examinations, Inspectorate, Kenya Institute of Education) with a view to enabling them to implement the proposed changes in education, including giving greater guidance to educational development at the institutional level and continually appraise teachers, heads of schools and their deputies.*

## 17.3 Educational Enrolments

The final section of this chapter projects to the mid-1980's the educational enrolments and Government recurrent expenditure on education implied by the Committee's recommendations.

(*a*) The continued growth of primary sector enrolments projected in Table 17.5 reflects population growth and an additional enrolment growth in districts which are still some way from achieving universal primary education. An enrolment plateau is projected for the early 1980s. This is attributable to the exceptional Primary 1 entrants of 1974 and 1975, who, except for early drop-outs, will be due to leave primary school in the early 1980s.

(*b*) As explained above, the nine-year basic education programme, comprising seven years of primary and two years of Junior Secondary education, will be phased in from 1983 as teachers and finance become available. In the early years not all Primary 7 pupils will be able to proceed to Form I.

(*c*) Eventually the Senior Secondary Sector (Forms III to VI) will enrol some 30,000 pupils a year (total 120,000), and will take over the present facilities (modified and expanded) of the present Government secondary schools. However, the years 1983 to 1986 will be a transitional period, during which

TABLE 17.5—PROJECTION OF EDUCATIONAL ENROLMENT, 1975 TO 1986

| | Primary (in millions) | Secondary | Teacher Education | Higher Education |
|---|---|---|---|---|
| 1975 .. .. .. | 2·88 | 106,000 | 8,600 | 5,400 |
| 1976 .. .. .. | 3·0 | 110,000 | 9,100 | 5,400 |
| 1977 .. .. .. | 3·15 | 119,000 | 9,300 | 5,400 |
| 1978 .. .. .. | 3·3 | 122,000 | 10,100 | 5,600 |
| 1979 .. .. .. | 3·45 | 122,000 | 11,000 | 5,800 |
| 1980 .. .. .. | 3·6 | 122,000 | 11,000 | 6,000 |
| 1981 .. .. .. | 3·6 | 122,000 | 12,000 | 6,000 |
| 1982 .. .. .. | 3·6 | 122,000 | 13,000 | 6,500 |
| 1983 .. .. .. | 3·65 | 170,000 | 14,000 | 7,000 |
| 1984 .. .. .. | 3·75 | 250,000 | 15,000 | 7,500 |
| 1985 .. .. .. | 3·9 | 300,000 | 16,000 | 8,000 |
| 1986 .. .. .. | 4·1 | 370,000 | 17,000 | 8,000 |
| Growth .. .. | 3½% p.a. | 12% p.a. | 6% p.a. | 3½% p.a. |

NOTE:— The proposed nine-year basic education system, comprising Primary Standard 1 to 7 and Junior Secondary Forms I and II, is programmed to begin in 1983.

some junior secondary classes will still occupy some of the present Government secondary school facilities. A major expansion of senior secondary education is proposed for the late 1980s after the transitional period.

Some of the assumptions which lie behind these projections are as follows:—

(*d*) The growth of teacher education enrolments projected in Table 17.5 includes the following programmes: Expansion of primary teachers' colleges enrolments to about 10,000 with I.D.A. assistance; building of new junior secondary teachers' colleges to enrol 6,000 students by 1986 with the proposed Kenya Technical Teachers' College, enrolling some 700 students.

(*e*) The Committee proposes that the main campus of the University of Nairobi should enrol about 5,000 students by the mid-1980s, and that Kenyatta University College enrolments should rise from 1,200 in 1976/7 to about 3,000 in the mid-1980s.

Table 17.6 projects Government recurrent expenditure on education for the programmes proposed by the Committee. The last column of the table expresses Government recurrent expenditure on education as a percentage of the total Government recurrent budget (net of appropriations-in-aid).

(*f*) Teachers for junior secondary education will be of mainly P1 or S1 status and salary levels. All pupils will attend school on a day basis (except during the transition period when some Junior Secondary classes will use existing secondary school facilities). There will be a stronger emphasis on applied subjects than in the past. Fees will be charged at the rate of Sh. 600 per pupil per annum.

TABLE 17.6—PROJECTION OF NET GOVERNMENT RECURRENT EXPENDITURE ON EDUCATION IN K£ MILLIONS AT CONSTANT 1976/77 COSTS

| | Primary | Secondary | Higher Education | All Other Sectors | (A) Education Total | (B) Government Total | (A) as % of (B) |
|---|---|---|---|---|---|---|---|
| 1975/76 .. .. | 41·8 | 9·3 | 6·6 | 6·6 | 64·6 | 229 | 28% |
| 1976/77 .. .. | 46·9 | 9·9 | 6·3 | 8·1 | 71·2 | 248 | 29% |
| 1977/78 .. .. | 50·1 | 9·8 | 8·9 | 8·6 | 77·4 | 265 | 29% |
| 1978/79 .. .. | 52·4 | 9·7 | 9·1 | 9·3 | 80·5 | 284 | 28% |
| 1979/80 .. .. | 56·9 | 10·2 | 9·3 | 10·5 | 86·9 | 304 | 29% |
| 1980/81 .. .. | 61·5 | 10·5 | 9·5 | 11·3 | 92·8 | 325 | 29% |
| 1981/82 .. .. | 65·1 | 11·0 | 9·5 | 12·3 | 97·9 | 348 | 28% |
| 1982/83 .. .. | 69·1 | 11·7 | 10·7 | 13·4 | 104·9 | 372 | 28% |
| 1983/84 .. .. | 73·2 | 12·7 | 12·0 | 14·7 | 112·6 | 398 | 28% |
| 1984/85 .. .. | 78·2 | 14·3 | 13·3 | 15·9 | 121·7 | 426 | 29% |
| 1985/86 .. .. | 84·7 | 16·3 | 14·8 | 17·3 | 133·1 | 456 | 29% |
| Growth .. .. | 7% p.a. | 6% p.a. | 8% p.a. | 9% p.a. | 7½% p.a. | 7½% p.a. | |

NOTE:— The proposed nine year basic education system, comprising Primary Standard 1 to 7 and Junior Secondary Forms I and II, is programmed to begin in 1983.

Some of the important assumptions which are behind Table 17.6 are listed as follows:—

(*g*) The primary School Equipment Grant will be raised to Sh. 40 per pupil per year from 1977/8. The great majority of untrained teachers will have been trained or replaced by the mid-1980s. School fees for Primary 5 to 7 will be phased out by 1980.

(*h*) By the mid-1980s the great majority of teachers in the Senior Secondary Sector will be graduates. There will be substantial increases in school equipment and boarding grants-in-aid. Approximately half of Senior Secondary Sector pupils will be boarders. Fees will be charged at the rates of Sh. 800 p.a. (day pupils) and Sh. 1,600 p.a. (boarders).

(*i*) From 1977/1978 those enrolled on Teacher Education courses will pay the same fees as Senior Secondary Sector pupils depending on Government decision regarding other training programmes.

(*j*) From 1977/78 there will be a major increase in the Government commitment to special education (from K£280,000 recurrent expenditure estimated for 1976/77 to K£1.3 millions in 1985/86).

(*k*) Enrolments in the National Polytechnics will grow at about 5 per cent p.a. and Government recurrent expenditure by about 8 per cent p.a.

(*l*) After the completion of Nyeri Technical School there will be no further expansion of secondary technical education.

(*m*) There will be a modest but growing Government contribution to the recurrent finances of the institutes of technology.

(*n*) The Kenya Technical Teachers' College will be developed as planned.

The main conclusion to be drawn from Table 17.6 is that, if the programmes and fee schedules recommended in this report were adhered to, then there is no reason why Government recurrent expenditure on education should exceed the financial constraint included in the Committee's Terms of Reference.

*ANNEXURE* 1

OFFICE OF THE PRESIDENT
P.O. BOX 30510
NAIROBI, KENYA
*25th November*, 1975

P. J. Gachathi, Esq.,
Permanent Secretary,
Ministry of Education,
Nairobi.

**NATIONAL COMMISSION ON EDUCATION**

The Cabinet Paper submitted by your Minister recently was discussed on Tuesday, 18th November, 1975. The Cabinet directed that instead of the President appointing a Commission, your Minister should prepare a paper detailing what we require in Education and submit it within two months to the Cabinet for decision on future policy and needs of our Education.

I am now writing to inform you of this directive and to say that you should chair a National Committee to look into the policies and requirements of our education system. You may call upon anybody in the country to assist you in this important job.

The terms of reference should be the same as those contained in the Cabinet Paper and you should then submit a White Paper to the Cabinet which will then go forward for ratification by the Parliament.

This work should definitely be completed within six months from now. Your Minister, nevertheless, will require to keep the Cabinet informed of the progress made so that the objectives of the Cabinet are not lost. Please take immediate action.

Yours sincerely,

G. K. KARIITHI,
*Permanent Secretary.*

## ADDRESS BY MR. P. J. GACHATHI, PERMANENT SECRETARY, MINISTRY OF EDUCATION, AND CHAIRMAN OF THE NATIONAL COMMITTEE ON EDUCATIONAL OBJECTIVES AND POLICIES ON 9TH DECEMBER, 1975

Since Independence, the only comprehensive review of Education in Kenya was by the Ominde Commission whose report, though not officially or formally accepted through a Sessional Paper, was nevertheless the basis of our present quantitative and to a lesser extent qualitative achievements. The present Committee was originally conceived as a Commission. It has been assigned the formidable task of reviewing education and proposing objectives and policies to be adopted for the next decade of independence.

The terms of reference are wide and far reaching and the time alloted to us for the study is so short that some aspects of our findings and recommendations may require further study.

The Ministry of Education sees itself as a partner in a larger undertaking than just what is currently regarded as education. The Ministry is responsible for youth education in the formal sense. While accepting this responsibility the Ministry is aware that pre-school and post-school educational programmes (except the University and teachers' colleges as well as the two Polytechnics) are the responsibility of other Ministries, notably, Labour, Works, Social Services, Agriculture and Health as well as the Directorate of Personnel. In recent years, voluntary bodies including local authorities and churches have entered the field of post-school education.

The Ministry of Education sees itself as a base for preparing young people for training as well as for employment. Therefore, unless its functions and those of the training bodies, departments and other agencies, public or private, are co-ordinated there will always be the new popular criticism of education as being irrelevant to the needs of the country and the aspirations of the people.

Apart from the restriction of the Ministry to the formal education programmes, the Ministry would like to see a review of education relating to the structure and cycle of the present system to rationalize the time spent in each cycle and assess the gains accrued in terms of individual students and funds spent in seeing them through the cycle. The present structure is 7 : 4 : 2 : 3 from Primary One to the end of the first degree at the University. This is a historical heritage which needs to be reviewed at each level and its contribution to the individual's education as well as its relevance to the whole process evaluated. Each level is both preparatory and terminal and its curriculum and syllabus as well as duration must take into account the fact that those who graduate to the next level are fewer than those who leave at that level.

There is also need to look at the curriculum and see how it relates education to work and continued learning. Like the structure, the curriculum should meet the questions of duration, relevance of the content, and its preparatory or terminal role at each of the levels. Since the majority of the people are in the rural areas, and since the rural areas are not identical there is need to express reservations over generalizations, even on the popular grounds of equality for all.

The present system of education offers scope for rural competition which has resulted in unbalanced distribution of opportunities between regions and sexes. Where agricultural development has taken place there is more money to build new primary schools. Where there are more primary schools, both Government and Harambee

movements have been pressed to increase the number of secondary school places. Being mainly day secondary schools, these have tended to cater more for boys than girls resulting in an unbalanced distribution of opportunities.

Furthermore, this problem is being realized at a time when financial restrictions would not let Government rectify the situation without aggravating the problem of inflation of enrolments which has already started to be felt at secondary and tertiary levels.

The demand for qualified Kenyan teachers at all levels is great at the moment. But the current sources of supply cannot meet this demand, especially for teachers of science and mathematics at the secondary and tertiary levels. There is an apparent contradiction here in that, even if the country had all the training facilities, the system would not be able to provide the required raw materials for training. For example there is a grave shortage of people with science and mathematics background, but even if all these were available the economy would not be able to meet the salary bills for a fully trained teaching service.

A few problems exist today to which the present system has not been able to offer solutions. There is the entry and exit age problem at the primary school level. The primary leaver is too young and apparently not mature enough for training or employment. Extension of primary education to 9 years has been suggested as a solution. But no suggestion has been put forward as to what the extra two years would achieve other than extending the age limit. There has also been no suggestion made in respect of how the system would be restructured after the ninth year of primary education.

A further problem which the Ministry acknowledges is related to the introduction of practical subjects in the secondary curriculum. To date, these have failed to achieve the original objectives, namely to prepare the attitudes of recipients to enable them to appreciate the usefulness of manual work and seek future employment in related fields. It appears that the students, the parents and the teachers have not so far appreciated the purpose for these courses. This is made worse by training agencies who have so far not taken these courses into account when selecting candidates for occupational training. The result has been that the student has no motivation for continued interest in these courses. The courses tend to be seen simply as pastime alternatives in school life.

There is need for a clear link between formal education and the occupational training programmes. There is also need to consider the stage at which practical courses are introduced in schools and the location of various courses in relation to available practical experience. For example there may be no point in teaching crop agriculture in a school where the local community is pastoral or industrial since the majority of the school-leavers are unlikely to find employment in agriculture.

One of the problems that the Committee should address itself to is educational management and funding. Primary education is managed by District Education Boards (D.E.B.s) in the rural areas and by municipalities in the urban areas, with a few private enterprises whose contribution is quantitatively insignificant. Secondary education as well as teacher training and polytechnics are managed by a system of Boards of Governors.

Tertiary education is managed by autonomous University Councils which have legal and administrative powers not usually enjoyed by the primary and secondary school boards. While D.E.B.s and Boards of Governors are in theory empowered to manage education in their areas of jurisdiction or institutions, they do not have financial or staff appointment powers to give them complete responsibility and accountability.

With the exception of Harambee and private schools and the University the teaching force is in theory employed by the Teachers Service Commission. However, municipalities are required to pay teachers' salaries and supply school equipment. They

receive Kenya Government grants in respect of teachers' salaries. The D.E.B.s have however no part to play in the distributing of school equipment which is centrally controlled by the Ministry Headquarters. Colleges and secondary schools have no centralized equipment supply.

The divided roles and checkered management arrangements are reflected in disbursement and control of educational funds.

The Ministry of Education will facilitate the work of the Committee by providing information relevant to the terms of reference and on the present system of education to enable the Committee to make its conclusions with a full knowledge of the structure and the various problems facing education including money, personnel and materials. Other Ministries which have training programmes will also be providing similar information for consideration by the Committee. Interested organizations like religious groups will also be requested to give an account of their activities and involvements. The contribution by the Harambee movement will also come up for review as with private educational activities.

It is important to stress the fact that this is a national review of education and training in this country. The Committee should, therefore, aim at recommending workable relationships between education and training on the one hand and social and economic activities on the other. At the moment, apart from providing candidates for various training programmes by other Governmental bodies, the Ministry of Education's efforts in introducing practical subjects in secondary schools have not been encouraged by those selecting candidates for secretarial, agricultural or industrial training institutions managed respectively by the Directorate of Personnel Management and the Ministries of Agriculture and Labour.

For example, it is observed that girls with typing and shorthand experience from the Business Education programme of the Ministry of Education are not given priority when selecting secretarial students. A pass in agriculture is not considered prominent in selecting candidates for agricultural training institutions. This has discouraged both schools and pupils thereby making practical subjects mainly optional due to lack of motivation. It has also been ascertained that the Industrial Training Schemes of the Ministry of Labour are not very encouraging to graduates coming from Technical Secondary Schools. The Committee will, therefore, be expected to investigate the missing links and recommend appropriate action to ensure that education and training are related to each other and to occupational requirements. The Committee should also look into out of school education, including apprenticeship schemes, large-scale employer training within industry programmes, and the efforts of the labour movement.

In its deliberations, the Committee will also be expected to consider and recommend suitable legislative changes which could ease the management of education and training, the control of examinations, issue of certificates by a centralized national body and co-ordination of all education and training activities.

While bearing in mind the financial limitations and constraints, the Committee should consider the contributions made by the people of Kenya to education and training outside the normal Government budget. This includes the Harambee movement in primary and secondary schools, the village polytechnics, the religious groups, and other youth organizations training activities. These considerations may be an illustration to the Committee that when financial restrictions are imposed the people provide alternative means which in the end make it difficult to implement Government plans. Ways of bringing these other contributions to an organized general direction and control at the national level should be considered.

In general the Committee should feel free to probe into all aspects of Kenya's national education and training activities, and propose relevant and practical recommendations to enable the nation to go through to the next decade.

## TERMS OF REFERENCE OF THE COMMITTEE

3.1 To redefine Kenya's educational objectives and to recommend policies to achieve these objectives within the financial constraint that public recurrent expenditure on education should not grow at a faster rate than the Government's recurrent budget, giving consideration to:—

3.1.1 National unity.

3.1.2 The economic, social and cultural aspirations of the people.

3.1.3 The distribution of the benefit and costs of education.

3.1.4 The need to relate education to employment opportunities and to the requirements of rural development.

3.2 To formulate a feasible programme of action to achieve these objectives with reference to:—

3.2.1 The structure of the formal educational system including school years appropriate to each level, admission criteria, examinations and certification ages of entry and exit, and the possibility of introducing work interludes.

3.2.2 The contribution that non-formal education makes and could make to the life-long education of an individual. (By non-formal is meant the activities of Farmers Training Centres, Village Polytechnics, and Harambee groups for various activities.)

3.2.3 The role of the private sector in providing educational and training opportunities, with particular attention to the Harambee schools, commercial schools and religious schools.

3.2.4 The relationship between the training functions of the formal educational system and other systems of training, both formal and non-formal.

3.2.5 The appropriate rates of expansion of educational opportunities geographically and at different levels.

3.2.6 The content of education at different levels, with special attention to primary education and the Government's declared policy of developing the rural areas.

3.2.7 Means for improving the quality of education.

3.2.8 The role of education for women to determine whether the provision is adequate and relevant in all areas (e.g. nomadic areas) and at all levels.

3.2.9 The operation and management, including the cost effectiveness, of the formal system of education; means to improve its capacity to formulate, implement and control educational programmes; and the appropriate degree of decentralization in administration and financial control.

3.3 The Committee is requested in the course of its deliberations:—

3.3.1 To solicit views from a broad spectrum of the public.

3.3.2 To commission papers by experts on areas of its deliberations for which the Committee feels the present state of knowledge is inadequate for the formulation of recommendations.

3.3.3 To review reports and studies by previous missions which have examined the Kenya education system and made recommendations (e.g. Ominde Report, Ndegwa Report, Bessey Report, I.L.O. Report and 1974/78 Development Plan).

3.3.4 To accept as a constraint that public recurrent expenditure on education should not grow more rapidly than the Government's recurrent budget. If national expenditure on education should in the view of the Committee rise faster, the Committee should identify suitable non-Government sources of finance, e.g. school fees for public education and private tuition payments or church subsidies for private education.

*ANNEXURE* 4

## CONSULTANTS TO THE COMMITTEE

Mr. H. C. A. Somerset, Institute of Development Studies, University of Nairobi.

Professor P. Mbithi, Department of Sociology, University of Nairobi.

Mr. P. K. Kinyanjui, Institute of Development Studies, University of Nairobi.

Dr. D. Court, University of Nairobi and Rockefeller Foundation.

Mr. L. A. Lockhart, Planning Unit, Ministry of Education.

Professor M. Todaro, Department of Economics, University of Nairobi.

## PERSONS FROM WHOM BACKGROUND PAPERS WERE SOLICITED

Professor G. Mutiso, Department of Government, University of Nairobi.

Mr. J. C. Kamau, National Christian Council of Kenya.

Mrs. A. Krystall, Bureau of Education Research, University of Nairobi.

Dr. E. R. Krystall, Programme for Better Family Living.

Mr. B. Makau, Chief Examinations Officer, Ministry of Education.

Mr. M. N. Ruchoya, Ministry of Education.

Mr. M. Sinclair, Inspectorate, Ministry of Education.

Mr. Gakuru, Institute of Development Studies, University of Nairobi.

Professor D. Odhiambo, Deputy Vice-Chancellor, University of Nairobi.

Dr. F. Okatcha, Dean of the Faculty of Education, University of Nairobi.

Professor B. A. Ogot, Department of History, University of Nairobi.

Mr. D. C. Sperling, Principal, Strathmore College, Nairobi.

Professor M. S. Alala, Department of Mathematics, University of Nairobi.

Director, Institute of African Studies, University of Nairobi.

Mr. J. M. Wood, Ministry of Education.

Mr. A. Githinji, Ministry of Finance and Planning.

Mr. G. P. Oluoch, Director, Kenya Institute of Education.

Mr. A. N. Getao, Chief Inspector of Schools.

Mr. J. N. B. Osogo, Ministry of Education.

Mr. S. Watuma, Inspectorate, Ministry of Education.

Dr. K. Ragui, Faculty of Commerce, University of Nairobi.

Mr. A. Maina, Chairman, Secondary Schools Heads Association.

Registrar, Kenyatta University College.

Registrar, University of Nairobi.

Mr. G. Ndung'u, Ministry of Education. (P.E.O., Central Province.)

Professor J. G. Donders, Department of Philosophy and Religious Studies, University of Nairobi.

Miss J. Mbula, Department of Philosophy and Religious Studies, University of Nairobi.

Mr. T. Harrison, Ministry of Education.

Mr. S. C. Lang'at, Jomo Kenyatta Foundation.

Mr. A. Mbogho, Principal, Kenya Science Teachers College.

Hon. J. J. Kamotho, M.P.

Secretary, Catholic Secretariat, Nairobi.

## ORGANIZATIONS, DEPARTMENTS AND INDIVIDUALS THAT ATTENDED INTERVIEWS AND/OR SUBMITTED MEMORANDA

**Eastern Province**

1. Marsabit District Delegation (S. E. Oburu, S. G. Daudi, D. A. Webster, P. S. G. Goto, P. H. Dido, J. Asteggiano, J. E. Chiwe, B. S. Kimani, N. Guleid, Sr. Fulgidda, J. Abdub, C. Pereira, K. M. S. Kigen, Hon. M. K. Adichareh, M.P.).
2. Provincial Education Office (W. M. Okech, J. W. Nguru, E. L. Obino, J. K. Chege).
3. Embu District Development Centre (J. M. Alnes).
4. Provincial Heads.
5. Kenya National Union of Teachers, Eastern Province Branch (Z. Muchena, E. Ndwiga, I. W. Nzyoka, J. Mwanzia).
6. Hon. J. J. M. Nyagah, M.P., Minister for Agriculture.
7. Embu County Council (J. M. K. Mwathi).
8. Diocese of Mount Kenya East (Bishop D. M. Gitari, E. Nthiga).
9. Presbyterian Church of East Africa, Embu (E. M. Kanga).
10. Machakos District Trade Development Office (D. A. Odhiambo).
11. Meru Municipal Council.
12. Embu Municipal Council (R. W. D. Kiggathi).
13. Machakos District Education Board (B. Kaaria).
14. Provincial Planning Office (C. C. Wekullo).
15. Meru Central Co-operative Union (S. M. Marete).
16. Machakos Catholic Diocese (Fr. Suttle representing Bishop U. J. Kioko).
17. Katumani Agricultural Research Station, Machakos (N. K. Mutharia).
18. Kitui County Council (F. N. Kathembe).

**Central Province**

19. Kiambu District Delegation (E. Njenga, J. Njiraini, E. S. N. Kibutha).
20. Maendeleo ya Wanawake Organization, Nyeri District (Mrs. G. N. Wanyeki).
21. Nyeri District Education Office (J. W. Muriithi).
22. Kenya Secondary Heads Association, Central Province Branch (M. Mwangi).
23. Catholic Diocese of Nyeri.
24. Diocese of Mount Kenya South (E. Ngaruiya, J. Kago, A. Githinji).
25. Murang'a County Council (Z. Muhia).
26. Provincial Education Office, Nyeri.
27. Provincial Heads of Departments (S. Nyachae, L. D. Galgalo, G. M. Ndung'u, C. M. Mathangani, L. Noble, M. Maillu, J. Waithaka).
28. Kirinyaga District Education Office (J. W. Abwao).
29. Kamwenja Teachers College (S. J. Ondego).
30. Thika High School (P. W. Munga).
31. District Commissioner's Office, Nyeri (Z. Orwa).
32. Murang'a District Education Office.

**North-Eastern Province**

33. Provincial Commissioner's Office (B. O. Osare, E. W. Wandera, B. Kithonga, R. M. Muriuki, A. K. Rotich, P. J. Otucho).
34. Mandera District Delegation (A. M. Abdille).
35. Wajir District Delegation (S. P. Mung'ala, O. G. Abdille, D. N. Ali, A. S. Khalif, M. M. Said, Fr. Baldazzi, M. Noor, S. H. Khadi, Miss M. Mohamed).
36. Garissa District Delegation (E. A. Munala, F. K. Musau, M. I. Atosh, A. A. Bakorda, M. A. Haji, Mrs. E. Ali).

**Coast Province**

37. Lamu District Delegation (E. G. Karanja, L. M. Buya, H. Swalgh, A. Amana, Hon. A. O. Cheka, B. C. Mbogoh, O. H. Athman).
38. Shanzu Teachers College.
39. Nyakinyua Group of Mombasa (Mrs. M. M. Gitonga).
40. Mayor of Mombasa.
41. Kenya National Union of Teachers, Coast Province Branch (W. Mdigo, Z. Maundu, C. J. Kai, M. Ochino).
42. Kilifi District Delegation (A. V. Shuria, O. B. Jilo).
43. Kwale District Delegation (E. N. Nyarangi, Mrs. D. B. Mbogoh, S. D. Gicheru, H. L. J. Igwo).
44. Tana River Delegation (D. A. Musila).
45. Taita-Taveta District Delegation (S. A. H. Alhadhry, E. K. Kinguru).
46. National Union of Kenya Muslims, Coast Province.
47. Provincial Commissioner's Office (E. Mahihu, S. T. Mwakisha).
48. Hon. A. O. Cheka, M.P.
49. Provincial Education Office (C. G. Muhoya, A. A. A. El-Maawy).
50. Mombasa District Delegation (P. J. Mwangi, N. Manyi, J. E. Lumallas, B. M. Munyeki, A. N. Kagema, Mrs. M. Gitonga, M. O. Mohamed, H. Yosuf).
51. Kenya African National Union, Coast Province Branch (W. N. Mwanyumba).
52. Mr. A. A. A. El-Maawy.

**Nyanza Province**

53. Nyanza Provincial Development Committee (I. Cheluget).
54. A. Otiu Achola & Co., Accountants and Auditors, Kisumu (G. Odongo-Achola).
55. Homa Bay Parents Association.
56. Siaya District Education Board (Mulama, J. E. Okara).
57. Diocese of Kisumu (J. M. Kwanga).
58. Government Training Institute, Maseno (J. Lavuna).
59. Family Planning Association of Kenya (J. O. Obenyo).
60. Hon. S. Odoyo, M.P.
61. Hindu Council, Kisumu (Miss M. S. Fitter, Patel).
62. Siaya District Parents Association (A. H. O. Sibuor).
63. Siaya County Council (J. C. O. Okech, A. Ober).
64. Kenya Secondary Schools Heads Association, Nyanza Province Branch (J. T. Ogweno, E. J. Were).

65. Kisii District Education Board.
66. Homa Bay Urban Council (N. O. Alila).
67. Kenya National Union of Teachers, Nyanza Provincial Council (Chairman, Secretary).
68. Kisumu Rural Constituency (Hon. W. A. Onyango-Ayoki, M.P.).
69. Municipality of Kisumu (O. K'Ombundo).
70. Kisumu Wananchi Observers (Hon. Mrs. G. Onyango, M.P.).
71. Provincial Education Office.
72. Union of Kenya Civil Servants (J. C. D. Chikuta).

**Western Province**

73. Teachers in Kakamega District (J. M. Katumanga).
74. Civil Servants, Western Province (J. Mburu).
75. Busia District Education Board (C. Kisaka, R. K. Koech).
76. Bungoma District Education Board (E. P. Oranga, J. N. Njuguna).
77. Kenya Secondary Schools Heads Association, Western Province Branch (Miss S. Nolega).
78. Busia District Parents Association (D. O. K. Agonga).
79. Teso Community (Hon. O. Oprong, M.P.).
80. Maendeleo ya Wanawake Organization, Western Province Branch (Mrs. P. Abura).
81. Bungoma County Council (P. Nassiuma).
82. Kakamega County Council (F. Binayo).
83. Webuye Town Council (P. Wangamati).
84. School Parents (P. Ingutia).
85. Kenya National Union of Teachers, Bungoma Branch (G. J. Lusweti).
86. Kenya National Union of Teachers, Busia Branch (Executive Committee).
87. Bungoma Town Council (Chairman).
88. Municipal Council of Kakamega (R. Magotsi).
89. Busia County Council (F. Omoding).
90. Kenya National Union of Teachers, Kakamega Branch (D. M. Mulindi).
91. Western Province Local Authorities (P. Wangamati).
92. Rift Valley-Nyanza-Western Colleges Principals Association (B. W. Ogutu, C. Ford).
93. Kenya African National Union, Western Province Branch (S. Lugonzo, A. Ochwada).
94. Provincial Inspectorate (K. Hynes).
95. Christian Churches Educational Association, Western Province (B. Makokha).
96. Provincial Commissioner's Office (J. Mburu).
97. Provincial Engineer's Department (Braganza).
98. Joint Bungoma, Busia and Kakamega Districts' Delegation (E. P. Oranga, C. Kisaka, Tiampati).
99. Prisons Department.
100. Forest Department (E. A. Ochieng).

101. Social Services Department (J. M. Onyango).
102. Co-operatives Department.
103. Mr. F. Ingutia.
104. Kakamega District Education Board.
105. Provincial Education Office.
106. Provincial Directorate of Agriculture (S. G. Ndung'u).
107. Provincial Administration's Office (C. M. Okal).
108. Medical Training Institutions.
109. Kenya Police, Western Province.
110. Provincial Local Government Financial Office.
111. K.A.N.U., Western Province (S. Lugonzo).

**Rift Valley Province**

112. Provincial Commissioner's Office (I. M. Mathenge, A. N. Ndoro, E. G. Kang'ethe, S. K. Murugu).
113. Nakuru High School (K. W. Penn).
114. Uasin Gishu District Education Board (C. W. C. Murage, C. Etale).
115. Samburu District Education Board (U. B. Aduwo).
116. Baringo District Education Board (G. H. Mwangi).
117. West Pokot District Commissioner's Office (F. K. Cherogony, J. K. Irongi).
118. Nakuru District Education Office (P. K. Mulani).
119. Provincial Medical Office (A. K. Gikonyo).
120. Kajiado District Commissioner's Office (J. A. Kamau).
121. Keiyo-Marakwet District Commissioner's Office (W. O. Muganda, E. Sigei).
122. Samburu District Team (J. K. Etemesi, D. N. Lentaaya, J. M. Lalampaa, J. C. Cheptoo, D. L. Letoyia, L. W. Warunge, J. S. Kekeren, P. Tallone).
123. Turkana District Commissioner's Office (F. X. Asonga).
124. Narok District Commissioner's Office (J. K. Kobia).
125. West Pokot Land Adjudication Department (S. K. Ngelech).
126. Provincial Planning Office (M. R. Gachago).
127. Maendeleo ya Wanawake Organization, Rift Valley Branch (Mrs. J. Ndegwa, Mrs. I. Wambia).
128. Nandi District Commissioner's Office (B. A. Osundwa, O. A. Wafula, M. Kagume, S. W. Waimiri, W. M. Kinyoli, E. Barngetuny, N. Kerich).
129. Union of Kenya Civil Servants, Rift Valley Area Office (S. O. Obita, B. K. Naibei).
130. Provincial Information Office (H. A. Anziya).
131. Trans Nzoia District Commissioner's Office (B. M. Makanga).
132. Dr. J. K. N. Ngeno, Nakuru.
133. West Pokot District Education Office (J. K. Irongi, K. Bet, B. M. Oweke, E. Mukee).
134. Kericho Town Council (J. K. Siele).
135. Eldoret Municipal Council (J. K. Lesiew, E. Odhiambo, P. N. Kwedho).
136. Nakuru Municipal Council (K. Ndune).

137. Kenya National Union of Teachers, Rift Valley Province Branch (J. K. Karago, C. N. Githaiga, M. P. Gichiri, G. M. Kimata).

138. Diocese of Nakuru, Church of the Province of Kenya.

139. Catholic Diocese of Nakuru (Bishop Ndingi, J. K. Wainaina).

140. Kericho District Commissioner's Office (J. K. Mulandi, E. Okech, D. M. Wambua).

**Nairobi**

141. Kenya African National Union (Hon. R. S. Matano, P. S. Gicumbi).

142. New Akamba Union (J. Munge, W. M. Senga, J. K. Maitha).

143. Kenya National Chamber of Commerce and Industry (F. Macharia).

144. Central Organization of Trade Unions (F. Omido, J. O. Ohutso, J. Kaiga).

145. Sikh Education Committee (J. Grewal, S. Verdee, T. S. Bhabra, S. Singh).

146. Nairobi and Mombasa Polytechnics (D. R. Gichuru, S. O. Odede, Z. Alibhai, C. H. Thompson, M. M. Ng'ang'a).

147. Hon. M. Wanjigi, M.P., Assistant Minister for Water Development.

148. Maendeleo ya Wanawake Organization (Mrs. W. Otieno, Mrs. L. Bett).

149. Islamic Foundation (M. A. Quraishy, M. A. Sheikh, M. Jasho, S. Munyii, Miss Q. Jehan, M. Sayied, A. Nassir).

150. Nurses, Midwives and Health Visitors Council of Kenya (Mrs. K. T. Kanari, Mrs. W. W. Nyoike, Mrs. M. E. Beveridge, J. Kachina).

151. Delegation of Central Kenya Institutes of Technology (J. K. Gecau, H. J. Nyamu, P. M. Githinji).

152. Mr. L. M. Kabetu, Permanent Secretary, Ministry of Commerce and Industry.

153. Mr. J. Oluoch, Permanent Secretary, Ministry of Co-operatives.

154. Dr. J. N. Karanja, Vice-Chancellor, University of Nairobi.

155. Department of Literature, University of Nairobi (Ngugi wa Thiong'o, G. R. Gacece, O. P'Bitek, Dr. (Mrs.) M. Mugo, Hon. Mrs. E. Gachukia, M.P.).

156. National Council of Women of Kenya (Hon. Mrs. E. Gachukia, M.P.; Miss A. Barasa, Mrs. T. Shitakha, Mrs. M. Opiyo).

157. Provincial Commissioner's Office (P. Boit).

158. Hon. Kahende, M.P.

159. Hon. M. Mathai, M.P.

160. Mr. Z. N. B. Kanaiya, Librarian, Kenya Institute of Administration, Lower Kabete.

161. Bishop U. J. Kioko, Machakos.

162. National Christian Council of Kenya (H. Etemesi, Major (Miss) E. Clarke, R. O. Ondeng', Hon. Bishop L. Imathiu (M.P.), B. Kiplagat, J. H. Jackson, R. E. Coon, D. K. Kirui, B. O. Gumba, Mrs. N. B. King'ori).

163. Christian Churches Educational Association and the Kenya Catholic Secretariat (Bishop C. Gatimu, J. Gatu).

164. Christian Churches Educational Association and the Kenya Catholic Secretariat (R. O. Ondeng' and Fr. Omusolo).

165. Provincial Co-operative Officer (S. J. Ouma).

166. Provincial Education Officer.

167. Association of Local Government Authorities of Kenya (J. P. Mbugua, Z. K. Kariuki, J. M. Njora).

168. Mr. G. W. Griffin, Director of the National Youth Service and Starehe Boy's Centre.

169. Hon T. Toweett, M.P., then Minister for Housing and Social Services.

170. Kenya Secondary Schools Heads Association (A. S. Maina, H. B. Agoya, Mrs. P. Oloo, E. N. Njoka, J. T. Ogweno, A. N. Hosein, W. K. K. Kimalat).

171. Kenya National Union of Teachers (D. M. Mulindi, J. A. Ronoh, W. Letting, W. M. Barake, P. L. Lubullelah, J. Karago, J. S. ole Polong, I. W. Nzyoka, J. C. Yego, M. J. Bosco, G. S. N. Naholi, N. Gichuki, J. Mwanzia).

172. Kenya National Farmers' Union (J. Finegold).

173. Primary Colleges Principals Association (B. W. Ogutu, J. K. Wainaina, C. Ford).

174. Abaluhya Association (J. Mulama, M. G. Mulembo, J. Ambayi, J. P. Mulama).

175. Nairobi City Education Office (J. Wanyoike).

176. Dagoretti Community (P. M. Gitu, N. Kariuki, J. N. Muchene).

*ANNEXURE 7*

## SUPPORTING SECRETARIAT OF THE COMMITTEE

*Chief Executive Officer:*
Mr. I. Hunja.

*Deputy Chief Executive Officer:*
Mr. F. Kaumbutho.

*Executive Assistant:*
Mr. J. M. Kamanu.

*Secretaries:*
Mrs. T. Shimechero.
Mrs. E. Wairagu.
Miss M. Kuria.
Miss A. Righa.

*Office and Subordinate Staff:*

| | |
|---|---|
| Typists ... ... ... | 3 |
| Clerical Officers ... ... | 2 |
| Drivers ... ... ... | 2 |
| Telephone Operator ... | 1 |
| Head Cleaner ... ... | 1 |
| Subordinate Staff ... ... | 3 |

## PROGRAMME FOR A SEMINAR OF THE NATIONAL COMMITTEE ON EDUCATIONAL OBJECTIVES AND POLICIES HELD AT TEA HOTEL, KERICHO FROM 23RD TO 28TH FEBRUARY, 1976

### Objectives

To enable members of the National Committee to be fully briefed on all that was going on in education and training in relation to the various sectors of the social and economic development of Kenya in preparation for the detailed review work the members were expected to carry out.

### Programme

MONDAY, 23RD FEBRUARY, 1976

8.30 *a.m. to* 10.30 *a.m.*

1. Opening remarks by the Chairman—*Mr. P. J. Gachathi.*
2. General discussion.

11.00 *a.m. to* 1.00 *p.m.*

3. Relation of education to the general economic situation (real and projected)—*Mr. H. M. Mule, Member.*
4. Education as a service competing for financial resources allocated for Government expenditure bearing in mind the relative scarcity of the available resources to meet the needs of a large number of competing services—*Mr. C. N. Kebuchi, Deputy Permanent Secretary, Treasury.*

2.30 *p.m. to* 4.30 *p.m.*

5. Development of rural areas and the educational requirements for it (specifically comparing Kenya with other African countries) bearing in mind that great emphasis on rural development is likely to become a major feature of national development. Definition of rural development—*Professor S. H. Ominde, member.*
6. Adult and other forms of continuing education—*Mr. D. Macharia, Director, Institute of Adult Studies; Mr. S. Kihumba, Secretary, Board of Adult Education.*

8.15 *p.m. to* 10.15 *p.m.*

7. Education and employment. Unemployment. Unemployable products of education—*Professor P. Mbithi, University of Nairobi.*

TUESDAY, 24TH FEBRUARY, 1976

8.30 *a.m. to* 10.30 *a.m.*

1. Introduction—*Chairman.*
2. Pre-primary and Primary Education—*Mr. H. J. Kanina, Director of Education; assisted by Mr. A. N. Getao, C.I.S.; Mr. J. M. G. Muhoro, D.D.E. (A); Mr. L. A. Lockhart, Planning Unit, Ministry of Education.*
3. Education in urban areas—*Mr. J. Wanyoike, Education Officer, Nairobi.*

11.00 *a.m. to* 1.00 *p.m.*

4. Secondary and Technical Secondary Education—*Mr. H. J. Kanina, Director of Education; assisted by Mr. A. N. Getao, C.I.S.; Mr. J. M. G. Muhoro, D.D.E. (A); Mr. L. A. Lockhart, Planning Unit, Ministry of Education.*

2.30 *p.m. to* 4.30 *p.m.*

5. Special Education—*Lt.-Col. G. Swansbury, member.*
6. Role of religious and other voluntary organizations in education—*Rev. J. G. Gatu, member.*
7. Institutes of Science and Technology—*Rev. Fr. J. Gitonga, member.*

8.15 *p.m. to* 10.15 *p.m.*

8. University Education—*Dr. A. Maleche, member; Mrs. J. Ramtu, member.*

WEDNESDAY, 25TH FEBRUARY, 1976

8.30 *a.m. to* 10.30 *a.m.*

1. Introduction—*Chairman.*
2. Post-Secondary—Professional Technical Education—*Mr. H. F. Mtula, Principal, Kenya Polytechnic and Mr. Ng'ang'a, Senior Lecturer and Head of Building and Civil Engineering Department.*
3. Training under N.Y.S. and Starehe Boys' Centre—*Mr. C. G. Githaiga, Deputy Director, N.Y.S.*

11.00 *a.m. to* 1.00 *p.m.*

4. Employers' requirements in relation to technical education—*Brief address by representatives from E.A. Industries, Metal Box, Federation of Kenya Employers and as a Panel to answer questions.*

2.30 *p.m. to* 4.30 *p.m.*

5. Problems of planning for manpower—*Mr. G. Edgren, Ministry of Labour.*
6. Teacher Education (Primary)—*Mr. D. Mbiti, Ministry of Education.*

8.15 *p.m. to* 10.15 *p.m.*

7. Teacher Education (Secondary and Teacher Training Colleges)—*Prof. F. F. Indire, University of Nairobi; Mr. A. Mbogho, Principal, K.S.T.C.*
8. The role of the Teachers Service Commission—*Mr. J. M. Kamunge, Secretary, T.S.C.*

THURSDAY, 26TH FEBRUARY, 1976

8.30 *a.m. to* 10.30 *a.m.*

1. Introduction—Training programmes undertaken by Ministries indicating among other things: Type of training programmes, objectives of the training programmes, methods of training, problems, costs of training per student—*Chairman.*
2. Office of the President—*Mr. H. J. Nyamu, Principal, K.I.A.*
3. Ministry of Agriculture—*Mr. J. S. Mburu, member.*
4. Ministry of Co-operative Development—*Mr. J. N. Oluoch, Permanent Secretary.*

11.00 *a.m. to* 1.00 *p.m.*

5. Ministry of Natural Resources—*Mr. J. Kiio, Deputy Secretary.*
6. Ministry of Commerce and Industry—*Mr. F. N. Ondieki, Deputy Secretary.*
7. Ministry of Housing and Social Services—*Mr. K. Onyoni, Deputy Secretary.*
8. Ministry of Information and Broadcasting—*Mr. J. Kangwana, Director of Broadcasting, V.O.K.*

2.30 *p.m. to* 4.30 *p.m.*

9. Ministry of Works—*Mr. S. J. Mbogua, Permanent Secretary.*
10. Ministry of Power and Communications—*Mr. S. B. Ogembo, Permanent Secretary.*
11. Office of the Attorney-General—*Mr. J. B. Karugu, Deputy Public Prosecutor.*

8.15 *p.m. to* 10.15 *p.m.*

12. Ministry of Health—*Dr. M. R. Migue, member.*
13. Ministry of Labour—*Mr. J. M. Mutugi, member; Mr. S. Odera-Oteng, Director of Industrial Training, Ministry of Labour.*

FRIDAY, 27TH FEBRUARY, 1976

8.30 *a.m. to* 10.30 *a.m.*

1. Introduction—*Chairman.*
2. Ministry of Water Development—*Mr. N. S. Kungu, Permanent Secretary.*
3. Ministry of Home Affairs—*Mr. M. H. Motiga, Deputy Secretary.*
4. Ministry of Foreign Affairs—*Mr. L. O. Kibinge, Permanent Secretary.*
5. Ministry of Tourism and Wildlife—*Mr. J. D. Wandera, Deputy Secretary.*

11.00 *a.m. to* 1.00 *p.m.*

6. Problems of urbanization and mass education—*Mr. J. P. Mbogua, Town Clerk, Nairobi.*
7. Training in the Private Sector from the point of view of Kenyanization and immigration—*Mr. J. Waiboci, Director, Kenyanization Bureau.*

2.30 *p.m. to* 4.30 *p.m.*

8. Management of Education—*Mr. G. R. M'Mwirichia, member; assisted by Mr. H. J. Kanina, D.E.; Mr. A. N. Getao, C.I.S.; Mr. J. M. Muhoro, D.D.E. (A).*
9. 6.00 p.m. COCKTAIL PARTY.

SATURDAY, 28TH FEBRUARY, 1976

9.00 *a.m. to* 11.00 *a.m.*

1. Science, Technology and Culture—*Prof. P. Gacii, National Council of Science and Technology.*
2. Business Education—*Mr. Z. K. Gakunju, member.*
3. Summing up and closure of Seminar—*Chairman.*

## FUNCTIONS AND STRUCTURE OF TASK FORCES

**al Comments**

The main goal of the work of the task forces is to enable the National Committee on Educational Objectives and Policies to achieve the following three objectives which should be kept in mind at all times:—

1.1 To evaluate the present educational system.

1.2 To define a new set of educational goals for the second decade of Independence.

1.3 To formulate a specific programme of action for achieving these goals.

2. Under each task force the first three tasks are considered to be the top priorities out of the total number and should be examined in greater depth.

3. In all cases the financial and manpower implications should as far as possible be ascertained.

4. The task forces will be provided with the necessary secretarial and consultancy resources.

### Task Force No. 1

CONVENOR.—Mr. H. M. Mule.

MEMBERS.—Mr. Z. K. Gakunju, Rev. J. G. Gatu, Hon. E. D. Godana, M.P.

RAPPORTEUR.—Mr. H. M. Kahigu.

MAIN OBJECTIVES

*To examine the pattern of national development, with special reference to the nation's economic, social and cultural values, and identify the role played by education and training in promoting these.*

TASKS

TF. 1.1 *Education and national development, including distribution of incomes*

To study and determine objectives of education and development special reference to the qualities to be achieved.

To examine the relevance of the distribution of incomes in Ken the priorities of and pressures on the education system and education in bridging the gap between high and low income g

TF. 1.2 *Financing of education*

To examine the adequacy of recent economy measures ir financial constraints on recurrent expenditure on educat mend alternative or additional measures.

To examine and determine the resources which are with special reference to costing and financi

To examine and recommend other mea to increase the resources available to contributions of the private institutio

TASKS

TF. 1.3 *Education and employment*

To examine the causes, nature and extent of unemployment and unde employment in Kenya.

To examine and recommend measures for bringing about a more effective relationship between numbers of income-earning opportunities and numbers seeking such opportunities as well as between the content of education and training and the manpower needs of the country.

To examine the problem of unemployment among primary and secondary school-leavers and recommend measures to reduce it.

TF. 1.4 *Education and rural development*

To examine the role of education in promoting rural development and to recommend measures for improving social and economic conditions in the training.

TF. 1.5 *Education of women*

To study the progress made in education of girls since Independence and to recommend measures for equalizing opportunities for education between men and women.

TF. 1.6 *Community Harambee effort*

To examine the pattern of community contribution by development through Harambee effort as manifested by self-help projects and to formulate effective ways of mobilizing this effort throughout the country for social and economic development.

TF. 1.7 *Regional educational distribution*

To examine the seriousness of the present imbalances in educational provision between different regions and between different groups of the population, and make recommendations on how to correct these imbalances.

TF. 1.8 *Allocation of available resources*

To examine the criteria for allocating scarce resources between different sectors of education and training.

F. 1.9 *Science education*

To examine the state of science/mathematics education in Kenya compared with that of arts and humanities and to recommend the role of science in the context of accelerated economic and social transformation of the country.

10 *Manpower planning and development*

To examine the pattern of manpower requirements in the various sectors of the economy and to recommend ways of making long-term manpower forecasts for the estimated future needs of the country.

## Task Force No. 2

CONVENOR.—Mr. K. Mwendwa.

MEMBERS.—Mr. H. J. Gitau, Mrs. J. Ramtu, Mr. A. A. Adongo, Lt.-Col. Swansbury, Hon. J. Boy, M.P.

RAPPORTEUR.—Mr. D. M. Mbiti.

MAIN OBJECTIVES

*To examine the first cycle of education (pre-primary and primary), determine the optimal structure and content to be achieved and recommend steps for achieving this.*

*To examine the special requirements of handicapped children, with special reference to the possibilities of integration into normal schools and home surroundings.*

TASKS

TF. 2.1 *Primary education*

To examine the present structure and content of primary education, with special reference to curricula.

To examine the desirability, feasibility and costs implications of increasing applied subjects into the primary school curriculum.

TF. 2.2 *Duration of primary education*

To examine the merits and demerits of the proposed 9 years' basic primary education or diversification, compared with the present 7 years' duration, and consider the necessary curricular changes, costs and implication for other educational sectors.

TF. 2.3 *Selection and CPE*

To examine the efficiency, equity and other effects of selection and certification processes presently used in Kenya and recommend alternative methods where necessary.

To examine the desirability and feasibility of standardizing CPE scores for candidates' ages.

To examine the problems related to the testing of achievement and/or aptitude in applied subjects.

To examine the problems of access to post-primary formal education, with special reference to patterns of fees and distribution of education opportunities.

TF. 2.4 *Access to primary education*

To examine the pattern of pre-primary education in Kenya, with special reference to structure, content and management.

To examine the desirability and feasibility of greater Government participation in pre-primary education through financial assistance, training of teachers, standardization of syllabuses, and establishment of minimum standards and inspection machinery.

To examine problems of access to primary education and recommend measures for dealing with them.

TASKS

TF. 2.5 *Teacher training*

To examine the problems and programmes of teacher training and recommend ways of improvement including those of formal and non-formal systems of education.

To examine the recruitment, grading and promotion of teachers, with special reference to the recruitment of teacher educators.

To examine the problem of employment of unqualified teachers.

To examine the structure and length of pre-service and in-service training courses for primary teachers and the related problem of under-utilization of expensive teacher education facilities.

TF. 2.6 *Age at entry and exit in primary education*

To examine the desirability and feasibility of altering the age of entry into primary school.

To examine the problems, and recommend solutions regarding primary school-leavers who are too young to join the labour market.

TF. 2.7 *Universal primary education*

To examine the feasibility of introducing compulsory and universal primary education.

TF. 2.8 *Nomadic and other communities*

To examine the desirability and feasibility of special provision of primary education among the nomadic and other communities with special problems.

## Task Force No. 3

CONVENOR.—Prof. S. H. Ominde.

MEMBERS.—Mrs. J. W. Waithaka, Lt.-Col. Swansbury, Dr. M. R. Migue, Dr. A. J. Maleche, Mr. A. A. Adongo, Mr. K. Mwendwa.

RAPPORTEURS.—Mrs. M. W. Githinji, Mr. T. M. Gathungu.

MAIN OBJECTIVES

*To examine the post-primary system of formal education, with special reference to its relevance to occupational activities, both those which are planned and in existence.*

*To examine the special requirements of handicapped children, with special reference to the possibilities of integration into normal institutions and home surroundings.*

TASKS

TF. 3.1 *Secondary education*

To examine the present structure and content of secondary education, with special reference to curricula.

To examine the success or otherwise of introducing applied subjects into secondary schools.

To examine the desirability and feasibility of consolidating secondary education into larger units, taking into consideration the boarding and administrative implications of such consolidation.

TASKS

TF. 3.2 *University education*

To examine the planning and development of university education in Kenya, including the proposed scheme of service, its logistics and effects on studies.

To examine the problems of access to university education.

TF. 3.3 *Forms V and VI*

To examine the planning and development of Forms V and VI, with special reference to curriculum, problems of over-specialization and the need to study for two full years.

To examine the desirability of consolidating Forms V and VI into larger units with the possibility of developing junior colleges.

TF. 3.4 *Teacher training*

To examine the problems and programmes of teacher training and recommend ways of improvement, including those of formal and non-formal systems of education.

To examine the recruitment, grading and promotion of teachers, with special reference to the recruitment of teacher educators.

To examine the problem of employment of unqualified teachers.

To examine the recruitment of secondary level teacher education, including the problem of drop-outs in those subjects with a scarcity of teachers.

To examine the structure of the Bachelor of Education course for secondary level teachers

TF. 3.5 *Science and Mathematics*

To identify the reasons for the poor performance in science and mathematics in secondary schools and recommend ways of improving it.

TF. 3.6 *Localization of curricula*

To examine the extent and adequacy of localization of secondary school curricula.

TF. 3.7 *Examinations organization*

To examine and evaluate the adequacy of the present organization of secondary level examinations, with special reference to progress made so far in the re-organization of examinations under the East African Examinations Council.

TF. 3.8 *Harambee and private schools*

To examine the efficiency of the running of Harambee and private schools.

To study Government policies regarding these schools.

TF. 3.9 *Financing of secondary education*

To examine the adequacy of the present level of financing of Government secondary schools, with special reference to the recent changes in the financing of high-cost schools.

TF. 3.10 *Expansion of secondary education*

To recommend strategies for post-primary education and training.

To examine the present criteria for expanding secondary schools and recommend appropriate ones, bearing in mind the need to integrate secondary education with rural development.

## Task Force No. 4

CONVENOR.—Mr. J. M. Mutugi.

MEMBERS.—Mr. J. N. Michuki, Mr. Z. K. Gakunju, Mr. S. Kihumba, Mr. J. S. Mburu.

RAPPORTEUR.—Mrs. J. M. Nyamu.

MAIN OBJECTIVES

*To examine the relationship between the training objective and function of the formal education system and all other systems of training, both public and private, with particular reference to the role of the Government in training which is conducted by the private sector.*

*To examine in particular the role of technical and other forms of skilled education and training in modernizing, facilitating and expanding the economy, including a review of the possible long-term roles of the Harambee Institutes of Technology being developed in various parts of the country.*

TASKS

TF. 4.1 *Links between formal and non-formal education and training*

To examine the structure and content of non-formal systems of education and training, both public and private.

To examine the efficiency of private institutions of education and training as measured by performance in public examinations, management and other criteria with special reference to their curricula, employment prospects of their trainees and Government policy towards them.

To examine functional links between the formal and non-formal systems of education and training, with special reference to sharing of teachers and facilities and continuity between their programmes.

TF. 4.2 *Technical secondary education, Harambee institutes of technology and village polytechnics*

To examine the relative advantages of formalized technical education and other forms of adaptive skills compared with on-the-job training, bearing in mind relative costs, built-in-obsolescence of technical education and employers' requirements.

To examine the development of Harambee Institutes of Science and Technology and Village Polytechnics, with special reference to their planning, co-ordination, financing, curricula, courses, examinations and employment prospects of their students, and Government policy towards them.

TF. 4.3 *Adult and continuing education*

To examine the problems and programmes of adult and other forms of continuing (recurrent) education and their contribution to personal and national development.

TF. 4.4 *Work interlude*

To examine the recently introduced work interlude for prospective primary school teachers, and possibilities of introducing such arrangements for other teachers and/or other employees.

TASKS

TF. 4.5 *Financing and fee structures*

To examine the fee structures and general patterns of financing various types of training programmes.

TF. 4.6 *Strategy for technical education*

To recommend a broad strategy for technical education and training.

To examine appropriateness of levels of education for entry into training.

To examine problems of access to non-formal post-primary education and training.

To study the demand for personnel with technical qualifications, with special reference to evaluation of the present methods of forecasting and interpretation of evidence of unemployment of technically qualified personnel.

**Task Force No. 5**

CONVENOR.—Dr. A. J. Maleche.

MEMBERS.—Mr. G. R. M'Mwirichia, Rev. Fr. J. Gitonga, Mr. G. G. Njoroge, Mr. J. H. Oyugi.

RAPPORTEURS.—Mr. F. Kaumbutho, Mr. S. M. Wachira.

MAIN OBJECTIVE

*To study the operation and management, including costs effectiveness, of the formal and other forms of education and training, and recommend measures to improve its capacity to formulate, implement, control and co-ordinate education and activities.*

TASKS

TF. 5.1 *Co-ordination*

To examine the problem of co-ordination of the different types of education and training activities and make appropriate recommendations.

TF. 5.2 *Guidance and counselling service*

To study the role of the Guidance and Counselling Services in guiding students about careers and make recommendations for making it increasingly effective.

TF. 5.3 *Present management of education*

To examine the present pattern of educational organization, management and planning, and recent proposals for re-organization.

To recommend alternative or additional proposals for re-organization of the planning, co-ordination and management of all activities of education and training.

TF. 5.4 *Educational materials*

To examine the preparation and distribution of educational materials, including educational technology.

# ITINERARY AND QUESTIONNAIRE FOR THE PROVINCIAL VISITS OF THE NATIONAL COMMITTEE ON EDUCATIONAL OBJECTIVES AND POLICIES DURING APRIL, MAY AND JUNE, 1976

## 1. Itinerary

*April*

| | |
|---|---|
| 5 Monday ... ... ... | Fly to Marsabit. |
| 6 Tuesday ... ... ... | Visit educational institutions in Nyeri. |
| 7 Wednesday ... ... | Interviews in Nyeri |
| 8 Thursday ... ... ... | Interviews in Nyeri |
| 9 Friday ... ... ... | Interviews in Embu. |
| 10 Saturday ... ... ... | Interviews in Embu. |
| | Travel to Nairobi. |
| 12 Monday ... ... ... | Interviews in Nairobi. |
| 13 Tuesday ... ... ... | Interviews in Nairobi. |
| 14 Wednesday ... ... | Interviews in Nairobi. |
| 27 Tuesday ... ... ... | Fly to Garissa. |
| | Interviews in Garissa. |
| | Fly to Nairobi. |

*May*

| | |
|---|---|
| 1 Saturday ... ... ... | Travel to Mombasa. |
| 3 Monday ... ... ... | Interviews in Mombasa. |
| 4 Tuesday ... ... ... | Interviews in Mombasa. |
| 5 Wednesday ... ... | Travel to Nairobi. |
| 9 Sunday ... ... ... | Travel to Kisumu. |
| 10 Monday ... ... ... | Interviews in Kisumu. |
| 11 Tuesday ... ... ... | Interviews in Kisumu. |
| 12 Wednesday ... ... | Interviews in Kakamega. |
| 13 Thursday ... ... ... | Interviews in Kakamega. |
| 14 Friday ... ... ... | Travel to Nairobi. |
| 25 Tuesday ... ... ... | Travel to Nakuru. |
| 26 Wednesday ... ... | Interviews in Nakuru. |
| 27 Thursday ... ... ... | Interviews in Nakuru. |
| 28 Friday ... ... ... | Interviews in Nakuru. |
| 29 Saturday ... ... ... | Travel to Nairobi. |

*June*

| | |
|---|---|
| 21 Monday ... ... ... | Interviews in Nairobi. |
| 22 Tuesday ... ... ... | Interviews in Nairobi. |
| 23 Wednesday ... ... | Interviews in Nairobi. |
| 24 Thursday ... ... ... | Interviews in Nairobi. |
| 25 Friday ... ... ... | Interviews in Nairobi. |

**2. Questionnaire**

**Task Force No. 1**

1. If it were apparently clear that your child was unlikely to secure regular employment after completing education at Form IV, would you continue paying for the education of that child? Or would you consider directing such resources into projects that gave tangible benefits?
2. Would you say that education is responsible for alienating your child from the society? Conversely, why do you not send your child to school?
3. Do you think religion should be taught at school as a subject or should it be left to religious organizations to teach it in their own way?
4. For the Government to increase money available to education it would be necessary to transfer funds from other services. Would you then suggest that Government increases education budget to give more education at the expense of other services?
5. As an individual, would you be willing to spend more money on education and less on the other services? In other words, do you think you could from your available resources be willing to increase spending on education other things being equal?
6. What type and nature of employment would you like your child to take up as an identification of a successful person?
7. Would you encourage your child to take up employment in rural areas such as picking coffee; plucking tea; looking after cattle; clearing bushes or would you rather send him off to urban areas to search for employment which is difficult to find and often not available at all?
8. Would you consider that provision of more village polytechnics will increase employment opportunities?
9. What do you think the Government policy should be in order to encourage settlement in the rural areas and discourage the current rural emigration into urban areas?
10. Do you think the Government ought to make all schools co-educational or would you suggest that we ought to strictly have separate boys and girls secondary schools?
11. Would you like to see the Government giving more bursaries to girls or to boys in secondary schools?
12. Would you say that there is real need to build more Harambee secondary schools?
13. Since the Harambee schools are part and parcel of our school system, would you favour a centrally organized board to exercise control and provide educational services to the Harambee institutions?

**Task Force No. 2**

14. Communication—what language of communication is suitable for primary schools?
15. Duration of primary—what do parents want the length of pre-primary and primary schools to be?
16. What would the parents want their children to be able to do after the primary cycle?
17. What will happen in 1977 when the present free education group reaches Std. 4? Would the children stop there (as a terminal stage)?

18. What do you think about the CPE? If it is abolished how would selection for secondary education be done?
19. Do all eligible children go to school with special reference to the nomadic and other isolated communities?
20. Will all the children go through pre-primary education? At what age should children go into pre-primary and primary schools?
21. What do you think about compulsory and universal primary education?
22. How would all children (especially in nomadic areas) be encouraged to go to and remain in school?

**Task Force No. 3**

23. Would you like secondary school pupils to be taught agriculture, needlework, cookery, childcare, woodwork, metalwork, typing and accounts? How would you like these subjects to be taught?
24. How would people like the examinations in January or March instead of holding them at the end of the year? What is the relevance of continuous assessment in secondary education?
25. How would Harambee schools be integrated into the rest of the system?
26. How should the school system serve the cause of rural development in this country?
27. How should the handicapped children be looked after?
28. How many university colleges should Kenya have during the next 10 years?
29. Should University admission be limited to adults?
30. Should we have work experience (work interludes) before graduation from University?
31. Do those who have done Forms V and VI have confidence in the work covered during the two years?
32. What problems face Harambee schools and how should they be solved?
33. What suggestions have you on expanding secondary education while keeping costs as low as possible?
34. How would you like recruitment into Primary Teachers Colleges conducted to ensure the right people get into training colleges.
35. What are the causes of drop-outs among the teachers?

**Task Force No. 4**

36. What suggestions do you make for improving the link between schools and training institutions so that trainees are not made to repeat some of the work they did at school?
37. What do you prefer, formalized technical education or on-the-job training? Give reasons.
38. A number of colleges of technology have been built or are in the process of being constructed. What suggestions do you offer to improve their planning, co-ordination, financing and course of construction?
39. What advantages do people get from organized adult education courses?

40. At present education and training is undertaken by the Ministry of Education, other Government Ministries and private institutions. What suggestions do you make for improving the co-ordination of these activities?

41. Do the pupils in primary and secondary schools know the available careers for them? If not what should be done to improve the situation?

42. What do you understand about guidance and counselling?

43. Have you any suggestions to make regarding organization, management and planning of education in order to facilitate quick decision-making and effective administration at the district levels?

44. Kenya School Equipment Scheme supplies equipment and stores to all primary schools. Have you any suggestions for improving the service?

45. Secondary schools receive a grant per head to purchase equipment and stores. Would you like a scheme like the one for primary schools to be instituted for secondary schools and why?

## REFERENCES

### Chapter 1—The Nation's Social, Cultural and Economic Values

REPUBLIC OF KENYA, 1965. Sessional Paper No. 10 on African Socialism and Its Application to Planning in Kenya. Government Printer, Nairobi.

KENYATTA, PRESIDENT J., 1976. Kenyatta Day message to the nation. 20th October, 1976. Government Printer, Nairobi.

KANU, 1963 and 1969. Kanu manifesto. One Kenya, one nation forward ever. Kenya African National Union, Nairobi.

TOWEETT, HON. T., 1976. Culture. Paper presented to NCEOP. Ministry of Housing and Social Services.

DONDERS, J. G., and MBULA, J., 1976. Ethical values and education in Kenya. Paper presented to NCEOP. University of Nairobi, Kenya.

MBITHI, P., 1976. Culture and education. Paper presented to NCEOP. University of Nairobi, Kenya.

MULE, H., 1976. Ideology, economic setting and educational system. Paper presented to NCEOP. Ministry of Finance and Planning, Kenya.

MUTISO, G. C. M., 1976. Kenya's coded ideology. Comments on the 1965 Sessional Paper No. 10 on African Socialism. Paper presented to NCEOP. University of Nairobi, Kenya.

INDIRE, F. F., 1976. Education in a changing society. Paper presented to NCEOP. University of Nairobi, Kenya.

### Chapter 2—Education and Development, Including the Distribution of Incomes

REPUBLIC OF KENYA, 1976. Curriculum in Kenya Government Schools. Background paper presented to NCEOP. Ministry of Education, Kenya.

MULE, H., 1976. Education in relation to economic development to 1985. Paper presented to NCEOP (Kericho Seminar). Ministry of Finance and Planning, Kenya.

NYAMU, H. J., 1975. Utility education. Journal of Kenya Institute of Administration, Lower Kabete.

TODARO, M. P., 1976. Education and national development in Kenya. Paper presented to NCEOP. University of Nairobi, Kenya.

HOPCRAFT, P., 1976. Does education increase farm production? Paper presented to NCEOP. University of Nairobi, Kenya.

MUTUGI, J. M., and MURAYA, A. H., 1976. Work interludes. Background paper presented to NCEOP. Ministry of Education, Kenya.

MUTHOKA, P. W., 1976. Possibility of introducing work interludes into the education system. Background paper presented to NCEOP. Ministry of Education, Kenya.

BADERIA, G. S., 1976. Evolving a functional educational structure for Kenya—some issues and suggested solutions. Kenya Institute of Education, Nairobi.

ODHIAMBO, D., 1976. Science education in Kenya. Paper presented to NCEOP. University of Nairobi, Kenya.

INDIRE, F. F., 1976. An outline proposal for reorganizing education system in Kenya. Paper presented to NCEOP. University of Nairobi, Kenya.

GACII, P., 1976. Science, technology and culture. Paper presented to NCEOP (Kericho Seminar). National Council of Science and Technology, Kenya.

KING, K., 1976. Investment in skills: a review of the relationship between the structure of small industry in developing countries and pre-vocational learning systems. Centre for African Studies, Edinburgh University.

KAMAU, J., 1976. Harambee. Paper presented to NCEOP. National Christian Council of Kenya.

MUTISO, G. C. M., 1976. Community Harambee effort. Paper presented to NCEOP. University of Nairobi.

MUTISO, G. C. M., 1976. Development of Harambee institutes of science and technology. Paper presented to NCEOP. University of Nairobi, Kenya.

REPUBLIC OF KENYA, 1976. The general policy of Harambee institutes of technology. Background paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

MUTISO, G. C. M., 1976. A note on the fund-raising potential of Harambee. Paper presented to NCEOP. University of Nairobi, Kenya.

WORLD BANK, 1974. Education. Sector working Paper. Washington, U.S.A.

REPUBLIC OF KENYA, 1974. Development Plan 1974 to 1978. Government Printer, Nairobi.

WORLD BANK, 1975. Kenya: into the second decade. Washington, U.S.A.

GODFREY, M., 1976. Education, training, productivity and income: a Kenyan case-study. Institute of Development Studies, University of Sussex, U.K.

GRIFFIN, G. W., 1976. The Kenya National Youth Service. Text of a broadcast talk. Paper presented to NCEOP. National Youth Service, Kenya.

**Chapter 3—Education and Rural Development**

OMINDE, S. H., 1976. Development of rural areas and education requirements. Paper presented to NCEOP (Kericho Seminar). University of Nairobi, Kenya.

MBOGUA, J. P., 1976. Problems of urbanization and mass education. Paper presented to NCEOP (Kericho Seminar). Nairobi City Council.

WANYOIKE, J., 1976. Education in urban areas. Paper presented to NCEOP (Kericho Seminar). Nairobi City Council.

MBITHI, P., 1976. Education and rural development. Paper presented to NCEOP. University of Nairobi, Kenya.

RAGUI, K., 1976. Co-operatives and rural development. Paper presented to NCEOP. University of Nairobi, Kenya.

UNICEF, 1973. New paths to learning for rural children and youth. International Council for Educational Development, New York, U.S.A.

WORLD BANK and UNICEF, 1975. Education for rural development. Case studies for planners. International Council for Educational Development, New York, U.S.A.

## Chapter 4—Education and Employment

REPUBLIC OF KENYA, 1973. Sessional Paper No. 10 on Employment. Government Printer, Nairobi.

REPUBLIC OF KENYA, 1976. Destinations of school-leavers. Background paper presented to NCEOP.

MBITHI, P., 1976. Education and unemployment: unemployable products of education. Paper presented to NCEOP (Kericho Seminar). University of Nairobi, Kenya.

EDGREN, G., 1976. Education and training for the labour market in Kenya. Paper presented to NCEOP (Kericho Seminar). Ministry of Labour, Kenya.

REPUBLIC OF KENYA, 1976. A nine-year basic education system: would it solve the unemployment problem? Background paper presented to NCEOP. Ministry of Education, Kenya.

TODARO, M. P., 1976. The "direct" and "indirect" (multiplier) costs of the projected gap between school-leavers and new wage and salary employment—1975 to 1985: an illustration. Discussion paper presented to NCEOP. University of Nairobi, Kenya.

I.L.O., 1972. Employment, incomes and equality. A strategy for increasing productive employment in Kenya. Geneva.

KING, K., 1976. Jobless in Kenya. A case study of the educated unemployed. University of Nairobi, Kenya.

## Chapter 5—Access to Education

KINYANJUI, K., 1976. Regional distribution of education and differentiation of schools in Kenya. University of Nairobi, Kenya.

WATUMA, S. T., 1976. Nomadic and other isolated communities. Paper presented to NCEOP. Ministry of Education, Kenya.

KINYANJUI, K., 1976. Some aspects of intra-district distribution of education: the case of Baringo District. University of Nairobi, Kenya.

KRYSTALL, A. (MRS.), 1976. The education of women since Independence. Paper presented to NCEOP. University of Nairobi, Kenya.

## Chapter 6—Basic Education

REPUBLIC OF KENYA, 1973. Sessional Paper No. 10 on Employment. Government Printer, Nairobi.

REPUBLIC OF KENYA, 1975. Nine year primary education. Background paper presented to NCEOP. Ministry of Education, Kenya.

WACHIRA, S. M., 1976. Disciplining the age of graduation from primary school. Background paper presented to NCEOP. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Proposals for nine-year education available for all. Background paper presented to NCEOP. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. A nine-year basic education system. Background Paper No. 7 (*a*) presented to NCEOP. Ministry of Education, Kenya.

SOMERSET, H. C. A., 1976. An item analysis of the 1974. Certificate of Primary Education. Paper presented to NCEOP. University of Nairobi, Kenya.

MAKAU, B., 1976. Examinations and certification. Background paper presented to NCEOP. Ministry of Education, Kenya.

BAKHDA, S., 1976. A Bird's Eye view of the state of Primary Mathematics in Kenya.

REPUBLIC OF KENYA, 1976. Progress towards universal primary education. Background Paper No. 6 presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

KENYA INSTITUTE OF EDUCATION, 1976. Memorandum on Kiswahili. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Primary education. Paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Curriculum in Kenya Government schools. Background paper presented to NCEOP. Ministry of Education, Kenya.

INDIRE, F. F., 1976. An outline proposal for reorganizing education system in Kenya. Paper presented to NCEOP. University of Nairobi, Kenya.

SOMERSET, H. C. A., 1976. A comparison of mathematics achievement in standards six and seven. Paper presented to NCEOP. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1975. The primary education sector. Summary of recent work by the Planning Unit. Ministry of Education, Kenya.

O'CONNOR, J. P., 1976. Mathematics in primary schools. Background paper presented to NCEOP. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1964. Kenya Education Commission Report. Chairman: S. H. Ominde. Government Printer, Nairobi.

REPUBLIC OF KENYA, 1972. A study of curriculum development in Kenya. Chairman: G. S. Bessey. Government Printer, Nairobi.

KANINA, H. J., GETAO, A. N., MUHORO, J. M. G., and LOCKHART, L. A., 1976. Pre-primary and primary education. Paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

**Chapter 7—Secondary Education**

WOOD, J. M., 1976. An examination of the desirability and feasibility of consolidating secondary education into large units. Paper presented to NCEOP. Ministry of Education, Kenya.

OLUOCH, G. P., 1976. Localization of curricula: an examination of the extent and adequacy of localization of secondary school curricula in Kenya. Kenya Institute of Education, Nairobi.

MAKAU, B. M., 1976. Poor performance in science and mathematics in secondary schools and how to remedy it. Background paper presented to NCEOP. Ministry of Education, Kenya.

ESHIWANI, G. S., 1976. Mathematics and science education in Kenya. Paper presented to NCEOP. University of Nairobi, Kenya.

SINCLAIR, M., 1976. Science and mathematics. Background Paper No. 3 presented to NCEOP. Ministry of Education, Kenya.

KENYA SECONDARY SCHOOLS HEADS ASSOCIATION, 1976. Memorandum on education. Paper presented to NCEOP. Nairobi, Kenya.

OLUOCH, G. P., 1976. Major features of the content, methods and structure of a proposed secondary education. Kenya Institute of Education, Nairobi.

KANINA, H. J., GETAO, A. N., MUHORO, J. M. G., and LOCKHART, L. A., 1976. Secondary and technical secondary education. Paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

**Chapter 8—Special Education**

KENYATTA, K. W. (MISS), and ABILA, C. (MRS.), 1976. Special education. Background paper presented to NCEOP. Ministry of Education, Kenya.

SWANSBURY, W. G., 1976. Special education. Paper presented to NCEOP (Kericho Seminar). Salvation Army, Kenya.

SWANSBURY, W. G., 1976. Special education: secondary education and beyond. Paper presented to NCEOP. Salvation Army, Kenya.

REPUBLIC OF KENYA, 1964. The care and rehabilitation of the disabled. Report of an *ad hoc* committee under the chairmanship of the then Hon. E. N. Mwendwa.

REPUBLIC OF KENYA, 1974. Development Plan 1974 to 1978. Government Printer, Nairobi.

**Chapter 9—University Education**

MALECHE, A. J., 1976. University education. Paper presented to NCEOP (Kericho Seminar). University of Nairobi, Kenya.

RAMTU, J. K. (MRS.), 1976. Kenyatta University College. Paper presented to NCEOP (Kericho Seminar). Kenyatta University College, Nairobi.

REPUBLIC OF KENYA, 1976. Higher education for development. In "African Regional Report". Summary paper presented to NCEOP. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. University education in Kenya: statistics and analysis. Background paper presented to NCEOP. Ministry of Education, Kenya.

KARANJA, J. N., 1976. University education. Paper presented to NCEOP. University of Nairobi, Kenya.

REPUBLIC OF KENYA, 1974. Higher Education Bill (Draft). Ministry of Education, Kenya.

UNIVERSITY OF NAIROBI, 1976. Report of the Senate Committee on post-graduate studies. Ministry of Education, Kenya.

UNIVERSITY OF NAIROBI, 1972. Report of the University Grants Committee for 1972 to 1975.

REPUBLIC OF KENYA, 1974. Development Plan 1974 to 1978. Government Printer, Nairobi.

**Chapter 10—Technical and Other Forms of Post-School Vocational Training**

GETONGA, J., 1976. Institutes of technology. Paper presented to NCEOP (Kericho Seminar). Murang'a Institute of Technology, Kenya.

REPUBLIC OF KENYA, 1976. Information on Harambee institutes of technology. Background paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. The Harambee institutes of technology. Paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

WAMAI, S., 1976. Employers' requirements in relation to technical education. Paper presented to NCEOP (Kericho Seminar). Metal Box Kenya Limited, Nairobi.

KOMBO, R., 1976. Employers' requirements in relation to technical education. Paper presented to NCEOP (Kericho Seminar). Federation of Kenya Employers.

COURT, D., 1976. Village Polytechnics. Paper presented to NCEOP. University of Nairobi and Rockefeller Foundation, Kenya.

MUTISO, G. C. M., 1976. Technical and vocational training. Paper presented to NCEOP. University of Nairobi, Kenya.

HALLIWELL, H., 1976. Strategies for vocational education. Paper presented to NCEOP. Kenya Polytechnic, Nairobi.

ODERA-OTENG, S., 1976. Industrial training in Kenya. Background paper presented to NCEOP. Ministry of Labour, Kenya.

GODFREY, M., 1975. Towards a long term plan for industrial training in Kenya. UNDP/ILO.

KENYA and MOMBASA POLYTECHNICS, 1976. Vocational education and the role of the polytechnics. Paper presented by the Principals to the NCEOP. Nairobi and Mombasa, Kenya.

REPUBLIC OF KENYA, 1976. Applied education. Ministry of Education, Kenya.

GAKUNJU, Z. K., 1976. Business education. Paper presented to NCEOP (Kericho Seminar). Business Executive and NCEOP Member, Nairobi.

**Chapter 11—Continuing and Adult Education**

KIHUMBA, S., 1976. Illiteracy and national development. Paper presented to NCEOP (Kericho Seminar). Ministry of Housing and Social Services, Kenya.

MACHARIA, D., 1976. Adult and other forms of continuing education. Paper presented to NCEOP (Kericho Seminar). University of Nairobi.

KRYSTALL, E., 1976. Adult education for the improvement of the quality of family life and community life. Paper presented to NCEOP. Food and Agricultural Organization, Kenya.

GANDA-BEYO, A. F. O., 1976. Financing and fee structure of adult education. Background paper presented to NCEOP. Ministry of Housing and Social Services, Kenya.

UNESCO, 1972. Learning to be. The world of education today and tomorrow. Harrap, London.

REPUBLIC OF KENYA, 1971. Who pays for adult education in Kenya. Board of Adult Education, Kenya.

MUTUGI, J. M., 1976. Workers' education. Ministry of Labour, Kenya.

GAKURU, O. N. N., SOMERSET, H. C. A., and WALLIS, M., 1976. The Kenya functional literacy programme: an evaluation. University of Nairobi, Kenya.

CATLETT, R. W., 1976. Towards a national continuing education policy. Paper presented to NCEOP. University of Nairobi, Kenya.

### Chapter 12—Teachers

MBITI, D., 1975. Primary teacher education. Paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Pre-school education. Background paper presented to NCEOP. Ministry of Education, Kenya.

KRYSTALL, A. (MRS.), 1976. Pre-primary education: structure and policy. Paper presented to NCEOP. University of Nairobi, Kenya.

KENYA INSTITUTE OF EDUCATION, 1976. Professional assessment of nursery education. Background paper presented to NCEOP. Ministry of Education, Kenya.

GAKURU, O. N. N., 1976. Pre-primary education in Kenya. Background paper presented to NCEOP.

REPUBLIC OF KENYA, 1976. Secondary level teacher education. Background paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

WACHIRA, S. M., 1975. General survey on secondary school teachers. Ministry of Education, Kenya.

INDIRE, F. F., 1976. Teacher education for secondary schools and Teacher Training Colleges. Paper presented to NCEOP (Kericho Seminar). University of Nairobi, Kenya.

MBOGHO, A. W., 1976. Secondary teacher education and teacher colleges. Paper presented to NCEOP (Kericho Seminar). Kenya Science Teachers' College, Nairobi.

FACULTY OF EDUCATION, 1976. Secondary teacher and other related educational programmes. Paper presented to NCEOP. University of Nairobi, Kenya.

FACULTY OF EDUCATION, 1976. Nine years of primary education and four years of secondary education: implications for teacher education. University of Nairobi, Kenya.

### Chapter 13—Education Materials and Equipment

LANG'AT, S. C., 1976. Book publishing and distribution. Paper presented to NCEOP. Jomo Kenyatta Foundation, Nairobi.

NDUNG'U, G., 1976. Production and distribution of education supplies. Paper presented to NCEOP. Ministry of Education, Kenya.

FERNANDES, L. M., 1976. Book publishing and distribution. Paper presented to NCEOP. Jomo Kenyatta Foundation, Nairobi.

REPUBLIC OF KENYA, 1976. Production and distribution of science kits. Paper presented to NCEOP. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Educational media service. Ministry of Education, Kenya.

NGUGI, J. N., 1976. Prices of books 1977. Paper presented to NCEOP. Ministry of Education, Kenya.

ALLPRESS, R. S., 1976. The role of the Kenya Institute of Education in the development production and distribution of educational materials and equipment. Kenya Institute of Education, Nairobi.

SCHOOL EQUIPMENT PRODUCTION UNIT, 1976. Production and distribution of science kits. Kenya Science Teachers' College, Nairobi.

### Chapter 14—Organization of National Examinations

MAKAU, B. M., 1976. Examinations and certification. Background paper presented to NCEOP. Ministry of Education, Kenya.

SOMERSET, H. C. A., 1976. An item analysis of the 1974. Certificate of Primary Education. University of Nairobi, Kenya.

SOMERSET, H. C. A., 1976. Some preliminary results of the K.I.E. primary mathematics achievement survey. University of Nairobi, Kenya.

MAKAU, B. M., 1976. An analysis of the 1975 E.A.C.E. results for school candidates in Kenya. Ministry of Education, Kenya.

MAKAU, B. M., 1976. The organization of secondary level examinations. Background paper presented to NCEOP. Ministry of Education, Kenya.

SOMERSET, H. C. A., 1976. A comparison of mathematics achievement in standards six and seven. Paper presented to NCEOP. University of Nairobi, Kenya.

### Chapter 15—Management of Education and Training

M'MWIRICHIA, G. R., 1976. Management of education. Paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

M'MWIRICHIA, G. R., 1976. Management of education. Background paper presented to NCEOP. Ministry of Education, Kenya.

OBASO, J. H., 1976. Modern techniques in management and how these may be applied in education management and administration in Kenya. Paper presented to NCEOP. Kenya Institute of Administration.

KAMUNGE, J. M., 1976. The role of the Teachers' Service Commission. Paper presented to NCEOP (Kericho Seminar). Ministry of Education, Kenya.

KAMOTHO, HON., J. J., 1976. Management and administration of education. Paper presented to NCEOP. Member of Parliament.

GITUKU, J. W., 1976. Schools guidance and counselling service. Paper presented to NCEOP. Ministry of Education, Kenya.

WATUMA, S., 1976. Guidance and counselling. Background paper presented to NCEOP. Ministry of Education, Kenya.

MUNGAI, J. M., 1972. Careers in medicine: questions and answers in secondary schools. Paper presented to NCEOP. University of Nairobi, Kenya.

SOMERSET, H. C. A., 1976. Information and selection for further education, training and careers in Kenya. Paper presented to NCEOP. University of Nairobi, Kenya.

OMONDI, I. J., 1976. Guidance and counselling service in educational institutions. Paper presented to NCEOP. Kenyatta University College.

GATIMU, G., and GATU, J., 1976. Operation of the "Education Act, 1968". Paper presented to the Minister for Education and NCEOP. Christian Churches' Education Association and the Kenya Catholic Secretariat.

OMONDI, I. J., 1976. Management of education: higher education. Paper presented to NCEOP. Kenyatta University College, Nairobi.

ASSOCIATION OF LOCAL GOVERNMENT AUTHORITIES OF KENYA, 1976. Evidence to the National Committee on Educational Objectives and Policies. Paper presented to NCEOP. Nairobi City Council.

REPUBLIC OF KENYA, 1971. Report of a Commission of Inquiry. (Public Service Structure and Remuneration.) Chairman: D. N. Ndegwa. Government Printer, Nairobi.

REPUBLIC OF KENYA, 1974. Sessional Paper No. 5. Proposals by the Government of Kenya for acceptance and implementation of the recommendations contained in the Report of the Commission of Inquiry (Public Service Structure and Remuneration Commission) 1970/1971. Government Printer, Nairobi.

**Chapter 16—Co-ordination of Education and Training**

NYAMU, H. J., 1976. Kenya Institute of Administration. Paper presented to NCEOP (Kericho Seminar). Office of the President, Kenya.

MBURU, J. S., 1976. Agricultural training. Paper presented to NCEOP (Kericho Seminar). Ministry of Agriculture, Kenya.

OLUOCH, J. N., 1976. Co-operative education and training in Kenya. Paper presented to NCEOP (Kericho Seminar). Ministry of Co-operative Development, Kenya.

OLUOCH, J. N., 1976. Co-operative education and training in Kenya. Supplementary paper presented to NCEOP (Kericho Seminar). Ministry of Co-operative Development, Kenya.

KIIO, J., 1976. Training programmes. Paper presented to NCEOP (Kericho Seminar). Ministry of Natural Resources, Kenya.

ONDIEKI, F. N., 1976. Business education. Paper presented to NCEOP (Kericho Seminar). Ministry of Commerce and Industry, Kenya.

ONYONI, K., 1976. Training programmes. Paper presented to NCEOP (Kericho Seminar). Ministry of Housing and Social Services, Kenya.

KANGWANA, J., 1976. Training programmes. Paper presented to NCEOP (Kericho Seminar). Ministry of Information and Broadcasting, Kenya.

MBUGUA, S. J., 1976. Industrial training. Paper presented to NCEOP (Kericho Seminar). Ministry of Works, Kenya.

OGEMBO, S. B., 1976. Training programmes. Paper presented to NCEOP (Kericho Seminar). Ministry of Power and Communications, Kenya.

KARUGU, J. B., 1976. Legal education in Kenya. A review of the past eleven years and look into the future. Paper presented to NCEOP (Kericho Seminar). Office of the Attorney-General, Kenya.

MIGUE, M. R., 1976. Training programmes. Paper presented to NCEOP (Kericho Seminar). Ministry of Health, Kenya.

MUTUGI, J. M., and ODERA-OTENG, S., 1976. Industrial training. Paper presented to NCEOP (Kericho Seminar). Ministry of Labour, Kenya.

GITHAIGA, C. G., 1976. Kenya National Youth Service. Paper presented to NCEOP (Kericho Seminar). Ministry of Labour, Kenya.

KUNGU, N. S., 1976. Training programmes. Paper presented to NCEOP (Kericho Seminar). Ministry of Water Development, Kenya.

BOIT, G. S. K., 1976. Training programmes. Paper presented to NCEOP (Kericho Seminar). Ministry of Home Affairs, Kenya.

KIBINGE, L. O., 1976. Training for foreign service in Kenya. Paper presented to NCEOP (Kericho Seminar). Ministry of Foreign Affairs, Kenya.

WANDERA, J. D., 1976. Training programmes. Paper presented to NCEOP (Kericho Seminar). Ministry of Tourism and Wildlife, Kenya.

WAIBOCI, J., 1976. Training in the private sector from the point of view of Kenyanization and immigration. Paper presented to NCEOP (Kericho Seminar). Ministry of Labour, Kenya.

GATU, J. G., 1976. Role of religious and other voluntary organizations in education. Paper presented to NCEOP (Kericho Seminar). Presbyterian Church of East Africa.

REPUBLIC OF KENYA, 1976. Educational media service. Paper presented to NCEOP. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1967. Report of the Agricultural Education Commission. Chairman: J. R. Weir. Government Printer, Nairobi.

REPUBLIC OF KENYA, 1972. Report of the Training Review Committee. Chairman: W. N. Wamalwa. Government Printer, Nairobi.

### Chapter 17—Resources for Education and Training

REPUBLIC OF KENYA, 1975. Sessional Paper No. 4 on Economic Prospects and Policies. Government Printer, Nairobi.

REPUBLIC OF KENYA, 1976. Financing of education. Background Paper No. 1. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Financing of education. Addendum to Background Paper No. 1. Recurrent expenditure on education and training in all Ministries. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Financing of education. Follow-up paper to "Memorandum by the Ministers for Education and Finance and Planning". Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Financing of education from money outside Government finances. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Secondary education sector costs. Paper for working party on financing of education presented to NCEOP. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. The impact of removal of fees from Primary 1 to 4. Paper for working party on financing of education. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Projections of recurrent costs of alternative education programmes. Background paper presented to NCEOP. Ministry of Education, Kenya.

REPUBLIC OF KENYA, 1976. Projections of recurrent costs of alternative education programmes. Addendum paper presented to NCEOP. Ministry of Education, Kenya.

FINE, J., 1974. The financial crisis in Kenya education: some perspectives on policy. Ministry of Finance and Planning, Kenya.

KEBUCHI, C. N., 1976. Education and the Government budget to 1985. Paper presented to NCEOP (Kericho Seminar). Ministry of Finance and Planning, Kenya.

REPUBLIC OF KENYA, 1976. Recurrent costs of alternative education programmes. Third version. Background paper presented to NCEOP. Ministry of Education, Kenya.

ANDERSON, P., 1976. Comment on background paper presented to NCEOP on projections of recurrent costs of alternative education programmes. Ministry of Finance and Planning, Kenya.

REPUBLIC OF KENYA, 1976. The allocation of scarce resources within education and training. Background paper presented to NCEOP.

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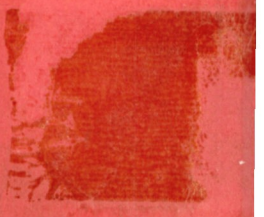
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