

CHAPTER 3

EARLY CHILDHOOD CARE AND DEVELOPMENT EDUCATION

3.1 INTRODUCTION

The Early Childhood Care and Development Education (ECCDE) sub-sector constitutes household, community, and state efforts to provide integrated development for children from birth to the age of entry into primary school. The nurture of this age group - currently constituting about 20% of Kenya's population - is not only the natural right of each child, but also a key variable in developing the country's human resource base. Integrated development means nurture of the whole personality of the child, encompassing growth of the child's physical, mental, and socio-emotional attributes. The provision of security and adequate nutrition, and promotion of good health are recognised as constituting the foundation of proper growth of children. There is research evidence that the child's fastest growth in physical, mental, and socio-emotional characteristics takes place during the age of 0-5 years. The child is most vulnerable to environmental influences during this period. Moreover, several studies show that growth deficiencies that occur during this period are difficult and sometimes impossible to reverse.

In traditional African communities, adequate and elaborate child care and development systems are provided by the household including the extended family. However, the onset of modernisation has generated rising pressures that necessitate the development of non-family daytime care institutions for children. During the twentieth century, in Kenya socioeconomic changes have increasingly manifested themselves in the form of, *inter alia* (a) the money economy; (b) urbanisation associated with high rates of migration from rural areas; (c) growing multiple roles of mothers; (d) rise in female-headed households; and (e) demand for formal education. While rapid modernisation is not universal in Kenya, as a rising proportion of families become modernised, traditional child care systems are increasingly becoming inappropriate. In way of alternatives to traditional systems, affected parents have resorted to employing child-minders (*ayahs*), and/or relying on institutionalised collective care in kindergartens, nurseries and day care centres - often referred to as pre-schools.

The socioeconomic change that has led to the rise of pre-schools has brought into focus disparity in the development of Kenya society. The emergence of the pre-school is associated with areas and communities in which, due to the distortions of colonial penetration, relatively early exposure to modern education helped to pave the way to rising household incomes. In turn, rising incomes have made it possible for modernising groups to respond to child care and development, not only through provision of pre-schools but also better nutrition and health care. In pursuit of more and better education for their children, the modernising groups have increasingly used pre-schools as a head-start in that most of these institutions concentrate on the 3Rs as preparation for entry into primary school. In contrast, in

areas - particularly in ASAL - in which modern education was introduced relatively late, economic development has been slow and in some cases incomes have declined. Disparity in household incomes has further been compounded by the emergence of a rising urban slum population characterised by poor economic means. Poor nutrition and insufficient health care, as well as inadequate opportunities for modern education, constitute the most serious problem facing these disadvantaged communities. Among them, malnourishment, and lack of treatment for curable ailments and control measures (e.g. immunisation) against preventable diseases threaten the healthy growth of children, and contribute to low enrolments and high dropout rates in primary schools.

ECCDE is designed to address two interrelated but different problems. First, ECCDE aims at improving the conditions under which children among poor communities are growing. The priority is for the state to work with households and communities to build an infrastructure through which basic growing needs of children - nutrition and health care in particular - are provided. This infrastructure is seen as a prerequisite for further development into the pre-school sphere. Second, ECCDE aims at expanding and improving the quality of the existing pre-school system by (a) ensuring provision of basic growing needs as specified above, and (b) providing an appropriate curriculum balance between development of cognitive skills on one hand and on the other, nurture of socio-emotional characteristics.

3.2 OBJECTIVES

Bearing in mind the foregoing, the overall goal of ECCDE will be to improve the quality of life of children aged 0-6 years. During the plan period, the following objectives will be adopted:

- 3.2.1 To improve the nutrition and health status of children and to provide them with a secure physical and psycho-social setting;
- 3.2.2 To develop integrated nurture of children's affective, cognitive and physical attributes;
- 3.2.3 To develop children's knowledge of the physical and biological world;
- 3.2.4 To develop children's self confidence and free expression, spiritual and social values, and appreciation of other people's needs and views.

3.3 POLICIES

Towards realisation of the foregoing objectives, GoK policy will be geared to improving the efficiency and effectiveness of ECCDE through (a) integrated

provision of children's growth needs, and (b) development of family and community capacities in their roles of ensuring proper growth of children. Development of ECCDE will be guided by the following specific policies:

- 3.3.1 The improvement of various aspects of children's development, currently under several ministries (*inter alia* education, health, culture and social services, home affairs, and local government) will be integrated into a single programme covering all children in the age group 0-6 years.
- 3.3.2 Working to central government guidelines and with support from the public budget, LGAs will have responsibility for detailed planning and management (including the aspects of cost and finance) of the children's programme.
- 3.3.3 Emphasis will be placed on developing the capacity of families and communities to actively participate in the children's programme. To this end, planning and implementation will give attention to (a) impartation of knowledge of children's growth needs among parents, care givers, and communities, (b) equitable mobilisation and allocation of resources, and (c) role of parents and communities in committees and bodies charged with responsibility for various aspects of the children's programme.
- 3.3.4 Bearing in mind that women influence child development more fundamentally than men, in developing parental, community, and state capacity, particular attention will be given to empowering women at all levels of the programme.
- 3.3.5 While attention will be given to raising pre-school enrolments and improving quality, priority will be given to raising the nutrition and health status of the 0-6 age group particularly in disadvantaged communities. Improved nutrition and health are seen as necessary conditions for increasing enrolments, retention and achievement in pre- and primary schools. This is particularly important in areas and communities in which, due to unfavourable demand and supply factors, pre-schools are not established and thus, children enrol in primary school directly from home.

3.4 OVERVIEW OF THE CURRENT STATUS OF ECCDE

3.4.1 Need for Integrated Provision of Children's Growth Needs

Although change towards integrated provision is beginning to occur, various non-family efforts to improve children's development are characterised by uncoordinated approaches, which in some cases result in costly duplication. For instance, (i) provision of health services (including community education on health

and nutrition) is the responsibility of the Ministry of Health (MoH) and tends to be seen as different from food production which is the responsibility of the Ministry of Agriculture, Livestock Development and Marketing (MALDM); (ii) both MoH and MCSS run programmes in family life; (iii) the education of some children (e.g. orphans and children in especially difficult circumstances) is the responsibility of the Ministry of Home Affairs and National Heritage (MoHA&NH) rather than that of MoE; and (iv) while MoE is in charge of curriculum development and teacher training for pre-schools, LGAs are responsible for the remuneration of some teachers. While the involvement of the private sector, NGOs, and donors in the provision ECCDE is to a large extent responsible for the success that has been achieved, in some ways it detracts from emergence of a coordinated system.

With the development of the current ECCDE programme in the early 1990s, measures have been taken to improve coordination particularly at ministerial level (Republic of Kenya, 1996e). However, the emerging development pattern, in which MoE is playing the leading role, is in the top-down mode. The role of the local level, i.e. LGAs and communities, is reactive as opposed to being proactive. Equally important, the fact that MoE is taking the lead may unwittingly be sending signals to the effect that expansion and improvement of pre-school education, as opposed to those of nutrition and health, is the most important aspect of the children's programme. What is needed is a system which empowers the local level to identify its children's needs and to prioritise their provision in relation to other development needs. As pointed out by a representative of the UNO's World Food Programme (WFP) in a workshop on child health, nutrition and school participation, sustainable child development seems to largely dependent on evolution of policies and strategies that enhance the capacities of households and communities such that they are able to produce sufficient food quantities (Vynect and Nkinyangi, 1991).

3.4.2 Access and Participation

The emphasis in ECCDE has been on provision of institutionalised education to children in the 3-6 year age group. The need for parents (particularly mothers) and child-minders to be equipped with knowledge that enhances their ability to nurture balanced development of the 0-3 year olds has received inadequate attention.

Table 3a shows that in the early 1990s, enrolments in pre-schools for the 3-6 age group registered a satisfactory growth rate. By 1994 a GER of 35% had been attained.

Table 3a. ENROLMENT IN PRE-SCHOOLS, 1989-94 ('000s)

YEAR	MALE (M)	FEMALE	TOTAL (T)	% GROWTH (T)	M:F RATIO
1989	410	392	802	-	51:49
1990	431	414	845	+5.4	51:49
1991	439	424	863	+2.1	51:49
1992	438	421	859	-0.5	51:49

1993	472	452	924	+7.6	51:49
1994	485	467	952	+3.0	51:49

Source: MoE statistics

However, a large proportion of children entering primary school do not come through pre-school. In 1995 the number enrolling for the first year of primary school was about the same as the total enrolment in pre-school, and at 79%, the primary school GER was more than double the rate in pre-school. When analysed by district, as partially done in Table 3b, the pre-school enrolments reveal large disparities.

Table 3b. PRE-SCHOOL GER BY SELECTED DISTRICTS, 1994

HIGHEST GER		LOWEST GER	
Isiolo	66	Mandera	9
Mombasa	59	Wajir	17
Turkana	58	Tana River	19
Nyandarua	54	Siaya	21
Trans Nzoia	50	Garissa	23
Keiyo Marakwet	49	Marsabit	25
Samburu	44	Narok	26
Laikipia	44	West Pokot	28

Source: MoE statistics

As compared to Mombasa's GER of 59%, Nairobi had only 32%. This reflects the large number of unreached slum children in the capital city.

The foregoing data and information underscore the need to address the growth needs of children who reach the age of entry into primary school without the benefit of pre-school education.

3.4.3 Management and Financing

The regional disparity in enrolments and the low national pre-school GER (as compared to primary school) reflect the mode of provision. Pre-school education is provided through a partnership involving investment of public and non-public resources, with the latter meeting a much higher share of the costs. The GoK contribution to recurrent expenditure (about 0.1% of the 1994/95 MoE allocation as compared to over 50% for primary education) caters for little more than the personnel costs of the pre-school sections at headquarters and districts. About 70% of pre-primary institutions are

financed and managed by parents' associations, with the rest depending on other sponsors, such as LGAs, religious and welfare organisations, firms, and private entrepreneurs. Sponsors manage the institutions, and provide and maintain physical facilities, instructional and play materials, and pay teachers' salaries. In this dispensation, although parental perceptions of the value of pre-school education is a variable, household ability to pay is more important. The most affluent families are able to enrol their children in high cost pre-schools. At the other extreme, families whose incomes are below the poverty line cannot afford even the relatively low costs charged in community pre-schools. The plight of the poor has been exacerbated by rising household costs associated with retrenchment of LGA contributions to the pre-school system (CESA Team, 1994).

The assistance given to the pre-school system by NGOs and donor agencies has helped increase participation among disadvantaged communities. In this regard, the integrated development approach adopted in donor and NGO projects has led to appreciable success. These projects approach the establishment of pre-schools as an integral component of community-based efforts aimed at (i) improved health (provision of free school meals, cheap drugs, mosquito nets, clean drinking water, sanitation, de-worming, re-hydration therapy, administration of micro-nutrients, immunisation, and child growth monitoring); (ii) better food security and income-generation; and (iii) development of labor-saving technologies (Achola, 1995; Makau, 1995; Mugiri, 1995). To a large extent, donor and NGO assistance is responsible for the relatively high pre-school enrolments in ASAL districts such as Isiolo, Turkana and Samburu, and urban Mombasa (in spite of a large slum population). However, as indicated by districts with low enrolments (Table 3b), it would appear that donor and NGO assistance has not been able to evenly substitute for low public provision.

3.4.4 Relevance and Quality

The relevance and quality of child development in pre-school is adversely affected by a number of variables including a narrow perception of the role of pre-school; inadequacies in the managerial infrastructure, staffing, and physical facilities and instructional materials; and curriculum and teacher training issues.

- (a) *Need for Balanced Learning.* With regard to relevance, many parents perceive pre-school education as a means of giving a cognitive headstart to their children when they join primary schools. With the connivance of most primary school staff, parents want the pre-school to cover academic content which rightly belongs to the lower primary school curriculum. Where there is competition for entry into the best primary schools, the primary school headteachers administer literacy and numeracy tests to standard 1 aspirants and use the results as the key criterion for selection. As a consequence, not unlike in the primary school, drilling geared to memorisation of facts has become the principal teaching approach in many pre-schools. Thus, the ideal that ECCDE

should take the form of development of the whole personality of the child is undermined.

- (b) **Shortcomings in Management.** The pre-school system is characterised by a weak professional management infrastructure. There is lack of a national regulatory framework which, *inter alia* sets standards on registration, management norms, essential facilities and instructional resources, and learner achievement. The MoE's inspectors and field officers are expected to maintain standards in pre-schools, but a large proportion of these officers have not received training relevant to the development of children in the 0-6 year age group.
- (c) **Teacher Qualifications.** Teacher qualifications constitute a major problem in pre-schools. The MoE's guidelines on recruitment by communities and proprietors stipulate that a pre-school teacher should be at least 18 years of age, and acceptable to the community. Because (i) teachers have to be remunerated by the schools' owners; and (ii) most of the organisations who own pre-schools are unable to pay high salaries, many teachers have low academic qualifications. Some of the teachers are untrained primary school dropouts who probably owe their employment to a special affiliation with the sponsor or manager. As compared to high potential areas where teachers possess a KCPE qualification or higher, in disadvantaged areas - such as ASAL districts - pre-school teachers do not possess academic certificates that qualify them for a regular teacher training course. MoE statistics indicate that, nationally about 65% of pre-school teachers are not professionally trained. As indicated by the CESA Team (1994), some districts have much higher proportions of professionally untrained teachers, e.g. Bomet-87%, Mount Elgon-84%, Marsabit-84%, Meru-83%, Nyandarua-83%, Laikipia-82%, and Vihiga-81%.
- (d) **Pupils per Teacher Ratio.** Because most community pre-schools lack the financial capacity to employ sufficient numbers of teachers, they are unable to establish and maintain the recommended teacher-pupil ratio (PTR) of not higher than 34:1. According to the CESA Team (1994), PTRs exhibit considerable regional disparity. Areas with satisfactory ratios included Nairobi-34:1, Eldoret Municipality-32:1, and Baringo-34:1. Among others, the following had unacceptably high ratios: Turkana-504:1, Marsabit-330:1, Mount Elgon-316:1, Bomet-294:1, and Nyandarua-227:1.
- (e) **Curriculum and Teacher Development.** Both curriculum development and teacher training take a decentralised mode. NACECB develops general guidelines on curriculum and teacher training, and trains trainers who, at the DICECB level, undertake detailed development of materials and pedagogy based on local environments and contexts. While some success has been achieved, the system suffers from the following

shortcomings:

- (i) Because of resource constraints, only a small proportion of the large number of untrained teachers has been reached. The majority of untrained teachers are unable to undertake the detailed development of the curriculum including the production of children's materials.
- (ii) At all levels, in both quantitative and qualitative terms, the professional human resource base is not as strong as it should be. NACECE, and DICECEs need more staff with qualifications in ECCDE.
- (iii) Many child-minders (particularly mothers), who are expected to participate in the development of children's materials and curriculum implementation, lack relevant systematic knowledge particularly with regard to stimulation of children's cognitive growth (Gakuru et al., 1995).
- (iv) The effectiveness of activities at the district level is impaired by DICECEs' dependence on borrowed buildings owned by secondary schools, teachers colleges, and other public institutions.
- (v) The medium of instruction in most rural pre-schools is problematic. Mother tongue is the prescribed medium. Given that English is the medium of instruction from primary grade 4 upwards, some parents are pressurising for the adoption of English in rural pre-schools as is the case in the high quality equivalents in urban areas. Reading materials for pre-school children have been developed and published in about 20 vernaculars. However, publishers' unwillingness to produce materials for communities with relatively small populations is a limiting factor, and would seem to lend credence to the argument that consideration be given to adoption of a widely spoken language.

(f) **Facilities and Equipment.** Pre-school facilities and equipment exhibit great variety in terms of quality and quantity. The variables associated with this variety include the level of community awareness of the needs of pre-schools, resource capacity of sponsors, teacher qualifications, and the enthusiasm of the promoters of given pre-schools. Physical facilities range from permanent classrooms in private kindergartens in urban areas to wattle and mud classrooms or even 'under-trees' arrangements in some rural areas. Evaluation reports indicate that (i) many pre-schools are characterised by inadequacies in basic facilities such as properly ventilated classrooms, furniture suitable for children, kitchens, safe clean water,

playgrounds, and toilets; and (ii) few pre-schools have adequate quantities of instructional and play materials (CESA Team, 1994; Kenya Institute of Education, 1987 and 1990).

3.5 STRATEGIES

The following three complementary sets of strategies will be adopted in order to improve on the current status of ECCDE.

3.5.1 To raise access and participation:

- (a) develop ECCDE as a comprehensive programme covering all aspects of growth needs for children aged 0-6 years;
- (b) develop pre-schools (and primary schools where pre-schools do not exist) as community centres for delivery of health and nutrition services;
- (c) empower households and communities to play a more effective role in the development of their children;
- (d) improve equity by enhancing the provision of child development services to disadvantaged areas and communities.

3.5.2 To raise relevance and quality:

- (a) sensitise parents and child care givers and train them to participate fully in child development;
- (b) give training to sufficient numbers of the professional staff involved in ECCDE in general and in particular, pre-school teachers and MoE staff at headquarters and the field;
- (c) develop national guidelines for ECCDE in general and in particular, a professional framework to guide the establishment, management and financing of pre-schools;
- (d) improve the pre-school curriculum such that it leads to balanced development of children and smooth transition into primary school;
- (e) improve the formative monitoring, assessment of output, and evaluation of outcomes of ECCDE;
- (f) provide adequate physical facilities, equipment and instructional materials to DICECEs, pre-schools and other ECCDE centres.

3.5.3 To improve resource mobilisation, allocation and accountability:

- (a) develop ECCDE through prioritisation of the programme as part of the overall community development effort;
- (b) develop coordination in policy-making between central government ministries and departments with responsibilities for ECCDE;
- (c) strengthen collaboration between the state (central government and LGAs), households, communities, donors and NGOs in the delivery of ECCDE.

3.6 PROGRAMMES AND ACTIVITIES

In pursuit of the foregoing sets of strategies, activities - the combined effect of which is expected to be improved efficiency and effectiveness in ECCDE - will be carried out under the following interrelated programmes (i) legal and management framework, (ii) coordination at MoE headquarters, (iii) management of pre-schools at the local level, (iv) curriculum, and (v) development of the pre-school human resource.

3.6.1 Legal and Management Framework

The delivery of ECCDE will be made more effective through decentralisation of detailed management and financing to the local level, and strengthened coordination of general planning guidelines at the national level. These two approaches are expected to complement (i) GoK policy which stresses decentralised delivery of services (Republic of Kenya, 1986, 1994, and 1996c); (ii) current practice whereby households and other non-public providers are already largely responsible for financing and managing pre-school education; (iii) community-centred orientation of state programmes, and donor and NGO projects aimed at improving the economic and social welfare of households through enhanced income generation and improved nutrition and health; and (iv) on-going efforts to conceptualise and improve children's growth needs as an integrated function. The following measures will be taken:

- (a) *Children's Act.* The existing parliamentary bill will be re-drafted and enacted into a law which comprehensively defines the rights of children and approaches to improving children's welfare in aspects such as custody and protection, nutrition and health, and education. The law will give attention to coordination of public and non-public efforts, with emphasis being placed on the development of community-based children's services.

- (b) *The Local Government Act* will be amended to facilitate the decentralisation of the delivery of services to LGAs. The revenue base for LGAs will be strengthened to enable them to undertake the management and financing of services such as education, nutrition and health, and other aspects of children's welfare. Within each LGA, a suitable structure for managing delivery will be developed. For example, a DETB with an appropriate secretariat will be set up to manage education including pre-schools. The current duties of DICECE will be taken over by the DETB. LGAs will be expected to promote the active participation of households and communities in the development of children.
- (c) *Education and Training Act (ETA)*. The management of education and training will be streamlined under one Act of Parliament which will cover all aspects of the sector including those currently placed under the Education Act. The ETA will provide for the governance of pre-schools, e.g. in relation to registration and general regulations to guide professional management of the sub-sector under LGAs and other providers.
- (d) *The Early Childhood Development Implementation Committee (ECDIC)*. The membership of the current committee set up to oversee the implementation of the 1996-2001 World Bank supported project on childhood development (see Republic of Kenya 1996e:38) will be streamlined to reflect an appropriate balance in the representation of stakeholder GoK ministries. Indicative of a largely education orientation in the on-going project, the current ECDIC (chaired by the Permanent Secretary for Education) has a total of 15 members, with 8 representing MoE. The breakdown of the rest of the membership, comprising less than half of the total, is as follows: other stakeholder GoK ministries - 4, NGOs - 1, and others - 2. With the membership being pegged at 15, the streamlined ECDIC is expected to give more attention to the interests of MoH, MALDM, MCSS, MoLG, MoHA&NH, MPND, and the Ministry of Finance. This should pave the way for extension of the ECDIC mandate beyond the current project and thus, make the committee a vehicle for developing a national policy framework to guide a sustainable long-term children development programme. Bearing in mind that the target of policy is the progressive realisation of children's rights, consideration will be given to locating the leadership of the committee in the ministry responsible for coordinating the implementation of the proposed Children's Act (see 6.1.1 above).
- (e) *Comprehensive and Integrated Child Development Programme*. The main functions of ECDIC will be to establish a national policy framework which provides a base for actors at the local level to improve the efficiency and effectiveness of ECCDE. This function will entail establishment of a systematic information base (e.g. through evaluation of the processes and outcomes of the programme); preparation of

guidelines for community education with appropriate emphasis on aspect of ECCDE; and giving advice on the allocation of public funds and mobilisation of non-public resources. As part of its role in the mobilisation of non-public resources, ECDIC will be undertake coordination and collaboration with donors, NGOs and the private sector.

Technical guidelines over specific aspects of ECCDE, such as health or pre-school education, will continue to be the responsibility of the relevant line ministries, but ECDIC will have responsibility for the national policy framework on spheres whose development requires coordination between two or more ministries. For instance,

(i) *School Feeding Programmes.* Apart from the obvious nutritional and health dimension, which is of interest to MoH, these programmes constitute an important variable in the degree of success in participation in formal education under MoE, both in terms of curricular processes and outcomes. MCSS, MoLG and MoHA&NH recognise that the success of their efforts to provide protection and welfare to children to a large extent depends on the provision of adequate nutrition. MALDM, with responsibility for production and distribution of food, has an interest in the programmes. Moreover, MPND identifies food security for the whole population as a key variable in overall equitable development. NGOs and donors such as WFP, which are playing a major role in providing school feeding, are advocating for a system in which their assistance leads to long-term sustainability in efforts to feed not only children but also the whole population. Early in the plan period, particularly bearing in mind that the current WFP feeding project will expire in 2001, ECDIC will develop policy guidelines on sustainable approaches in providing adequate feeding of, *inter alia* children in the 0-6 years age group.

(ii) *Potential of Linkages Between Health Delivery and Formal Education.* ECDIC will develop a policy framework for assisting LGAs and grass root communities to plan and exploit the potential of synergy between health and formal education services. This will involve development and use of pre-schools and primary schools as centres through which MoH personnel deliver curative and preventive health services to children and adults. This approach is particularly important in disadvantaged areas where schools provide easily reachable focal points for community health, e.g. where health facilities are sparsely located or have not been established. The schools will also be used for the purposes of sensitising and educating parents, care-givers and communities on nutrition and health. The relationship between education and health services will be strengthened

further through teacher training. Pre-school and primary school teachers will be equipped with knowledge that enables them to nurture healthy development of their pupils, including detection of children who need medical attention.

3.6.2 Coordination at MoE Headquarters

Within MoE the following measures will be taken to improve efficiency and effectiveness of the provision of pre-school education:

- (a) ***Streamlining Management at Headquarters.*** Considering need for closer coordination of central functions in a system where detailed management is decentralised, the current three units at MoE headquarters - Early Childhood Education Section, NACECE, and Inspectorate - will be merged into one department. In recruiting and developing staff for the department, preference will be given to women.
- (b) ***Guiding the Decentralised System.*** To facilitate effective detailed management and financing at the local level, MoE's ECCDE department will:
 - (i) develop and distribute guidelines on professional and management standards expected of pre-schools;
 - (ii) develop guidelines on terms and conditions of service for pre-primary teachers and non-teaching staff (see 3.6.3 below);
 - (iii) organise for the printing and publication of instructional materials (see 3.6.4 below);
 - (iv) organise and carry out the training of trainers to undertake the training of pre-school teachers and detailed curriculum at the local level (see 3.6.4 and 3.6.5 below);
 - (v) design and organise training for pre-school managers;
 - (vi) develop a system for monitoring and assuring quality in ECCDE;
 - (vii) establish and maintain a computer-based MIS, networked with locally-based systems, to facilitate the management of the sub-sector.
 - (viii) carry out research on ECCDE, and in particular continuously evaluate the outcomes of the programme.

3.6.3 Management of Pre-schools at the Local Level

The following measures will be taken to improve management at the local level:

- (a) *Provision of Essential Requirements.* Facilities, equipment, instructional materials, and staff remuneration will continue to be provided at the local level by LGAs, communities, and sponsors. Under the new Education and Training Act, committees in which stakeholders are represented will be set up to manage community pre-schools. Taking into account the guidelines developed by MoE [see 3.6.2 (a) and (b) above], LGAs will ensure that committees undertake detailed financial planning so that essential needs of pre-schools - including adequate remuneration of staff - are met.
- (b) *Improving Transition to Primary School.* Current approaches to the location and management status of pre-schools will be studied so as to improve the sub-sector's role as a transitory stage between home and primary school. Currently, many pre-schools are attached to and, in varying degrees, come under the management of the headteachers of primary schools. While this arrangement has some advantages, it has at least three untoward outcomes. First, in some cases, the pre-school section of the combined school tends to be neglected in terms of provision of essential resources. Second, the emphasis on narrowly-based cognitive preparation for the KCPE which characterises most primary schools readily permeates into the pre-school section of the combined school. The headteacher and staff conceptualise and manage the pre-school curriculum as inculcation of the 3Rs in preparation for standard 1. Although systematic evidence is not available, cases of 6-year olds being forced to repeat pre-school because they are not deemed ready for entry into standard 1 are said to be common in both urban and rural areas. Third and closely related, primary schools with pre-schools have increasingly made the latter the major catchment area for their standard 1 intakes. This leads to the exclusion of neighbourhood 6-year olds who should enrol in primary school in spite of failure to enrol in pre-school, largely a reflection of the relatively high household costs in pre-school education. This is most likely one of the causes of declining enrolment rates in primary education.

During the plan period:

- (i) clear policy will be promulgated with regard to pre-school experience as part of the criteria for standard 1 enrolment; and
- (ii) while bearing in mind special circumstances, LGAs and communities will be encouraged to establish and manage pre-schools as discrete institutions.

3.6.4 Curriculum

- (a) **Balanced Curriculum.** The MoE ECCDE department will continue to be responsible for the preparation of general guidelines which form the basis of detailed curriculum development at the local level. At all levels, the development and implementation of the pre-school curriculum will endeavour to provide opportunities for the balanced development of the child as opposed to the current emphasis on a narrow part of the cognitive spectrum.
- (b) **Curriculum Materials.** The supply of essential materials will be improved as follows:
 - (i) In order to maximise the utilisation of resources, the development of instructional and play materials using local raw materials will be intensified. This aspect will be further developed as an important part of the training of pre-school teachers, parents and care givers.
 - (ii) Appropriate arrangements will be made between the MoE ECCDE department and LGAs for the production and supply of printed instructional materials and equipment that is more cheaply purchased in bulk at the national level.

3.6.5 Development of Pre-school Human Resource

- (a) **Teacher Development.** The on-going effort, under the World Bank supported project, to give professional training to all pre-school teachers will be continued beyond 2001. Through collaboration between GoK and LGAs, the staff needs of the sub-sector (including training of trainers and the number of teachers to be trained every year) will be systematically projected and adequate funding made available.
- (b) **Gender.** Special attention will be given to ensuring that the teaching force consists of predominantly qualified female teachers.
- (c) **Enhancing Linkages Between Pre- and Primary school Learning.** In order to ease children's transition from pre-school to primary school, the lower primary teaching methods component in pre- and in-service training of primary school will be given added emphasis.
- (d) **To enrich the human resource base for the development of children,** the training given to parents and care givers (including house maids, and child minders in centres for orphans and children in especially difficult circumstances), initiated under the

World Bank supported project, will be continued beyond 2001. In addition to inculcating knowledge on health, nutrition, child care and protection, attention will be given to equipping parents and care givers with skills which enable them to stimulate the cognitive growth of 0-6 year olds. Such stimulation is regarded as being particularly important for children who miss out on pre-school.

CHAPTER 4

PRIMARY EDUCATION

4.1 INTRODUCTION

There is overwhelming research evidence that a minimum of educational attainment among the majority (if not all) of a country's population is a prerequisite for modern development. In many developing countries, this minimum attainment often referred to as the first or *open cycle* (i.e. access is not constrained by examination-based selection), is confined to the primary school course. Kenya has an eight-year primary school course. With regard to return on investment, findings from many studies show that, as compared to the post-primary sub-sectors, investment in primary education yields higher returns for individuals, households and society. Primary schooling (i) improves economic productivity in the formal and informal sector both in rural and urban areas; and (ii) has many salutary social outcomes including reduction in fertility and infant mortality, improvements to family health and nutrition, and increased awareness of and participation in civic affairs. Further, primary education - through nurture of literacy, numeracy, scientific skills including reasoning and problem-solving, social skills, values and appropriate attitudes - is the basis of further formal education and life-long learning.

The crucial role played by primary education has led to its being declared a human right to which every child is entitled, and whose provision should therefore be the responsibility of the state. In Kenya the state does not require payment of formal fees at this level, but due to constraints in fiscal resources, households have to meet some of the costs. During the Plan period, measures based on increased public financing will be taken to accelerate the attainment of EFA at the primary level.

4.2 OBJECTIVES

The objectives of primary education are:

- 4.2.1 To promote growth of the whole person through integrated development of mental, physical and emotive (moral, spiritual and aesthetic) attributes and abilities;
- 4.2.2 To impart literacy and numeracy, and to nurture scientific skills - such as reasoning and problem-solving - and social skills including service to others and to society;
- 4.2.3 To develop an understanding of economic production factors and their relationship with social context and the natural environment;

4.2.4 To promote social equity through provision of basic education to all, including females, disadvantaged communities and households, and the disabled;

4.2.5 To lay a firm foundation for further formal education and training, the world of work and life-long learning.

4.3 POLICIES

The principal thrust in GoK policy on primary education will be to accelerate the attainment of EFA. This will entail increasing efficiency and effectiveness through development of a legal and management infrastructure that institutionalises decentralisation of power and authority through devolution of professional management and financing to LGAs and school committees which, as compared to MoE, are better placed to be accountable for the quality of outputs and outcomes. Policy will take into account the need for (i) prioritising allocation of resources to the sub-sector vis-avis other sub-sectors; and (ii) realistic pacing and sequencing of interventions so as to attain gradual but sustainable change. The development of primary education will be guided by the following specific policies:

4.3.1 The planning, financing and management of primary education will be decentralised to LGAs and school committees.

4.3.2 Primary education will be made accessible to all children in the age group 6-14 years, with the aim of achieving a net enrollment ratio of 100 per cent.

4.3.3 The quality and relevance of education will be continuously improved. Within each LGA a unit with responsibility for quality development will be created. A quality assurance unit, with branches in the provinces, will be developed at the central government level.

4.3.4 Efficiency and effectiveness of resource mobilisation, allocation and utilisation will be continuously improved and accountability strengthened and ensured.

4.4 OVERVIEW OF CURRENT STATUS OF PRIMARY EDUCATION

4.4.1 Access and Participation

Participation in primary education is characterised by three untoward features. First, with regard to initial access: (i) inherited geographical and gender disparities persist; (ii) a rising number of urban slum children is not attending formal school; and (iii) the enrolment rate is not keeping pace with the increase of the relevant age group. Second, a high dropout rate is leading to unacceptably low proportion

of pupils who complete the primary course. Third, a high rate of grade repetition leads to inefficient utilisation of resources.

4.4.2 Relevance and Quality

There is evidence that the relevance and quality of education needs to be raised. First, the 13 subjects in the curriculum are far too many and, compounded by the lengthy and often duplicated content of syllabuses, do not permit concentration on and sufficient acquisition of the skills that should constitute the essence of learning at this level. Second, curriculum processes are overly centralised with the result that there is little room for teachers to develop curriculum that takes into account different environments. Third, the learning process is unduly influenced by the KCPE exam whose main aim is perceived as allocation of limited openings at the secondary school level. There is absence of a national approach aimed at providing formative feedback to all stakeholders in the formal learning system. Fourth, the provision of resources for learning - physical facilities and instructional materials - is inadequate. Fifth, there are shortcomings in the human resource base necessary for quality learning: (i) many institutional leaders - heads and members of school committees and parents - either lack expertise in professional management or do not feel fully accountable for the success of the school; and (ii) the intrinsic and extrinsic motivation of the teaching force is low.

4.4.3 Cost, Financing and Management

Although a number of factors outside the school system (such as low demand for education associated with certain cultural values and practices among some communities) contribute to shortcomings, the situation in 4.4.1 and 4.4.2 above is to a large extent explained by the current approaches in determining costs, financing, and management of school resources. First, no attempt has been made to estimate an optimal unit cost - an amount that should cover the cost of essential learning needs. Mobilisation of resources for schools - including teacher deployment, parental and household contributions, and assistance from NGOs - is haphazard and open to abuse and inequitable distribution practices. Second, since the late 1980s a rising proportion of households has been unable to meet higher costs for the education of their children. Particularly worrisome are findings that many households are unable to provide learning materials demanded by the extensive curriculum. Third, school planning matching identified needs with available or projected resources has not emerged as common practice. Fourth, the management of resources, including financial accounting and audit of school funds, is unsatisfactory.

4.5 STRATEGIES

The following three complementary sets of strategies will be adopted in order to improve on the current status of primary education.

4.5.1 Increasing Access and Participation. To ensure that the country is moving towards providing education to all children in the 6-14 year age group the following strategies will be adopted:

- (a) raise the rate of enrolment in standard one, increase the primary school completion rate, and reduce grade repetition;
- (b) give support to institutions offering education outside the formal system;
- (c) improve the nutrition and health status of pupils.

4.5.2 To raise relevance and quality:

- (a) improve the management infrastructure and climate in schools;
- (b) provide the physical facilities and instructional materials necessary for quality learning;
- (c) review the curriculum to give emphasis to acquisition of essential skills and abilities;
- (d) devolve the development and implementation of the curriculum to teachers at the local and school level;
- (e) improve the quality of the KCPE exam and develop a separate national formative monitoring system;
- (f) develop and implement criteria for effective teacher professional progression;
- (g) raise teacher morale and motivation;
- (h) improve the health and nutrition status of pupils.

4.5.3 Improving Resource Mobilisation, Allocation and Accountability. To ensure that resource mobilisation and allocation are enhanced and that accountability is ensured, the following strategies will be adopted:

- (a) base financing on rationalised totality of essential learning requirements, including a unit cost appropriately balancing salary and non-salary recurrent costs;
- (b) make the curriculum manageable in terms of time and cost;
- (c) with a view to eventually making the state responsible for financing primary education, reduce household contributions to the sub-sector;

- (d) base expansion of primary education on carefully planned norms, including school mapping;
- (e) empower stakeholders at the local level through decentralisation of management and financing to LGAs, school committees and PTAs;
- (f) define the location of accountability for various educational functions through delineation of the roles of MoE, LGAs, school committees and PTAs.

4.6 PROGRAMMES AND ACTIVITIES

In pursuit of the foregoing sets of strategies, activities - the combined effect of which is expected to be improved efficiency and effectiveness in the delivery of primary education - will be carried out under the following interrelated programmes on (i) legal and management infrastructure, (ii) physical facilities, (iii) instructional materials, (iv) alleviating inequity, (v) curriculum and assessment, (vi) teaching force, and (vii) health and nutrition.

4.6.1 Legal and Management Infrastructure

- (a) **Education and Training Act.** The management of education and training will be streamlined under one Act of Parliament which will cover all aspects of the sector including those currently placed under the Education Act. Detailed recommendations are in Chapter 10 on sector management).
- (b) **Decentralisation to Local Government Authorities.** The professional and financial management of primary education will be devolved to LGAs through appropriate amendment to the Local Government Act. Under each LGA (county council or municipality) a District Education and Training Board (DETB), with an appropriate secretariat, will be established to, *inter alia* take over responsibilities currently carried out by district education boards. The proposed membership and functions of the DETB are stated in Chapter 10 on sector management.
- (c) **School Management.** Each primary school will be managed by the headteacher with the participation and guidance of a school committee (SC). The membership and functions of the SC are stated in Appendix II. To improve the management of schools, headteachers and members of the SC will be systematically trained. The experience gained through the SPRED II and PRISM projects which aim at imparting management expertise and community involvement will be built upon. In carrying out training particular attention will be given to (i) planning (including budgeting) on the basis of stated objectives, and management of resources; and (ii) professional leadership based on collegiality among staff, student participation, and active involvement of parents and communities.

- (d) *Audit of School Accounts.* Under the guidance of the DETB, the SC will develop an efficient audit system for school funds.
- (e) *Cost and financing will be streamlined.* The first step will be to establish a reasonable cost. School demands on households costs have continued to escalate with pupils whose families are unable to meet the demands being forced to dropout. A number of studies (for example CBSA, 1994) have established that to an extent the escalation of school demands is attributable to items not directly contributing to teaching-learning. Such items include expensive uniforms, sporting equipment, activity fees and building levies. A major opportunity cost of meeting these peripherals is less money spent on instructional materials and essential facilities. To correct the situation, a study, whose objective will be to arrive at a viable unit cost, will be carried out to establish norms for essential learning requirements.

Second, within schools, budgeting will be streamlined. The proposed unit cost, which will reflect a sensible balance between salary and non-salary recurrent expenditure, will be the basis of a consolidated school budget in which all revenue (from both public and non-public sources) is reflected. Each school will be encouraged to perceive its budget as a key tool in working for its professional success. To augment revenues, schools will be encouraged to develop income-generating activities and to make arrangements for sharing facilities and materials among neighbouring institutions.

- (f) *Quality Assurance, Monitoring and Formative Guidance.* School inspection will be improved so as to enhance its formative role in curriculum implementation. To improve the quality of advisory and monitoring services, two measures will be taken. First, under the DETB the position and duties of teacher advisory centre tutors, zonal inspectors, and divisional education officers will be streamlined and harmonised to establish one unit for quality development at the TAC. The TACs will be staffed with high quality personnel. The key role of these field officers will be the development of quality education, with their responsibilities including in-service teacher development based on curriculum development that takes into account the local environment. Second, a quality assurance and monitoring unit based at the provincial level and reporting to the National Education and Training Commission will be established (for details see Chapter 10 on sector management). A selection criteria, clearly detailing the career progression and prospects will be developed for officers in the two units.

4.6.2 Physical Facilities

Physical facilities have a bearing on quantitative growth and quality of education. For instance, more space and furniture are necessary if enrolments are to be

raised; moreover, a certain minimum of classroom space per pupil and requirements (such as furniture, toilet facilities and recreation grounds) are prerequisites of quality education. During the plan period, the provision of physical facilities will be improved as follows:

- (a) ***Establish Essential Requirements.*** In conjunction with the ministries of health and public works, MoE will develop and, through DETBs, publish benchmarks on basic physical facilities for primary schools. Existing and new schools will be required to comply with these benchmarks.
- (b) ***Building Code.*** Emphasis will be placed on putting up affordable but functional school buildings. The assistance of the ministry of works will be sought in developing building codes which maximise the use of cheap local materials and labour.
- (c) ***Mode of Expanding Schools.*** In order to accommodate growth in enrolments while conserving on development resources, DETBs will be encouraged to expand existing schools to *full capacity multistream institutions* before contemplating establishment of new ones. In this regard, the possibilities of developing *double-shift schools* in high population density areas will be explored. With regard to the establishment of new schools, MoE will develop the *school mapping* approach and take steps to ensure that DETBs adhere to it. For instance, central government grants (e.g. for teachers' salaries) will only be given to new schools for which there is evidence that school mapping has been taken into account.
- (d) ***Facilities for the Disabled.*** The policy of integrating, as far as possible, disabled children into normal school will be continued. The special needs of disabled children will be taken into account in putting up school facilities. The process of identifying disabled children and encouraging families to enrol them in school will be strengthened. DETBs will be encouraged to establish special schools where need is rationally established.
- (e) ***Financing Physical Facilities.*** Currently, except in a few municipalities, the financing of physical facilities in public primary schools is undertaken by parents and communities. In line with the thinking that the basic open cycle of education should be paid for through public funds, during the plan period GoK will endeavour - either through boosting LGA revenues or increased central government grants - to create a viable partnership in the development of physical facilities. For instance, communities could be required to provide labour and local materials (such as locally-made bricks and furniture) while public funds are used to purchase the rest of the materials (such as timber, roofing materials, and fittings). *Inter alia*, the development of such a partnership

should eliminate the practice whereby demands for heavy development fees prevent poor households from enrolling their children in school.

4.6.3 Instructional Materials

Inadequacies in instructional materials constitute one of the most important factors adversely affecting the quality of primary education. The current cost-sharing policy places the onus of providing instructional materials on households and communities. Households who either cannot afford the expenses involved or do not fully appreciate the crucial importance of instructional materials for the quality of their children's fail to underwrite the supply. As a consequence, the achievement of many learners is greatly weakened. During the plan period, the following measures will be developed to improve the supply of instructional materials.

- (a) **Responsibility for Supply of Instructional Materials.** DETBs will be charged with the responsibility of providing all essential instructional materials.
- (b) **Taking into Account Fiscal Constraints and Exploiting Economies of Scale.** Ideally, as in the case of physical facilities, Kenya should move towards the provision of instructional materials through public funds. However, given constraints in public revenues in the foreseeable future, and as a way of proactively involving pupils and their families in taking care of materials, households will be required to make a financial contribution towards pupils' learning materials. Mechanisms will be put in place so that all instructional materials and equipment are produced and/or procured in bulk. The following specific measures will be developed:
 - (i) a school-centred *revolving textbook scheme* into which pupils pay a user fee (as opposed to outright purchase);
 - (ii) an *LGA-based purchase and distribution of other instructional materials* (e.g. pupils' stationery, teacher guides and reference material, teaching aids, chalk, and other classroom equipment; and
 - (iii) provision of a *science teaching-learning kit* produced through a special arrangement with a private sector firm(s) and purchased and distributed through LGAs.
 - (iv) allocation of matching grants from public funds to encourage school committees to develop *school/class libraries*.

In developing these approaches, the experience gained from on-going projects (such as the GoK textbook provision scheme to ASAL and other

poor areas, and the textbook pilot project in Laikipia and Machakos districts) will be taken into account.

- (c) ***Instructional Materials and Equipment for Disabled Pupils.*** Working through the Kenya Institute of Special Education, and in collaboration with interested donors and NGOs, GoK will set aside grants for the development of learning materials and special equipment for disabled learners.
- (d) ***Liberalising the Market for Instructional Materials.*** In line with macro-economic policy, the market for developing and supplying instructional materials will be liberalised such that purchases for school needs will be on open tender. However, public institutions - such as technical training institutions, universities, and the School Equipment Production Unit - will be encouraged to seek for competitive contracts in the market. Producers of learning materials will be required to give special attention to durability, particularly with regard to book binding.

4.6.4 Alleviating Inequity

Even though measures aimed at increasing the share of public funds in the provision of primary education should lead to increased equity, households will still be required to make a contribution, a requirement which the poorest households may not be able to meet. The following measures will be taken to encourage participation from the poorest households:

- (a) ***Develop a Levies Remission System.*** A system of remitting household financial dues will be developed. The first step will be to establish a community-based method of identifying deserving cases eligible for enrolment in each community school. The scheme will operate as follows: (i) the DETB will establish a remission fund to which school committees whose communities wish to benefit from the fund should make contributions; (ii) contributions will be solicited from individuals, businesses, NGOs, donors and other well-wishers; (iii) central government grants, currently planned for utilisation as primary school bursaries, will be used as matching funds to encourage the effort at the LGA level; and (iv) disbursement to schools will take the form of supply of essential materials whose cost is equal to the amount remitted. Further, the possibilities of poor families making their contributions in terms of costed labour will be explored, with controls to guard against abuse being given careful thought.
- (b) ***Alternative Education Programmes.*** Currently, a number of alternative community-NGO-donor programmes (e.g. informal schools for slum children) offer basic education to school age children whose families cannot afford the costs of formal school. These programmes will be streamlined and strengthened. With matching grants from the central

government, LGAs will be required to include these programmes in their planning. Channels for re-entry into the formal system will be developed. However, the ultimate policy objective will be the development of a school system which offers opportunity for all children of school-going age. (For a more detailed discussion and recommendations on education programmes for out-of-school youth, see Chapter 8).

4.6.5 Curriculum and Assessment

Since the mid-1980s the primary school curriculum has been the subject of criticism by the community and educationists. Among common criticisms are complaints that the curriculum (i) is too broad and hinders learning as a natural process; (ii) does not allow teaching-learning to concentrate on the abilities and skills which constitute the essence of basic education; (iii) is beyond the professional capability of most serving teachers; and (iv) is unnecessarily expensive in terms of the financial outlay required for physical facilities and instructional materials. It is also often pointed out that the assessment of curriculum implementation is too dominated by the KCPE selection exam and does not give sufficient attention to formative monitoring. The following improvements will be made:

- (a) ***Make the Curriculum Relevant, Manageable and Less Expensive.*** The curriculum will be streamlined to give emphasis to the acquisition of essential learning skills - literacy, numeracy, scientific skills, an appreciation of the social context and its relationship with the factors of economic production and the natural environment, and aesthetic values. Learning will be organised around four examinable disciplines - *languages (English and Kiswahili), math, science, and general studies.* The nurture of social and aesthetic values, and creative abilities (including practical skills) will be integrated in the teaching-learning of the foregoing core disciplines, and will be enhanced through co-curricular activities, pastoral programmes and formative guidance and counselling. Curriculum development will be geared to (i) relating selected syllabus content to development of skills and abilities among learners; (ii) eliminating unnecessarily lengthy content and duplication between syllabuses; and (iii) guiding teachers towards adapting the curriculum to the local environment so as to make learning pupil-centred.
- (b) ***Revision of Curriculum Materials.*** Pupils' textbooks and teachers guides will be revised in line with the revised curriculum. Particular attention will be given to eliminating gender stereotypes in curriculum materials.
- (c) ***Flexibility in Curriculum Time Element.*** In order to reduce the opportunity costs of attending school, flexibility will be introduced into

the time element of the curriculum. Bearing in mind (i) the mandatory number of hours of attendance in a year; (ii) timing of the KCPE exam; and (iii) extra-school activities involving teachers and pupils, schools - preferably on a regional basis - will be permitted to introduce timetables which allow pupils to assist in their households' production activities and chores. Such flexibility will be discussed, introduced, and reviewed with the agreement of parents, school committees, teachers' union and DETBs.

- (d) *Improving the KCPE Exam.* Because of the importance attached to the selection function of the KCPE exam, regardless of what is stipulated in the curriculum, schools concentrate on the examination and ignore anything that they think will not be examined. This undermines learning as a natural process by hindering the internalisation of essential abilities and skills. Taking advantage of previous experience in research and development (R&D) in examinations, the research unit of KNEC will be strengthened so as to enhance the development of examinations which support desirable aspects of the teaching-learning transaction. In particular, R&D will aim at developing (i) test papers which predominantly measure, as opposed to mastery of content, the abilities and skills specified in the revised curriculum, and (ii) more decentralised testing approaches (including continuous assessment).
- (e) *Development of Formative Assessment at the National Level.* A formative monitoring system, based on national samples of non-KCPE classes, will be developed. The aim will be to analyse the samples' performance in criterion-referenced tests (e.g. in math, science and language) in relation to factors (e.g. inputs into the school system and learner characteristics) that influence learning. A major objective will be to systematically identify where and how improvements to learning could be made. Again, a strengthened KNEC R&D unit will be a prerequisite.

4.6.6 The Teaching Force

The teaching force constitutes an important factor in the primary education system. First, teacher remuneration accounts for over 90 per cent of the public allocation to primary education, a factor that limits the GoK's ability to contribute to non-salary requirements such as instructional materials. Second and on a different plane, teachers constitute a crucial tool in the learning process. A relevantly qualified and highly motivated teaching force is a prerequisite for the promotion of high achievement among pupils. The following measures will be taken to address the foregoing issues on the teaching force:

- (a) *Raising Efficiency in Staffing.* Research evidence suggests that the pupils per teacher ratio (PTR), currently 31:1 in the Kenya primary education system, could be raised without adversely affecting the quality of education. Raising the PTR should result in savings which could be re-invested into (i) improved remuneration of a teaching force growing

at a more gradual rate; and (ii) improving the non-salary aspects of the system, thereby making reduction of costs to households possible. Sooner than later in the plan period, measures will be taken to *raise the national average PTR to 40:1*. Such measures will include:

- (i) introduction of *multi-grade teaching* where small schools are the only means of providing education to scattered populations;
 - (ii) *streamlining the deployment of teachers* such that overstaffing, currently a major issue in urban and high-potential areas, is eliminated;
 - (iii) *relating admission to teacher training to projected needs* in schools;
 - (iv) introducing an element of *peer teaching* by the more senior pupils; and
 - (v) *cultivating the active participation of affected stakeholders*, particularly parents and the teachers' union and associations, in the exercise.
- (b) ***Develop and Implement Clear Criteria for Selection into Teachers' College.*** To take advantage of the rising number of academically well-qualified secondary school leavers, qualifications for entry into teachers college will be raised and strictly adhered to. Selected trainees will be limited to applicants who are qualified to handle the curriculum proposed above. Accountability for selecting the most qualified trainees will be vested in DETBs and will be subject to monitoring by the quality assurance unit at the provincial level. As further checks on the system (i) each principal of a teachers college will be required to certify in writing that all trainees admitted to the institution are qualified according to clearly stated criteria; and (ii) in conducting the final certification exam, KNEC will ensure that the results of candidates who may have slipped through the net are cancelled.
- (c) ***Improving the Pre-service Training Course.*** Since trainees will be recruited at a higher academic level, more emphasis will be laid on the acquisition of pedagogical skills. The two-year pre-service course will be reviewed such that trainees spend the first year in college while the second year is spent in teaching under the guidance and supervision of headteachers, peers, field officers and college lecturers. Transparent criteria for assessing this practical aspect will be developed, with the grades being incorporated into the final award.

- (d) ***Instituting Regular Teacher In-servicing.*** To ensure continuous professional development of teachers, regular in-servicing of all teachers will be developed. This will entail developing (i) regular *appraisal of teachers' performance* geared to identifying their training needs; (ii) *local in-servicing* in which field officers, headteachers, and experienced teachers take the lead on peer basis. The KIE will play the role of developing appropriate in-servicing guidelines, and teachers colleges will be involved in injecting new ideas and approaches into the system.
- (e) ***The Essence of Teacher Professional Development.*** In both pre-service and on-the-job training, emphasis will be placed on inculcating practical pedagogical skills and approaches which prepare the teacher as a medium for translating teaching-learning into a learner-centred process. *Inter alia*, training will give emphasis to two aspects. First, teachers will be trained to appreciate and practise the translation of centrally-developed curriculum guidelines into interesting classroom activities which nurture the initiative and creativity of learners. In this regard, teachers will be trained (i) in the art of continuously evaluating and shaping pupils' learning; and (ii) using the local environment as a learning resource. Second, all teachers will be trained to appreciate that the success of teaching-learning is positively related to communication approaches which take account of the learner's cognitive and emotive needs. In this regard, teachers will be trained in (i) formative guidance and counselling; (ii) gender dimensions in teaching-learning; (iii) special skills in guiding the learning of the handicapped; (d) the role of pupil-to-pupil interaction; and (v) the influence of pupils' socio-economic status on learning.
- (f) ***Encouraging Teachers to Increase their Academic Knowledge.*** Teachers will be encouraged to study for higher academic qualifications, provided that such study does not adversely affect performance of their official duties. Teachers who acquire higher relevant qualifications will be given commensurate promotion or salary increase.
- (g) ***Raising Teacher Morale and Motivation.*** It is expected that teacher job-satisfaction will be raised through implementation of this MPET's recommendations on improvements to the school system (e.g. with regard to physical facilities, instructional materials, professional development, proactive involvement of the teachers' union and associations). To raise the extrinsic motivation of teachers, (i) as the economy improves teacher remuneration will be favourably reviewed; (ii) DETBs and school committees will include provision of teacher residential housing in their planning; and (iii) special allowances for teachers (e.g. those serving in special schools for the disabled or in hardship areas) will be favourably reviewed.

4.6.7 Health and Nutrition

Good health and adequate nutrition are positively related to pupils' success in learning. A well-nourished and healthy child has a higher learning capacity than one who is malnourished or unhealthy. Although the nutrition and health status of children and the population is a factor of the macro-economy, it is possible for salutary measures to be taken within the school system. During the plan period the following measures will be taken to enhance the nutrition and health status of children and, to an extent, the society:

- (a) ***Integrating Nutrition and Health into the Curriculum.*** As is currently the case, health, nutrition and the related discipline of agriculture will continue to be part of the curriculum. However, in departure from predominantly theoretical approaches in the classroom and in an attempt to adapt the curriculum to local environments, in collaboration with the ministries of health and agriculture, livestock development and marketing, practical functional activities will be developed as part of curriculum implementation. The experience of agriculture-based income-generating activities in some schools, 4-K clubs, and donor-NGO projects aimed at integrating promotion of health into school activities will be built upon.
- (b) ***Use of Schools as Centres for Community Health.*** In collaboration with health authorities, DETBs and school communities will be encouraged to develop the use of schools as centres for immunisation against preventable diseases, deworming, growth monitoring, and prevention of water-, air- and insect-borne diseases. Parents and communities around the school will be involved in the endeavour.
- (c) ***School Feeding Programmes.*** It is recognised that in many areas, especially in ASAL, school feeding programmes play an important role in ensuring a high level of participation in formal education. NGOs, donors - especially the UN's World Food Programme (WFP) - and GoK play important roles in school feeding programmes. Prior to the expiry of on-going WFP project in 2001, collaborative planning involving central government, LGAs, interested donors and NGOs, and communities will be mounted to work out ways in which these programmes could be made sustainable until the development of national food security obviates their continued existence.

CHAPTER 5

SECONDARY EDUCATION

5.1 INTRODUCTION

Secondary education caters for primary school leavers in the 15-18 year age group. Performance in the KCSE examination, which marks the termination of the 4-year secondary course, is used for selection into university and training in middle-level trades and professions such as primary teaching and vocational and technical jobs. Equally important, secondary education plays an important role in creating the country's human resource base at a level higher than primary education.

Although since independence secondary education has expanded considerably, access remains restricted. Only 47 per cent of pupils who completed primary school in 1996 were selected for entry into secondary school. The number so selected represented 27 per cent of the relevant age group, a proportion that had declined from 31 per cent in 1989. This restricted access raises a number of interrelated issues. First, as education is regarded as the gateway to high status and well-paid jobs, Kenya communities are characterised by social demand for more openings in secondary schools. Second, at 14, the primary school leaving age may be regarded as too low for entry into jobs which require full maturity. It is instructive to note that Kenya law classifies adolescents under the age of 16 years as minors. In advocating for at least 15 years as the age of entry into the labour force, a recent international report argues that *the single most effective way to protect children from hazardous and exploitive labour is to extend and improve education* (UNICEF, 1997:4). Many developed countries have made school attendance compulsory for all children until at least the age of 16, an objective increasingly adopted by the more prosperous developing countries.

Third, perceptions of adequacy of the minimum education level for the human resource base and labour force suggest need to expand secondary education if Kenya is to attain a NIC status by 2020. For instance, the National Development Plan 1997-2001 observes that by the take off point into industrialisation the newly industrialised countries of Korea, Malaysia and Mauritius had achieved secondary school GERs of 42%, 34% and 30% respectively, and that by 1991 these ratios had risen to 88%, 58% and 54% as compared to Kenya's 29%.

The MPET recognises the need and proposes that education be expanded at the second level. However, it is intended that the expansion takes into account the circumstances in which provision in the whole E&T sector is made. Particularly important are considerations of resource ramifications on quantitative growth and quality improvements especially in both the primary and secondary sub-sectors. The MPET proposes the adoption of the following order of priorities:

- (a) reverse decline in the rate of primary school enrolment and raise quality at that level (see Chapter 4);
- (b) raise the proportion of primary school leavers selected for secondary school and raise quality in the sub-sector;
- (c) increase opportunities at the second level by streamlining and expanding the youth polytechnic system (see Chapter 7); and
- (d) develop provision at the secondary level as part of basic education, a prerequisite of which is increased public funding.

5.2 OBJECTIVES

As both primary and secondary education are in the realm of general education, there is a large measure of commonality between the objectives of the two sub-sectors. Secondary education will be guided by the following objectives:

- 5.2.1 To promote beyond the primary school experience, growth of the whole person through integrated development of mental, physical and emotive (moral, spiritual and aesthetic) attributes and abilities;
- 5.2.2 To further promote linguistic skills, facility in number, scientific concepts and skills (reasoning, problem-solving, creativity, technological applications of science, etc.), and social skills including service to others and to society;
- 5.2.3 To increase knowledge on economic production factors and their relationship with the social context and the natural environment;
- 5.2.4 To promote social equity through provision of education to an increasing number of adolescents, including those from disadvantaged communities and households, girls, and the handicapped;
- 5.2.5 To strengthen the foundation, laid down in primary school, for further formal education and training, the world of work in and outside the country, and life-long learning.

5.3 POLICIES

The principal thrust in GoK policy on secondary education will be to raise participation with a view to making the sub-sector part of basic education provided to all children in the eligible age group. This will entail increasing efficiency and effectiveness through development of a legal and management infrastructure that institutionalises decentralisation of power and authority through devolution of professional management and financing to LGAs and

boards of governors which, as compared to MoE, are better placed to be accountable for the quality of outputs and outcomes. Policy will place emphasis on easing the transition from primary to secondary school, with selection for Form I being devolved to LGAs and individual secondary schools. A prerequisite for such devolution will be the improvement of the quality of education in most secondary schools so that the need for central rationing a few quality places, such as in the current national and provincial schools, is obviated. The development of secondary education will be guided by the following specific policies:

- 5.3.1 The planning, financing and management of secondary education will be decentralised to LGAs and boards of governors.
- 5.3.2 Education and training opportunities for adolescents in the 15-18 year age group will be increased.
- 5.3.3 The proportion of primary school leavers selected for secondary education will be raised to 70 per cent by the year 2010, with the aim of achieving a transition rate of 100% by 2020.
- 5.3.4 The relevance and quality of education in all secondary schools will be raised so as to increase equity with regard to achievement and thus, pave the way to decentralised selection.
- 5.3.5 Efficiency and effectiveness in resource mobilization, allocation and utilisation will be increased, and the location of accountability for outputs and outcomes will be clearly defined.

5.4 OVERVIEW OF CURRENT STATUS OF SECONDARY EDUCATION

5.4.1 Access and Participation

As stated in Chapter 1 and the introduction to this chapter, limited access to education at the second level is a major challenge which will need to be tackled during the plan period. First, the enrolment trend at the national level is unsatisfactory. To the non-planner there may appear to be no problem because, according to MoE statistics, the total enrolment in secondary schools actually rose from 609,200 in 1989 to 658,253 in 1996. The problem is that during this seven-year period the gross enrolment ratio (i.e. the number enrolled expressed as a percentage of the total population of the 15-18 year age group) declined from about 31% to about 27%. This means that the rate of enrolment is not keeping pace with the growth of the population of the eligible age group. Continued decline of the GER would mean a rising number of adolescents who miss out on secondary school education.

Second, gender and regional disparities in enrolment persist. Although between 1989 and 1996 the female GER only dropped from 24.8% to 24.3, i.e. by only

0.3 percentage points, as compared to a male drop of 8.3 percentage points (36.7% - 28.4%), the female proportion (46%) of the total enrolment remained lower than the near parity (49:51) achieved in the primary school sub-sector. Regarding disparities between districts, MoE statistics show that in 1993 GERs in rural districts ranged from 34.2% in Nyeri District (in Central Province) to 9.7%, 6.8%, and 5.9% in Garissa, Wajir, and Mandera (all in NE Province) respectively. Female GERs in NE Province were as low as 2.1% in Mandera, 2.2% in Wajir, and 3.8% in Garissa. Other districts with low female GERs included Kilifi (11.5%), Kwale (11.1%), West Pokot (10.7%), Narok (7.6%), Samburu (7.5%), Turkana (6.4%), and Marsabit (5.0%). Nairobi had a male GER of 35% as compared to 18.4% for females.

Third, high dropout rates keep enrolments low. Assuming that grade repetition was negligible, in Table 5a the retention rates of the cohort enrolled in Form 1 in 1993 is analysed. Between Forms 2 and 4 11% of males dropped out as compared to 14% of females². The higher rate of dropout among females would seem to lend support to the view that there are special factors (such as teenage pregnancy, early marriage, household preference for males in allocating resources to education, imbalance in the allocation of household chores, and other gender stereotypes unfavourable to females) which adversely affect female persistence.

Table 5a. Gross Retention Rates in Secondary Schools, 1993-96 (enrolment in '000s)

MALE				
FORM	1	2	3	4
1990	82			
1991		88 (107%)		
1992			84 (95%)	
1993				78 (93%)

FEMALE				
FORM	1	2	3	4
1990	70			
1991		77 (110%)		
1992			70 (91%)	
1993				66 (94%)

² The 1993 Form 1 enrolment figure, lower by 16% and 12% from the 1992 and 1994 figures respectively, was most likely an underestimate. Consequently, 1993 is not an accurate base year.

MALE & FEMALE

FORM	1	2	3	4
1990	151			
1991		165 (109%)		
1992			153 (93%)	
1993				144 (94%)

Source: Economic Survey 1997.

Fourth, the progression of the disabled to secondary school is unsatisfactory, particularly when cognisance is made of the often used estimate that 5 to 7 percent of the population is disabled. The number of special secondary schools remains small, with only 7 public secondary schools (with a total enrolment of 845) - one for the blind, three for the physically handicapped, and three for the hearing impaired. Equally important, the procedures for integrating disabled children in regular schools are haphazard. For instance, the establishment of special education units in regular schools is left almost entirely to the initiative of individual schools.

5.4.2 Relevance and Quality

While a small proportion of secondary schools continue to offer satisfying well-rounded education programmes, the great majority of schools fall short of providing for the learning needs of their students. Poor academic achievement in key subjects in the curriculum (see Table 2d in Chapter 2), and increased indiscipline (often manifested in school strikes) bear witness to this. This unsatisfactory situation is associated with a number of factors. First, the rhetoric (and perhaps conceptualisation) of curriculum relevance is skewed in the direction of emphasis on mechanical impartation of practical production skills, attitudes and values. In terms of underlying beliefs, time, and application of financial resources, this emphasis detracts from concentration on development of the intellectual abilities and skills - through nurture of communication, mathematical, scientific, technological, and social capabilities - which ought to be the basis of learning in general education.

Second and closely related to foregoing, harmonisation of the 35 subjects in the secondary curriculum has yet to be carried out in terms learning skills and viability in the provision of facilities, instructional materials, and teachers. Third, centralised curriculum development and examination system geared to certification and selection for further education have adverse effects. In particular (i) teacher-based curriculum development, which ought to take account of local environments and enliven student learning, receives inadequate attention; and (ii) systematic formative monitoring of the overall learning experience of students has not been established on a national basis.

5.4.3 Cost, Financing and Management

Although the problems afflicting secondary education could, to an extent, be attributed to factors outside education (such as historical disparity in the processes of modernisation, a rapidly growing population, and a sluggish economic growth rate), there is evidence that causality could usefully be sought from a juxtaposition of within-education factors. In this regard, approaches to costing, financing and managing education are key.

First, the issue of what constitutes the totality of essential learning requirements in schools has not been sufficiently addressed. As a result, a wide range in costs of resources demanded by schools has developed. Equally important, the establishment of an appropriate unit cost needs to be accompanied by an appropriate balance in meeting salary and non-salary requirements of schools.

Second, since the late 1980s household contributions to secondary education have risen considerably. Given that household contributions to physical facilities and instructional materials was meant to be optional, a growing proportion of households are making contributions below what is needed or are opting out of secondary education for their children if they cannot afford the needed levies. Largely as a consequence, the majority of schools lack facilities (particularly for learning science) and instructional materials, and are thus, low quality institutions. A related development is the observable fact that the more affluent households strive to have their children enrolled in the few older and more established schools that have managed to maintain a measure of quality. Consequently, there are too many primary school leavers chasing a few quality secondary schools, leaving the not so popular poor quality schools under-enrolled.

Third, in spite of policy guidelines in Sessional Paper No. 6 (Republic of Kenya, 1988) and the GoK's 1989 decision to bring under its ambit all former *Harambee* schools, systematic planning of the expansion of secondary education has not been fully developed. For instance, decisions on establishment of new schools as opposed to expanding existing ones, or establishing boarding facilities continue to be made by communities and DDCs without the benefit of a rationalised overall plan of action that takes into account availability of human and other resources. As opposed to the recommended ideal that public secondary schools should be at least triple-stream institutions each with an enrolment of 480 students, the 2764 public secondary schools in existence in 1996 had between them less than one and half streams per school.

Fourth, the human resource in secondary schools is in need of improvement. In most schools, professional management (including accountability in the utilisation of resources) needs to be backed up through (a) relevant training of heads and members of BoGs, and (b) a clarification of the legal position of the BoG and the PTA. Equally important, the morale and motivation of the teaching force need to be raised through enhancement of extrinsic and intrinsic rewards.

5.5 STRATEGIES

The following three complementary sets of strategies will be adopted in order to improve on the current status of secondary education.

5.5.1 To increase access and participation:

- (a) arrest decline in the GBR and ensure that the enrolment growth rate keeps pace with the increase in the population of the eligible age group;
- (b) improve the transition rate from primary to secondary school;
- (c) reduce gender and regional disparities in enrolment;
- (d) increase the course completion rate through reduction of the dropout rate;
- (e) increase opportunities for the disabled by systematising integration into normal secondary schools and planned development of special schools.

5.5.2 To raise relevance and quality:

- (a) improve the management infrastructure and climate in schools;
- (b) review the curriculum to give emphasis to learning skills which constitute the essence of learning in general secondary education;
- (c) ensure continuity between the primary, secondary and tertiary curricula;
- (d) develop teacher-based curriculum development through appropriate pre- and in-service training;
- (e) provide essential physical facilities and instructional materials to all schools; give special attention to the younger schools, particularly the former *Harambee* schools;
- (f) improve the quality of the KCSE exam and develop a separate national formative monitoring system;
- (g) develop and implement criteria for effective teacher professional progression and raise teacher morale and motivation;
- (h) improve management down to the institutional level.

5.5.3 Improving Resource Mobilisation, Allocation and Accountability. To ensure sustainable efficiency and effectiveness of resource mobilisation, allocation and accountability, the following strategies will be adopted:

- (a) base financing on rationalised totality of essential learning requirements, including a unit cost appropriately balancing total salary and non-salary recurrent costs;
- (b) make the curriculum manageable in terms of time and cost;
- (c) rationalise cost-sharing between GoK, households and communities with a view to making secondary education affordable to households;
- (d) base expansion of secondary education on carefully planned, but localised norms which include school mapping;
- (e) empower stakeholders at the local level through decentralisation of management and financing to LGAs, BoGs and PTAs;
- (f) define the location of accountability for various educational functions through delineation of the responsibilities of MoE, LGAs, BoGs and PTAs.

5.6 ACTIVITIES AND PROGRAMMES

In pursuit of the foregoing sets of strategies, activities - the combined effect of which is expected to be improved efficiency and effectiveness in the delivery of secondary education - will be carried out under the following interrelated programmes (i) legal and management infrastructure, (ii) physical facilities, (iii) instructional materials, (iv) alleviating inequity, (v) curriculum development and assessment, and (vi) the teaching force.

5.6.1 Legal and Management Infrastructure

- (a) *Education and Training Act.* The management of education and training will be streamlined under one Act of Parliament which will cover all aspects of the sector including those currently placed under the Education Act. Detailed recommendations are in Chapter 10 on sector management.
- (b) *Decentralisation to Local Government Authorities.* The professional and financial management of secondary education will be devolved to LGAs through appropriate amendment to the Local Government Act. Under each LGA (county council or municipality) a District Education and Training Board (DETBoard), with an appropriate secretariat, will be established to, *inter alia* take over responsibilities currently carried out by district education boards. The proposed membership and functions of the DETBoard are stated in Chapter 10 on sector management.

- (c) **School Management.** Each secondary school will be managed by the headteacher with the participation and guidance of a restructured board of governors (BoG). Each school will be encouraged to establish a PTA, but the BoG will be the school's main management body. The BoG will be reorganised to include more PTA members. The membership and functions of the proposed BoG and PTA are stated in Appendix III. To improve the management of schools, appointment of headteachers and members of the BoG will be streamlined and systematic induction programmes established. Experience gained through training by the Kenya Education Staff Institute and peer interaction under the aegis of the Kenya Secondary Schools Heads' Association (KSSHA) will be built upon. Exemplary schools will be used as models for training purposes. In carrying out training particular attention will be given to (i) planning (including budgeting) on the basis of stated objectives, and management of resources; and (ii) professional leadership based on collegiality among staff, student participation, and active involvement of parents and communities.
- (d) **Audit of School Accounts.** With central government support, LGAs will be required to establish an efficient audit system for secondary school funds. The audit system will aim at eliminating current incompetence, delays and lack of transparency. Specific measures will include establishing (i) an audit capacity commensurate with the task; and (ii) a rationalised scheme of service (including training and incentives) for auditors, school bursars and accounts clerks. Heads of schools without an establishment for accounting non-teaching staff will be required to personally keep the schools' books of account and will be systematically trained in the task prior to taking up their appointments. To enhance accountability (i) in addition to being subject to disciplinary action, heads whose schools' accounts are not properly kept will not be considered for promotion; and (ii) disbursement of education grants from MoE to LGAs and from LGAs to schools will only be made where satisfactory audited accounts have been submitted according to dates set in advance.
- (e) **Cost and financing will be streamlined.** The first step will be to establish a reasonable cost. School demands on households have continued to escalate with consequences such as (i) students who dropout because their families are unable to meet the demands; and (ii) schools that have accumulated large debts because a large proportion of students cannot meet their dues in good time. A number of studies (for example CESA, 1994) have established that to an extent the escalation of school demands is attributable to items not directly contributing to teaching-learning. Such items include expensive uniforms, sporting equipment, boarding equipment, tools and levies for prestigious projects such as swimming pools, motor vehicles and expensive school halls. A major opportunity cost of meeting these peripherals is less money spent on instructional materials and essential facilities. To correct the situation, a

study, whose objective will be to arrive at a viable unit cost, will be carried out by MoE to establish norms for essential learning requirements.

Second, within-school budgeting will be streamlined. The proposed unit cost, which will reflect a sensible balance between salary and non-salary recurrent expenditure, will be the basis of a consolidated school budget in which all revenue (from both public and non-public sources) is reflected. The practice whereby schools keep more than one set of account books will be discontinued. Each school will be encouraged to perceive its budget as a key tool in working for its professional success. To augment revenues, schools will be encouraged to develop income-generating activities and to make arrangements for the sharing of facilities and materials between neighbouring institutions.

- (f) *Quality Assurance, Monitoring and Formative Guidance.* Improvement will be made on two current untoward practices. First, the potential of the school head as a crucial leader in the teaching-learning process has not been fully exploited. The aim will be to weave teaching staff and students into a coordinated team with high aspirations to achieve, as opposed to current emphasis where implementation of curriculum is left to the efforts of individual teachers. Moreover, within neighbouring schools full advantage is not taken of experienced heads and subject teachers as pace setters in a peer consultative process.

Closer involvement of school inspectors will be enhanced to ensure regular and professional collegial interaction between them and teachers for improved teaching and learning. The following measures will be taken to improve the situation:

- (i) The head's successful leadership in curriculum, which will receive attention in training, will be made a central requirement for the promotion of serving heads. A suitable evaluation criteria will be developed.
- (ii) A system whereby experienced heads and subject teachers give professional guidance to colleagues in neighbouring schools will be institutionalised. The emphasis in the proposed system, whose inauguration will be discussed with KSSHA and teachers' professional associations, will be on peer assistance and on formal monitoring. Suitable material incentives for the assisting heads and teachers will be considered. Such incentives will include certificates or letters of appreciation and professional advancement.
- (iii) A quality assurance and monitoring unit based at the provincial level and reporting to the National Education and Training Commission will be established (details are in Chapter 10 on

sector management). A selection criteria, clearly detailing the career progression and prospects will be developed for officers in this unit.

5.6.2 Physical Facilities

Kenya's secondary schools are characterised by variety in the size and quality of buildings. For instance, (i) reflecting a smaller class size at independence and soon after, some of the oldest schools have classrooms and science laboratories which are too small for current classes of 40+; (ii) many of the newer schools have teaching rooms which are too small because they were not built to specifications; and (iii) in most schools buildings and other facilities and equipment are poorly maintained. During the plan period, physical facilities will be improved as follows:

- (a) **Maintenance of Existing Facilities.** A culture of maintenance will be promoted, with DETBs, BoGs, and PTAs being required to include the maintenance of existing facilities in their planning and regular budgeting. This will be done through improved school-based training in identified centres of excellence.
- (b) **Establish Essential Requirements.** In conjunction with the ministries of health and public works, MoE will develop and, through DETBs, publish benchmarks on basic physical facilities for secondary schools. New facilities will be required to comply with these benchmarks but with locally approved adaptations.
- (c) **Building Code.** Emphasis will be placed on putting up affordable but functional school buildings. The assistance of the ministry of works will be sought in developing building codes which maximise the use of cheap local materials and labour.
- (d) **Mode of Expanding Secondary Education.** The cardinal approach will be to base expansion on *careful planning*, an approach which has personnel establishment implications at MoE and the LGA level. To conserve on development resources, expansion, which takes advantage of the *school mapping* approach, will be based on the following order of priority: (i) in most parts of the country, *expand existing single- and double-stream schools* to at least triple-stream institutions before establishing new ones; and (ii) as opposed to being boarding, *new schools should be day* institutions. Following measures to develop day schools as quality institutions, admission policy will be reformed to ensure that students attend the schools nearest to their place of residence. Admission will gradually be decentralised to the school level.

- (e) **Boarding vs. Day and Mixed vs. Single Sex Schools.** The foregoing approaches notwithstanding, it is recognised that expansion of secondary education is likely to lead to controversy. Conflicting views and wishes exist with regard to the merits and demerits of day vs. boarding schools, mixed vs. single-sex schools, and the most practical ways of providing education to scattered populations - such as in ASAL. To help resolve these controversies, and more important to facilitate planning, *investigations will be carried out by MoE in 1998 to establish the distribution, accessibility, capacity and quality of existing secondary schools.* Among variables to be investigated will be:
- (i) mode of transport and security as they relate to distance between home and school;
 - (ii) parental and community preferences for boarding or day schools, and for mixed or single-sex schools and whether these have impact on performance;
 - (iii) causes of current lower achievement in day schools, and
 - (iv) cost implications of boarding schools as compared to those of day schools.
- (f) **Facilities for the Disabled.** The special needs of disabled children will be taken into account in putting up school facilities. LGAs will be encouraged to establish special schools for disabled children who on account of the severity of their disabilities cannot be integrated into normal school even though they qualify for secondary education.
- (g) **Financing Physical Facilities.** Currently, the financing of physical facilities in public secondary schools is undertaken by parents and communities. This responsibility places a heavy burden on households and is related to each community's ability to provide the necessary resources, a factor leading to inequity. During the plan period GoK will endeavour - either through boosting LGA revenues and, where necessary, increased central government grants - to create a viable partnership in the development of physical facilities. For instance, where communities undertake to provide labour and local materials (such as locally-made bricks and furniture) public funds will be allocated to purchase the rest of the materials (such as timber, roofing materials, fittings, and science equipment). *Inter alia*, the development of such a partnership should eliminate the practice whereby demands for heavy development levies lead to dropout of students from poor households.

5.6.3 Instructional Materials

Instructional materials - especially textbooks, science equipment, reference materials for both teachers and students, and stationery - are a key variable in student learning at the secondary school level. Two factors have adversely affected the supply of instructional materials. First, as GoK grants for tuition materials dried up in the 1980s, most schools resorted to requiring households to take up responsibility for purchasing textbooks on optional basis (Makau, 1985). This has meant that students from households with meagre incomes have not been supplied adequately, thus lowering the quality of their education. Moreover, the systematic stocking of libraries has been relegated to often rare donations by communities, NGOs and well-wishers. Second, constraints in resources for instructional materials have been exacerbated by absence of a systematic approach to provide for the widened curriculum introduced in the mid-1980s and the 1989 adoption of former *Harambee* schools as public institutions. In this regard, inadequacy of equipment and materials for teaching and learning science is glaring. During the plan period, the following improvements will be made:

- (a) *The curriculum will be reduced.* Reduction of curriculum size both in terms of subjects and content will lead to reduced costs to the household and to government.
- (b) *Liberalising the Textbook Market.* The book market will be liberalised. Curriculum authorities will issue guidelines containing alternative titles. While not tying schools to these guidelines, they should assist teachers in selecting their requirements.
- (c) *Schools will be made responsible for supply of instructional materials.* Each school will plan, purchase and supply textbooks, essential reference materials, stationery and classroom materials to its students and teachers. Schools will also be encouraged to budget for and regularly stock their libraries. In this connection GoK will allocate funds for the purchase of basic instructional and library materials.
- (d) *Supply of science equipment.* In collaboration with LGAs, MoE will establish the essential minimum requirements for science teaching-learning. Based on estimates of requirements from each school, each LGA will purchase the requirements in bulk and ensure that all its schools are adequately supplied. With regard to funding, a partnership between GoK and households will be developed with the idea of lessening the current financial burden on the latter.
- (e) *Instructional Materials and Equipment for the Disabled.* Working through the Kenya Institute of Special Education, and in collaboration with interested donors and NGOs, GoK will set aside grants for the development of learning materials and special equipment for disabled students.

5.6.4 Alleviating Inequity

GoK will seek to translate into reality the idea that no child who qualifies for secondary education should be denied a place on count of inability to meet school dues. The guiding principle will be to separate participation and ability to pay while not forcing schools to absorb non-payment in some unspecified ways. Bursaries from GoK, communities, NGOs and well-wishers have achieved some success in assisting needy students, but a number of drawbacks are apparent. The practice in the majority of schools is to spread the GoK bursary to as many students as possible, often with the consequence that many needy students are forced to dropout in spite of the share allocated to them. With regard to some non-public bursaries and scholarships, allegations on lack of transparency and sustainability through the four-year course have been voiced. During the plan period, the situation will be corrected as follows:

- (a) *Identifying the Needy.* Building on clear means testing measures developed at the primary school level, the systematic identification of needy students will be developed. Primary headteachers will be encouraged to communicate certified information on pupils who benefited from fees remission to the heads of secondary schools admitting qualified KCPE candidates. Using this information, together with any new data, heads of secondary schools will compile lists of needy students.
- (b) *Establishing a Consolidated Bursary Fund.* Except in the case of tied scholarships, each LGA will establish a consolidated bursary fund. As part of its planning for education, each LGA will be required to estimate the extent of assistance to the needy, and will endeavour to allocate part of its revenue to the fund. NGOs and well-wishers will be encouraged to make contributions to the consolidated fund.

Bearing in mind considerations of regional equity, central government bursary grants will be channeled to the LGA funds. Disbursement from the fund will be based strictly on the lists of the needy supplied by secondary schools. Each head of schools and a senior officer in the LGA will be required to certify in writing that the foregoing disbursement procedure has been adhered to. Continued central government allocation to the fund will be dependent on adherence to the procedure and satisfactory audit. For increased transparency and accountability, bursary allocations will be made public both at the LGA and school level.

5.6.5 Curriculum Development and Assessment

The secondary school curriculum is often criticised on the grounds that it is (i) too broad and does not allow for concentration on learning essential skills; and (ii) unnecessarily expensive in terms the financial outlay required for teacher remuneration, physical facilities and instructional materials. There is also criticism that the assessment of curriculum implementation is too dominated by the KCSE

exam and does not give sufficient attention to formative monitoring. During the Plan period, the following improvements will be made:

(a) *Making the Curriculum Relevant, Manageable and Less Expensive.* A major problem would seem to be belief that the curriculum should concentrate on the impartation of skills, attitudes and values that are directly replicable in the economy. While it cannot be denied that there is a relationship between school learning and the socioeconomic activities into which school leavers proceed, there is a danger that attempts to make the relationship too direct - e.g. teaching 'appropriate practical subjects' - may make learning artificial and superficial, and therefore less of the natural process that it ought to be. Research evidence shows that, in contrast to specialised skills obtained through practical school disciplines, employers place more value on generalised mental and attitudinal skills (such as reasoning, problem solving, facility in communications, initiative and confidence) acquired through learning of the much criticised 'theoretical' curriculum (Court and King, 1978; Forster, 1965; Psacharopoulos and Loxley, 1984). These same skills are at the core of what is needed for further education and self-reliance. As stated in the objectives, building on learning in the primary school, the secondary school curriculum will be reviewed such that teaching-learning gives emphasis to these generalised skills; in the process the financial outlay will be reduced. The following specific measures will be taken:

- (i) Bearing in mind that there is little demand for more than half of the 35 subjects in the current curriculum and that the less popular subjects are expensive in relation teacher training and staffing, facilities, instructional materials, and conduct of examinations, the number of subjects in the future curriculum will be reduced.
- (ii) The curriculum will be organised into a compulsory core and optional subjects. Subjects will be categorised into the following four groups:

GROUP I English, Kiswahili and Math;

GROUP II Biology, Chemistry, Physics;

GROUP III Agriculture, Art and Design, Business Studies, Foreign Language, Geography, History and Government, Home Science, Industrial Education, Music, Religious Education or Social Education and Ethics.

As computers and related technologies become available in schools, Information Technology will be incorporated in the learning of the curriculum.

The number of subjects studied in Forms 1 and 2 will be reduced from the current 13 to 10, with all subjects in groups I and II being compulsory. In Forms 3 and 4, for purposes of the KCSE exam, a student will offer a minimum of 7 and maximum of 9 subjects selected as follows: all three subjects in group I, at least two subjects from group II, and at least one subject from group III.

- (iii) In addition to reduction of the number of subjects, curriculum development will be geared to
- relating selected syllabus content to development of skills and abilities among learners;
 - eliminating unnecessarily lengthy content and duplication between syllabuses;
 - guiding teachers towards adapting the curriculum to the local environment so as to make learning student-centred; and
 - evaluating outcomes of curriculum, in particular through tracer studies of secondary school leavers, as a way of arriving at further improvements.

(b) ***Improving Selection and Certification.*** Because of the importance attached to the selection and certification functions of the KCSE exam, regardless of what is stipulated in the curriculum, most schools concentrate on the examination and ignore anything that they think will not be examined. This undermines learning as a natural process by hindering the internalisation of essential abilities and skills. Taking advantage of previous experience in research and development (R&D) in examinations, the research unit of KNEC will be strengthened so as to enhance the development of examinations which support desirable aspects of the teaching-learning transaction. In particular, R&D will aim at developing (i) test papers which predominantly measure, as opposed to mastery of content, the abilities and skills specified in the revised curriculum; and (ii) more decentralised testing approaches (including continuous assessment and performance of practical tasks). Further, investigations will be carried into ways of broadening the criteria for selection into further education and training, e.g. through special selection tests and making a secondary school leaving certificate a requirement for selection into university.

(c) ***Development of Formative Assessment at the National Level.*** A formative monitoring system, based on national samples of non-KCSE classes, will be developed. The aim will be to analyse the samples' performance in criterion-referenced tests (e.g. in math, science and

language) in relation to factors (e.g. inputs into the school system and learner characteristics) that influence learning. A major objective will be to systematically identify where and how improvements to learning could be made. Again, a strengthened KNEC R&D unit will be a prerequisite.

5.6.6 The Teaching Force

The professional development and efficient management of the teaching force are crucial factors in raising the relevance and quality of education. A relevantly qualified and highly motivated teaching force is a prerequisite for the promotion of high achievement among students. Equally important, because teacher remuneration is the most expensive item in the provision of secondary education, increased efficiency in the management of the teaching force can result in savings that could be used to augment the funding of non-salary requirements of the sub-sector.

- (a) *Raising Efficiency in Staffing.* Data collected from schools indicate that some secondary school teachers have weekly teaching loads as light as ten periods (each 40 minutes long). In 1996 the national average pupils-teacher ratio (PTR) was 16:1. A major contributor to this low ratio is the over-production and deployment of teachers in some arts disciplines. Also contributing to the low PTR is the inefficiency associated with applying a curriculum-based norm for deploying teachers to (i) cater for a curriculum characterised by a high proportion of specialised subjects often offered by less than a stream, and (ii) staff small and often under-enrolled single- and double-stream schools. In addition to the proposed reduction of the curriculum and expansion of schools into at least three streams, the *curriculum-based establishment will be reviewed*. Aimed at *raising the number of students per teacher to a national average of between 25 and 30*, the proposed study will investigate the factors associated with current unsatisfactory deployment and make recommendations for improvement. Special attention will be given to: (i) provision of qualified and experienced teachers to day schools; (ii) over-staffing in some areas while others suffer from under-staffing; and (iii) special subject areas that require low PTR.
- (b) *Teacher Training.* Although in line with GoK policy the proportion of graduate teachers has risen steadily, there is research evidence that the increase has been skewed in favour of arts subjects such as geography, history, and religious education. A mismatch between the output from universities and the needs of schools has occurred. While there is overstaffing in these arts subjects, key subjects - such as English, math and science are understaffed (CESA Team, 1994; Deloitte & Touche, 1994). In addition to continuation of the policy of employing teachers only against existing vacancies (Republic of Kenya, 1989), the following steps will be taken to correct the mismatch: (i) *systematic projection of future teacher needs* will be developed and used as the basis of selecting

trainees, and (ii) *GoK funding will be biased towards courses projected as relevant and of priority.*

In order to enhance teachers' mastery of content, professional training should await the completion of a four-year academic degree. Graduates who choose teaching should then be taken on as untrained temporary teachers. Those who demonstrate aptitude and interest to be career teachers should subsequently be given post-graduate training either through in-servicing or a special university course. A study will be mounted to investigate training of secondary school teachers in general, and in particular the mode, **ACADEMIC DEGREE → UNTRAINED TEACHER → PROFESSIONAL TRAINING → PERMANENT TEACHER.**

- (c) ***Regular Teacher In-servicing.*** It is considered essential that teachers' pedagogical skills and knowledge of content be updated through, *inter alia* regular in-servicing. Using a cascade model and the peer approach proposed above, *regular and continuous in-servicing of secondary school teachers* will be developed. As part of this development, teachers resource centres currently confined to a few districts, will be established in each LGA area.
- (d) ***The Essence of Teacher Professional Development.*** In both pre-service and on-the-job training, emphasis will be placed on inculcating practical pedagogical skills and approaches which prepare the teacher as a medium for translating teaching-learning into a learner-centred process. *Inter alia*, training will give emphasis to two aspects. First, teachers will be trained to appreciate and practise the translation of centrally-developed curriculum guidelines into interesting classroom activities which nurture the initiative and creativity of learners. In this regard, teachers will be trained (i) in the art of continuously evaluating and shaping students' learning; and (ii) using the local environment as a learning resource. Second, all teachers will be trained to appreciate that the success of teaching-learning is positively related to communication approaches which take account of the learner's cognitive and emotive needs. In this regard, teachers will be trained in (i) formative guidance and counselling, including approaches to developing the potential of peer guidance among students; (ii) gender dimensions in teaching-learning; (iii) special skills in guiding the learning of the handicapped; (iv) the role of pupil-to-pupil interaction; and (v) the influence of pupils' socio-economic status on learning.
- (e) ***Encouraging Teachers to Increase their Academic Knowledge.*** Teachers will be encouraged to study for higher academic qualifications, provided that such study does not adversely affect performance of their official duties. Teachers who acquire higher relevant qualifications will be given commensurate promotion or salary increase.

- (f) ***Raising Teacher Morale and Motivation.*** It is expected that teacher job-satisfaction will be raised through implementation of this MPET's recommendations on improvements to the school system (e.g. with regard to physical facilities, instructional materials, professional development, proactive involvement of KSSHA, the teachers' union and associations). To raise the extrinsic motivation of teachers, (i) teacher remuneration will be favourably reviewed; (ii) LGAs and BoGs will include provision of teacher residential housing in their planning; and (iii) special allowances for teachers (e.g. those serving in special schools for the disabled or in hardship areas, and heads of subject departments) will be favourably reviewed.

CHAPTER 6

UNIVERSITY EDUCATION AND TRAINING

6.1 INTRODUCTION

University education, the apex of learning in the formal system, takes two forms: (i) teaching-learning, and (ii) research, the cutting edge of knowledge, broadly defined to include the development, advancement, storage and dissemination of ideas and associated values. University education, which targets the development of both individual students (including scholars) and society, is expected to contribute to the building of the nation's human resource. The quintessence of university education should be the production of a cadre of highly qualified manpower equipped with (i) the production skills necessary for initiating and advancing economic development and (ii) the vision, attitudes and values that form an essential part of the base for translation of material outputs of development into overall well-being of the population. As indicated in Chapter 1, macro-development policy stresses the vital necessity of fully industrialising the economy by 2020. University education is expected to play a central role in this endeavour.

6.2 OBJECTIVES

Bearing the foregoing in mind, university education will be guided by the following objectives:

- 6.2.1 To develop in students and scholars the ability to think independently, critically and creatively;
- 6.2.2 To adapt, develop, advance, preserve and disseminate knowledge and desirable values (including the spirit of service to others), and to stimulate intellectual life;
- 6.2.3 To educate and train the high level manpower needed for accelerating development through industrialisation of the economy;
- 6.2.4 To nurture the internalisation of universal knowledge, including key technological advances, with a view to harnessing it for national development;
- 6.2.5 To provide, through basic and policy research, knowledge, skills and services that help solve the problems facing society;

- 6.2.6 To help create a society in which both merit based on diverse talents and equity in development are recognised and nurtured.

6.3 POLICIES

In order to achieve the foregoing objectives, the policy framework will be geared to expanding access and participation in university through approaches which raise relevance and quality, increase efficiency through rationalised location of accountability in the mobilisation and application of resources, and enhance equity. Development will be based on the following specific policies:

- 6.3.1 The university sub-sector will be reviewed with the aim of making the programmes offered central to the development of the country's human resource base in general and in particular, the high-level manpower needed for industrialising the economy.
- 6.3.2 The establishment and maintenance of quality, as opposed to expansion that largely satisfies social demand, will be given priority. In this regard, consideration will be given to rationalised approaches in developing teaching as compared to research, and undergraduate courses as compared to post-graduate studies.
- 6.3.3 The management and financing of university education will be streamlined such that CHE and the organs of the individual universities are fully responsible for planning as well as implementation of programmes, and are accountable for outcomes.
- 6.3.4 Each university's budget will be based on allocation norms which take into account different resource requirements for different departments and programmes.
- 6.3.5 While grants from the public budget will continue to be a major source of university funding, in order for an increased share of the total public allocation to be made available to basic education, universities will be expected to raise an increasing proportion of the financial resources they require.
- 6.3.6 In order to ensure equity, delayed cost-sharing through HELB loans will be developed as the main approach in tapping household financial contribution to university E&T. A proportion of HELB bursaries will be set aside to assist students who are unable to meet direct household costs at university. In way of giving incentives to outstanding learners to enrol in courses which are particularly relevant to the county's manpower needs, HELB will award a limited number of scholarships.
- 6.3.7 A proportion of HELB funding will be earmarked to encourage female enrolment in math/science-based and technological courses.

- 6.3.8 Through carefully considered incentives, GoK will encourage private universities to expand and increasingly gear their courses to the requirements of the economy.

6.4 OVERVIEW OF CURRENT STATUS OF UNIVERSITY EDUCATION

Since 1963 education in Kenya has been characterised by accelerated quantitative expansion. The university sub-sector has been no exception. While on the whole expansion has been beneficial, the greater emphasis placed on it as a response to social demand as opposed to meeting specific manpower demands in the economy is open to question. Most of the issues addressed in this MPET spring from the interplay between quantitative growth, financing and management, and the quality of output and outcomes of university E&T.

6.4.1 Quantitative Growth

The most salient feature of university education has been rapid quantitative growth in the number of institutions and enrolments, particularly during the 1980s and early 1990s. The number of public universities increased from one in 1970 to five in 1994, with the student population rising from 3,443 in 1970 to 9,044 in 1984 and peaking at 43,038 in 1994/1995 before declining by about 12% to 37,973 in 1996/97 (Republic of Kenya, 1995b); MoE statistics, 1997). Table 6a shows that the 1987/88 and 1990/91 academic years were the two major points of growth.

Table 6a. FIRST YEAR INTAKE AT PUBLIC UNIVERSITIES

ACADEMIC YEAR	INTAKE	PERCENT CHANGE
1985/86	2,732	-
1986/87	3,550	+30
1987/88	8,774	+147
1988/89	7,242	-17
1989/90	7,349	+1
1990/91	20,837	+184
1991/92	9,463	-55
1992/93	10,189	+8
1993/94	9,215	-10

Source: Deloitte & Touche (1994)

The number of private universities grew from one in 1970 to twelve in 1995/96 which, according to CHE statistics, had a student enrolment of 4,845 (about 11% of the total university enrolment).

In spite of the overall rapid expansion, gender disparity in access and participation has continued to characterise university education. In 1995/96 out of 40,065 students in public universities only 26% were female. Females fared much better in private universities where in the same academic year their share of the enrolment was 48%.

6.4.2 Relevance and Quality

Rapid quantitative growth has been associated with a down turn in the relevance and quality of university education. First, the growth has not been accompanied by commensurate increase in essential resources. All universities have been characterised by serious shortfalls and inadequacies in areas such as physical facilities, teaching-learning and management technologies, research amenities, and professional and management staff.

Second, and to an extent reflecting the fact that the quality of academic grades of most secondary school students qualifying for university entry is skewed in the arts' direction as opposed to science and math, in their attempt to tailor resource constraints to increased enrolments, the universities have resorted to putting emphasis on development of arts-based courses in general and in particular teaching degrees in arts subjects. In spite of university missions originally aimed at addressing the variety of manpower requirements in the economy, most universities have had no option but to tilt the balance between science-based and arts-based programmes in favour of the latter which are seemingly cheaper to finance and easier to teach and manage.

Third, the outcome of bowing to social demand through tilting the balance in favour of arts-based courses has been exacerbation of mismatch between formal education and requirements of the workplace, a factor associated with growing unemployment or underemployment of university graduates.

Fourth, staff morale and motivation have been eroded by the declining purchasing power of their salaries and unsatisfactory conditions in their place of work including work overload in most departments and inadequacy of essential provisions.

Fifth, an unsettled situation in university campuses has developed. This would appear to be associated with inadequacies in the provision of essential resources, the social pressures exerted by large numbers in classes, low morale among staff, increasing inability of households to meet direct costs of university education, rising unemployment of university graduates, and perceptions of limited academic freedom. The outcome has been frequent disturbances often taking the form of strikes leading to frequent unscheduled closures of universities.

Commenting on the ramifications of rapid quantitative growth, a study on the employment prospects of university graduates (Deloitte & Touche, 1994:7) observes:

This decision to admit almost 21,000 new students (in 1990/91) to the public university system resulted in pushing the varsities beyond their capacity. Large classes of over 500 students were not unusual and the tutorial system was on the route to becoming a thing of the past. As a result of the two periods of double intakes [i.e. 1987/88 and 1990/91], controversy and problems with the introduction of the 8-4-4 system...and the [frequent and unscheduled closures] of the universities, the net result... has been a decline in academic quality. Unfortunately, in some instances, a common form of teaching has become the dictation of notes in a rote-like manner. One view point is that the teaching of skills in critical thinking and ability to reason are not widely in evidence.

6.4.3 Financing

The rapid growth of university enrolments has coincided with rising constraints in the public budget, resulting in the state's inability to adequately cater for social services such as education. The combination of increased enrolments and budget constraints have distorted public budget allocations to the various E&T sub-sectors. There is clear evidence that rapid expansion of enrolments has meant that public expenditure on university education has grown faster than the total budgetary allocation to education, leading to a decline in allocations to other sub-sectors. Between 1990/91 and 1993/94 the allocation to the university sub-sector grew at annual rate of 16.7% as compared to 11.8% for the total education budget. With regard to declining allocations to other sub-sectors, it is instructive that while in 1980/81 public universities absorbed 11.2% of the education budget, by 1988/89 this proportion had risen to 16.4%, peaked at 21% in 1990/91 before declining slightly to 19.4% in 1993/94. This situation has had deleterious effects on enrolment rates and quality in primary and secondary schools (Cooksey, Court and Makau, 1994; Deloitte & Touche, 1994).

In spite of the larger share allocated to the sub-sector, universities have continued to experience inadequacies. For instance (i) the maintenance of infrastructure - including physical facilities, management and teaching / research technologies, vehicles, and communications amenities - has not been adequately resourced, leading to ineffectiveness in key processes; and (ii) development projects aimed at addressing inadequacies in physical facilities have stalled largely because of insufficient funding.

The universities suffer from inability to balance their operating budgets. As of 30 June 1994, the total debt of the public universities stood at about Kshs 132 billion of which 636 million was in the recurrent vote and 686 million in the capital vote (Republic of Kenya, 1995b). A major contributing factor to this large debt is the system's failure to fund and manage tuition on one hand and on the other, accommodation and catering as two separate sets of operations. In addressing the issue, the Mungai Committee observed:

The current grants the public universities get from the Government can adequately cover tuition needs, but cannot [in addition] cover catering and accommodation requirements. If, therefore, catering and accommodation are separated from tuition, so that students cater for their own food and accommodation, the universities can improve academic activities with the current grants in aid. At present, virement is done from the tuition grant package to subsidise catering and accommodation (Republic of Kenya, 1995b:236).

Describing the paradoxical situation arising from the universities' attempts to address the issue by requiring students to pay for their food 'as-they-eat' but at a rate below market prices, the Committee noted that tuition funds have continued to be siphoned to accommodation and catering. Thus, none of the two sets of requirements are being met satisfactorily, a situation associated with disturbances in university campuses:

The difference between [the cost of food charged by the catering units and prevailing market prices is] an assumed subsidy, which has turned out to be a very heavy debt burden on the part of the public universities. Any attempt to raise food prices in the kitchens has been met with stiff opposition and this has been the root cause of threatened riots (Republic of Kenya, 1995b:237).

The combination of budgetary constraints and rising enrolments has brought to the fore the issue of who should pay for university education. During the closing years of colonial rule and extending into the first decade of independence, the state was able to meet nearly all the costs of educating the relatively small number of university students, the great majority of whom readily found employment largely in openings created through departure of expatriate personnel. As enrolments began to rise and suitable employment openings for graduates failed to keep pace, questions began to be asked as to who should take the risk in investing in university education. One response has been to introduce direct fees to be paid by students. In a country characterised by large disparities in household incomes (Central Bureau of Statistics, 1996), introduction of direct user fees has raised the salience of equity in providing university education to all qualified aspirants.

To address the question of who should pay in general and in particular, how needy students should be catered for, a loan and bursary scheme has been launched. Under a 1995 Act of Parliament, HELB was set up to administer the scheme. The loan takes the form of delayed payment by the student, while the bursary is meant to assist a student in meeting user fees and costs up-front. While in principle the system is sound, it is beleaguered by a number of problems. First, the resources available to HELB are below what is required to satisfactorily meet the funding of students. According to CHE, in 1994 the student's share of total costs was estimated to average at about 42%. However, currently HELB does not have the finances to match this proportion for most students. It has been claimed that for many needy students the amount received through both loan and/or bursary falls far short of this proportion, thus requiring students to raise substantial amounts up-front. Second, the under-capitalisation of HELB is partly explained by low rates of loan recovery since the scheme was enunciated in 1974. By June 1995, about Kshs 5.8 billion had been loaned to students. Out of this amount Kshs 600 million had matured for collection, but only Kshs 204 million (34%) had been recovered. Third, complaints by students and households about procedures in awarding loans and bursaries would seem to indicate room for improvement in the administration of the scheme.

Partly as a result of fiscal constraints, the allocation of GoK grants to universities for recurrent expenditure has increasingly relied on a line item approach, with the grant for a year being arrived at largely on the basis of what was allocated the

previous year rather than on projections of actual needs of the universities. The universities have been partly responsible for this situation. First, a university-based budgetary planning approach in which each institution conceptualises the public treasury as only one source of funding has been slow to take root. As a result, other sources - including investment into income generating ventures - have not been fully exploited by the universities. In a recent workshop on institutional management in higher education, it was suggested that a university could generate between 35 and 40% of its operating revenue. Although Kenya's public universities have increased the share of their revenue from non-public sources, the suggested proportion has not been attained (UNESCO et al., 1996). Second, comprehensive needs-based criteria for planning university budgets have not been fully developed. Currently, university funding is based on average unit cost per student. This is unsatisfactory because it fails to take into account the varying needs of different programmes and thus, does not allow for holding faculties and departments accountable for their outputs.

6.4.4 Management

The problems of providing for the enlarged university sector are closely related to a number of issues in management. Uncertainty about funding has exacerbated inefficiencies associated with inertia to accept change and what a recent report defines as a lack of general managerial skills in universities (UNESCO et al., 1996). Three factors are indicative of shortcomings in university management. First, systematic planning is greatly hampered by a backlog in the audit of accounts. Second, the roles of university organs - the council, senate, faculty and department - has become blurred. As a consequence, systematic solutions to issues that underpin efficiency and effectiveness - such as staff appointment procedures, development and assessment; academic tenure; student assessment; and the non-teaching staff establishment - have not been worked out and implemented. Third, there would seem to need for a better balance in the relationship between the university councils and the central government. A gradual shift of power in the management of universities in favour of GoK ministries would seem to have weakened the autonomy in return for accountability which, according to the Acts of Parliament setting up the universities, ought to be the basis of their governance (Republic of Kenya, 1995b).

The establishment of CHE as an apex body of higher education is a positive move toward solving management problems in universities. CHE has been charged with responsibilities for policy formulation, planning, budgeting, financing and investment planning. However, (i) the legal infrastructure reflecting these responsibilities has yet to go through all stages, and (ii) the human resource capacity and infrastructure necessary for CHE to effectively perform all its functions need to be developed.

6.5 STRATEGIES

The following three complementary sets of strategies will be adopted in improving on the current status and thus, raising the efficiency and effectiveness of university education.

6.5.1 To increase access and participation:

- (a) relate expansion of university education to the availability of essential requirements;
- (b) develop cheaper approaches in expanding university education;
- (c) encourage private universities to expand;
- (d) reduce gender disparity in university enrolments and enable poor households to participate.

6.5.2 To improve relevance and quality:

- (a) restructure university programmes and courses so as to take account of projected manpower needs of the economy;
- (b) ensure universities adhere to their stated missions and review the missions in the light of socioeconomic developments;
- (c) provide universities with adequate physical facilities, and teaching-learning and research technologies;
- (d) improve the material and non-material rewards of professional staff;
- (e) improve approaches to teaching, research, assessment of student learning, and student guidance and counselling;
- (f) establish linkages between universities and employers in general, and in particular, industry;
- (g) harmonise university curricula with those of secondary schools and post-secondary VOC-TEC training institutions.

6.5.3 To improve resource mobilisation, allocation and utilisation, and to enhance accountability:

- (a) enable and encourage the university community to carry out its responsibilities as laid down in the respective Acts of Parliament;
- (b) base state grants on comprehensive norms developed by CHE in collaboration with the universities, and discussed and agreed upon with the relevant GoK ministries;

- (c) increase the non-public proportion of university revenues in order to (i) give the state more manoeuvre in financing other E&T sub-sectors, (ii) raise the salience of university autonomy, and (iii) augment the universities' capacity to offer quality education;
- (d) enhance equity through strengthening HELB and thus, making the loan scheme a viable revolving fund;
- (e) address the issue of how to separate the funding and management of tuition on one hand and on the other, accommodation and catering;
- (f) delineate the roles played by various organs of the university, bearing in mind the need for collegiality and accountability in the management of universities;
- (g) improve dialogue between university authorities and students;
- (h) improve the quality of management through (i) appropriate training of all staff in charge of various functions in the university community; and (ii) provision of a modern management information system; and (iii) give incentives to private universities but relate the former to development of programmes and courses that are relevant to the needs of the economy.

6.6 PROGRAMMES AND ACTIVITIES

In pursuit of the foregoing sets of strategies, activities - the combined effect of which is expected to be improved efficiency and effectiveness in the delivery of university E&T - will be carried out under the following interrelated programmes (i) legal framework; (ii) relevance of university E&T; (iii) expansion of university E&T; (iv) extrinsic and intrinsic staff rewards; (v) quality assurance; (vi) university management; and (vii) efficiency and effectiveness in financing.

6.6.1 Legal Framework

To facilitate overall coordination of policy development and planning, the legal framework for the entire E&T sector, including the university system, will be harmonised through the following measures:

- (a) *Education and Training Act.* The management of E&T will be streamlined under one Act of Parliament which will cover all aspects of the sector including those currently placed under the Education Act (for details see Chapter ... on sector management). Under the new law, a National Education and Training Commission (NETC) will be set up to, *inter alia* advise GoK on policy formulation and planning for the sector. CHB will be the legal link between the university sub-sector and NETC.

- (b) **Universities Act.** An Act of Parliament to harmonise the functions of CHE and those of universities will be enacted giving CHE full responsibility in co-ordinating financing, planning, budgeting and quality assurance in universities.

6.6.2 Relevance of University Education and Training

As proposed for all E&T sub-sectors, the main thrust of policy, planning and implementation at the university level will be to develop a system in which institutional learning is responsive to and is closely related to developments and activities in the country's economy. Towards this end the following activities will be undertaken:

- (a) **Reviewing University Missions.** Bearing in mind existing comparative advantages, the missions of public universities will be continuously reviewed so as to keep them aligned to the manpower needs of the country. Wasteful duplication of courses will be eliminated. Courses for which there is little demand in the economy will be either eliminated or restructured to make them relevant.
- (b) **Establishing Balance Between Arts and Math-Science Courses.** Measures will be taken on the following lines:
- (i) The current preponderance of students taking arts and arts-based courses is not conducive to industrialisation. The science to arts students ratio will be developed to 3:2 by the year 2010.
 - (ii) Teacher training at university will be reviewed to match projected demand in secondary schools, teachers' colleges, and post-secondary training institutions. In particular, attention will be given to the provision of math, science and English teachers in secondary schools. Through collaboration between MoE, CHE and the universities, decisions will be made and implemented with regard to whether teacher training should take the form of either the current integrated B.Ed. or an academic degree followed by post-graduate training in pedagogy (see Chapter 5 on secondary education).
 - (iii) Enrolments in theoretical math-science courses and technological courses will be reviewed with the aim of giving more priority to the latter.
- (c) **Rationing HELB Funding.** To reduce social demand for university education in unmarketable degrees, particularly in arts, HELB funding in both public and private universities will be rationed in favour of students who qualify for math/science-based and technological courses. This rationing will be publicised in secondary schools so as to encourage

schools and students to improve on the current low achievement in math and science. In this respect, through a higher proportion of HELB funding, an attempt will be made to raise the poorer female performance in math and science, a major contributory factor to gender disparity in university enrolments in general and in particular in math/science-based courses.

(d) ***Improving Linkages With the Economy:*** Efforts will be made to ensure greater access of industry to university's intellectual resources and vice-versa. In this regard:

(i) CHE will set up a committee on extra-university linkages. This committee - comprising representatives of CHE, GoK ministries, universities and employers - will, *inter alia* explore ways of strengthening linkages between the universities, the public service and the private sector including industry. The committee will give particular attention to:

- ◆ bottlenecks in the utilisation of research;
- ◆ industrial attachment;
- ◆ improvement of the relevance of courses offered by universities and tertiary institutions, and
- ◆ proposals for the introduction of new programmes and courses.

(ii) Individual universities will be expected to build on existing linkages with employers and industry, particularly with regard to generation of income through research and other contracts, endowments, grants and donations.

(e) ***Improving Assessment.*** The processes of assessment and certification greatly influence relevance. Students' decisions as to what to concentrate on in their learning are cued by the content, form of the assignments and tests, and the test administration process which determine grading and certification. During the plan period, the universities will address shortcomings in assessment (some of them associated with rapid growth in enrolments) such as over-reliance on tests with questions requiring short responses, irregularities in students' preparation of responses to assignments and test (such as the practice popularly referred to as 'xeroxing', i.e. copying responses from fellow students or obtaining in advance contents of a test paper), and lack of reliability and validity in setting, marking and grading. Some of the quality assurance measures proposed in 6.6.5 below are expected to contribute to improvement in the assessment of student learning.

6.6.3 Expansion of University Education and Training

Within the framework of relevance firmly grounded in market demand for university graduates, depending on the availability of resources, university education in public institutions will be encouraged to expand. The emphasis will be on consolidation within existing universities and extension of undergraduate courses to selected post-secondary training institutions. In particular, the following approaches will be explored:

- (a) ***Introducing Flexibility in University Programmes.*** Two approaches will be considered:
 - (i) make university curricula and calendars flexible so that working people can enrol for part-time study during evenings, weekends and vacations; flexibility should also benefit full time students who wish or find it necessary to interspace study with work interludes;
 - (ii) reserve a proportion of university places, both at the undergraduate and post-graduate levels, for graduates of post-secondary institutions such as NPs and teachers colleges - and working adults; this approach should take into account the qualifications and experience of this type of student, with the universities using an appropriate credit transfer system to grant course exemptions.
- (b) ***Strengthening Distance Education Approaches (DEA).*** Building on the experience at the University of Nairobi, CHE and the universities will identify and introduce programmes to be taught through DEA. For instance, the post-graduate diploma for holders of academic degrees could be handled through DEA. During the plan period the possibility of setting up an open university to undertake all DEA programmes will be explored.
- (c) ***Introducing Degree Courses in Post-secondary Training.*** Through accreditation to CHE, a number of NPs, including the Kenya Technical Teachers College, will develop degree level courses for some of their students. This is considered to be a relatively cheaper approach to expansion in that it should avoid the elaborate infrastructure of a fully-pledged university. The approach is also expected to build on the comparative advantage of NPs with regard to a firmly established tradition of practical training and linkages with industry. Working through the committee on extra-university linkages proposed in 6.5.2(f) above, CHE will identify programmes to be upgraded to degree status. This will involve a survey which will also recommend additional equipment and/or facilities needed to strengthen the programme. CHE will thereafter work out modalities for awarding degrees to graduates of the programme.

- (d) *Expanding Post-graduate Studies.* E&T at the post-graduate level are important in that they are key to the development of professional staff for the university and other tertiary institutions, and constitute the source of the managers, researchers, technologists and other professionals needed by the economy. During the plan period, enrolments in postgraduate programmes will be raised to reach a ratio of one postgraduate student for every ten undergraduate students.
- (e) *Expanding and Prioritising Research.* Research enriches and keeps teaching up to date, is the basis for post-graduate study, and encapsulates the idea that learning should lead to independent, critical and creative thinking. Further, research should be a major tool for the universities' efforts to develop mutually beneficial linkages with the public and private sectors of the economy. Research will be strengthened in the following ways:
- (i) Research methodology will be introduced in all undergraduate courses, e.g. through basic courses on both quantitative and qualitative analyses and report writing. To gain practical experience, every student will be required to carry out a research study in his or her university subjects.
 - (ii) Higher priority will be given to research in university funding and management. In collaboration with CHB, the universities will establish an appropriate balance between teaching and research in terms of the allocation of financial resources and the time spent by professional staff on each of the two aspects.

6.6.4 Extrinsic and Intrinsic Staff Rewards

Material incentives offered to the professional staff and job satisfaction are important variables in efforts to raise the quality of university education. Measures will be taken to ensure that universities are adequately supplied with qualified staff; appointments and professional progression are based on merit, free from nepotism and political connectedness; and staff salaries and benefits meet living needs.

- (a) *To ensure adequate numbers of well-trained staff,* the following measures will be taken:
- (i) Staff development initiated under the University Investment Project (UIP) funded through the World Bank will be continued and built upon.
 - (ii) Other existing bilateral arrangements for staff development will be continued, and new scholarships for study outside Kenya solicited.

- (iii) Sabbatical leave for attachment to universities outside Kenya will be strengthened as part of the in-service development of professionally qualified staff.
 - (iv) Linkages between university and the economy will be established, *inter alia* with the aim of giving staff opportunities to gain practical experience in the workplace, and for qualified and experienced workers to spend time servicing as teachers in the universities.
 - (v) CHE and the universities will develop and implement appropriate approaches to on-the-job training of university staff with no previous training in pedagogy.
- (b) *Terms and conditions of service of university staff* will be regularly reviewed to bring them in line with those in the region. Promotion, career progression and remuneration of staff will be based on comprehensive norms which reflect merit and productivity including, for senior staff successful supervision of post-graduate students. Quality research publications, and international and industrial exposure will be considered as part of the criteria for staff promotion.
- (c) *Incentives for individual staff members will be in-built in the universities' income generating activities.* This is expected to ensure the commitment of staff to the activities, while giving staff opportunities to earn additional income. The approach will be to involve all staff in a department and to ensure that the involvement is synchronised with the department's teaching and research responsibilities.

6.6.5 Quality Assurance

Systematic assessment and evaluation of educational institutions and their staff is a prerequisite for establishing accountability for outcomes and planning improvements. During the plan period, the following quality assurance measures will be developed:

- (a) *External Audit of the Quality of University Programmes.* CHE will organise a peer review of public universities every four years. The review will look into all aspects of university life including planning, management, relevance and quality of teaching and research programmes, and students' welfare. Emphasis will be placed on the extent to which universities are adhering to their missions. The review reports will be communicated to the universities and will be used as the basis for planning improvements.

- (b) ***Validation of Programmes and Courses by Peers in Non-Kenyan Universities*** Universities will be encouraged to plan and implement peer validation of curricula and assessment by moderators and external examiners from universities in Africa and elsewhere.
- (c) ***Building Academic Dialogue Between Staff and Students.*** Dialogue between staff and students helps to enhance the latter's learning and enriches the professional experience of staff. With the proposed rational students/staff norms (see 6.6.7 (b) below), it is expected that the tutorial system will be revived whereby once over a given period a member of staff engages in staff to student and student to student interaction with a manageable group of learners. A further measure of enhancing dialogue will be to institute a system whereby a member of staff periodically (e.g. at the end of a semester or term) receives the confidential assessment of the students s(he) has been teaching or supervising.
- (d) ***Developing Contractual Terms of Service.*** In line with practice elsewhere and, more important, as a way improving productivity among staff, contractual arrangements as opposed to permanent tenure will be introduced as the main approach in the employment of professional staff. CHE in collaboration with the universities, will develop the necessary detailed approaches, with the proviso that staff already in service will be given the option to continue serving on permanent terms or to accept contracts.

6.6.6 University Management

- (a) ***Enhancing Autonomy in Return for Accountability.*** Within an overall collaborative climate between GoK ministries and the university system, the university community (CHE, HELB, university councils and senates) will be made fully accountable for outcomes of the programmes entrusted to them under the laws through which they were established. Within the university, procedures and regulations governing roles and linkages between the council, vice-chancellor, senate, faculty, department and individual staff will be adhered to.
- (b) ***Developing Dialogue Between University Authorities and Students.*** Regular exchange of views between the university authorities and staff on one hand and on the other, the student community and individual students is important in that it (i) enhances learning in its widest sense, including acquisition of desirable social values and skills; and (ii) helps to diffuse tensions related to the students' welfare. During the plan period, dialogue channels will be developed or strengthened where they exist. Important channels include regular contact with representative students' associations, representation of students in ad-hoc and standing university organs, personal tutor / counsellor systems, and co-curricular activities in which students and staff work together.

- (c) **Training in Management.** In order to ensure efficiency in the use of resources, university managers will be trained in educational and financial management. As part of their planning, CHB and the universities will systematically and continuously identify training needs and organise suitable training openings including seminars, workshops and longer courses.
- (d) **Improving the Management Infrastructure.** Planning will address the need to create an efficient information system for university management, *inter alia* covering records, finance, physical facilities, and library services. A management information system based on modern information technology will be established to facilitate management within each university and networking between universities, CHB, HELB and MoE. As an important way of improving quality in teaching and research, attention will be given to establishing access to electronic databases within and outside Kenya.

6.6.7 Efficiency and Effectiveness in Financing

- (a) **Streamlining University Finances.** Building on current initiatives by GoK, CHE and the universities, as recommended in the 1995 report on *Future Development of University in Kenya* (Republic of Kenya, 1995b), the short-term and long-term status of university finances will be improved as follows:
- (i) Universities will take steps to clear the current backlog in the audit of their accounts, and thereafter ensure that audit reports are prepared within six months after the end of the financial year as required by regulations. A university failing to adhere to this audit regulation might be subject to delayed disbursement of part of its grant from GoK.
 - (ii) Through collaboration between all parties, the current debt owed by universities will be programmed for liquidation as soon as possible.
 - (iii) The provision and maintenance of physical facilities will receive careful attention as follows:
 - ◆ The stalled projects in universities will be either completed or, where it is uneconomical to complete them, abandoned and the materials sold. The facilities involved include laboratories, workshops, halls of residence and administrative offices. Priority will be given to those that are almost complete. New projects will be considered only in cases of extreme need.

- ◆ The repair and regular maintenance of physical facilities and teaching-learning and management technologies will be made an important part of university financial planning. Each university will be encouraged to adequately fund its repair and maintenance unit.
 - (iv) As a follow up to the provision of equipment and books through the UIP, universities will project and incorporate their needs for teaching-learning and management technologies into their budgetary planning.
 - (v) Staff over-establishment, particularly in the non-teaching staff area, will be addressed. GoK and the universities will work out ways of providing the funds needed for undertaking the necessary retrenchment.
 - (vi) Universities will adopt a long-term planning approach on the lines of the 3-year financial and 6-year development plans which the universities in collaboration with CHE have already prepared.
 - (vii) In order to facilitate the smooth running of public universities, GoK will take measures to ensure timely disbursement of grants.
- (b) *Use of Norms in Allocating of Resources.* In collaboration with the universities, CHE will work out a norms-based formula for funding public universities. The formula will among other things give due attention to research and post-graduate studies. It will include staff/student ratios as well as ratios for the use of facilities. Norms will help arrive at the ideal unit cost per programme and encourage departments to be accountable for output. Department will be developed as the basic unit in the preparation of estimates of expenditure and application of approved expenditures. Performance indicators will be developed as the basis of estimating the quality of departmental output.
- (c) *Separating Tuition from Accommodation and Catering.* Lasting solutions will be worked out through planned consultations involving representatives of students, CHE, HELB, university authorities, MoE and the Ministry of Finance. Among others, solutions will be sought along the following lines:
- (i) taking into account the peculiar circumstances of each university, explore the viability of requiring students to make their own accommodation and feeding arrangements independent of the university;
 - (ii) consider hiring out existing halls of residence and catering facilities to the private sector or income generating units of the universities, with the services being made available to students at

market value; if this approach is adopted, the contracts signed with the lessees should clearly specify the standards of hygiene to be maintained and charges on students, and the universities (through a committee in which students are represented) should keep the arrangement under regular scrutiny so that the interests of both students and lessees are carefully balanced;

- (iii) on similar lines as in (b), develop cafeterias to serve daytime meals to students living away from university campuses;
- (iv) ensure that HELB funding enables needy students to meet market costs of their accommodation and feeding; students could help meet their costs if they are encouraged to work part time in the accommodation and catering sphere;
- (v) sensitise the student body, households and communities to the need to separate tuition from accommodation and catering;
- (vi) whether living in privately rented accommodation or halls of residence, as a condition for admission and continued study, obtain a written and signed commitment that students will not hold the university responsible for shortcomings in accommodation and catering.

(d) *Developing Financing Mechanisms Through HELB.* The following measures will be taken:

- (i) The amounts to be awarded to students in way of loans, bursaries and scholarships will be constantly reviewed to keep them up-to-date with considerations of relevance of university courses and realities of household incomes.
- (ii) HELB will be adequately capitalised in order to enable it to effectively fund students in both public and private universities. The possibilities of acquiring external funding to enable the board to invest in income generating ventures will be explored.
- (iii) In order to make the administration of funding to students and recovery of loans efficient and effective, HELB will actively explore approaches such as:
 - ◆ involving commercial banks; and
 - ◆ linking loan recovery with the income tax system.
- (iv) The approaches to assessing students' funding needs will be constantly reviewed so as to make them more responsive to equity. As a matter of urgency, consideration will be given to the

creation of a database which traces need for educational funding outside the household from primary through secondary school to post-secondary education (see Chapters 4 and 5 on primary and secondary education respectively).

(e) ***Development of Non-public Sources of Revenue.*** Universities will be encouraged to develop non-public sources of their revenues including income generating activities (such as returns from research and consultancies with industry and employers, services to the community, agro-based production, manufacturing for the market including making equipment for use in schools, hiring out university facilities); grants and donations from NGOs and well-wishers; and funding from alumni associations. Consideration will be given to the issues of investment capital and management of the ventures as follows:

- (i) ***Investment Capital.*** Against a university's detailed and viable plan, GoK will endeavour to provide a grant in way of seed money for the development of income generating activities. In addition, universities will endeavour to raise investment capital from other sources including loans from banks and the cooperative movement.
- (ii) ***Management of Resource Mobilisation Ventures.*** In order to ensure efficiency and accountability, each university council will set up a special unit which, on commercial basis, will coordinate and manage income generating activities and mobilisation from other non-public sources.

CHAPTER 7

VOCATIONAL AND TECHNICAL EDUCATION AND TRAINING

7.1 INTRODUCTION

Currently, certificated vocational and technical (VOC-TEC) education and training (E&T) in a variety of trades and professions is offered at four post-school levels: (i) *artisan* - in YPs and on-the-job (formal sector and *jua kali* apprenticeships) - certificated by KNEC and DIT respectively; (ii) *craft* - in TTIs and ITs - certificated by KNEC; (iii) *technician* - in some TTIs and ITs and all NPs - with an ordinary diploma awarded by KNEC; and (iv) *technologist* - higher diploma in NPs awarded by KNEC, and a degree awarded by a university. Most on-the-job trainees who take the DIT's tests do not proceed beyond the qualification designated Trade Test Grade 1. Using one of at least four alternative routes, theoretically other trainees can progress from primary school to technologist at the university level (Figure 7i).

Figure 7i. ALTERNATIVE ROUTES TO TECHNOLOGIST LEVEL

Route a: PRIMARY SCH → SECONDARY SCH → UNIVERSITY TECHNOLOGIST

Route b: PRIMARY SCH → SECONDARY SCH → DIPLOMA → UNIVERSITY TECHNOLOGIST

Route c: PRIMARY SCH → SECONDARY SCH → CRAFT CERTIFICATE → DIPLOMA → UNIVERSITY TECHNOLOGIST

Route d: PRIMARY SCH → ARTISAN → CRAFT CERTIFICATE → DIPLOMA → UNIVERSITY TECHNOLOGIST

Abbreviation: SCH = SCHOOL

The foregoing partially illustrates considerable variety and complexity in the total VOC-TEC training sphere. This variety and complexity needs to be systematically addressed so that efficiency and effectiveness in the development of the labour force are raised. Five pertinent issues are highlighted below.

First, the training illustrated in Figure 7i undertaken in MoE and MRTTT institutions, takes the form of general training for the open labour market. Under the MPBT there will be greater coordination between general training and training for specialised jobs in the public sector undertaken by other GoK ministries and institutions. Further, coordination should take into account in-house training by private sector employers and private institutions. Coordination needs to address the likely deleterious effects on efficiency and effectiveness of (i) different qualifications for entry into courses - some TTIs select trainees from both primary and secondary schools, and (ii) uncertainty of equivalence of certificates issued by different examining bodies for instance, KNEC's artisan certificate for YP trainees

v. DIT's trade test certificates; KNEC's craft certificate for TII/IT trainees v. DIT's trade test grade 1 certificate; KNEC's accounting diploma v. KASNEB's accounting certificate v. business studies certificates and diplomas issued by private commercial colleges.

Second, the role of YPs needs to be clearly defined and strengthened. YPs are community institutions established partly in response to restricted general education opportunities at the secondary level. Funding and management support for YPs is currently unsatisfactory (Republic of Kenya, 1997). The MPET proposes that, with financing and management being suitably integrated into the mainstream, YPs should be geared to increasing opportunities at the second level through courses which pay some attention to general education, but concentrate on VOC-TEC skills which anticipate salaried employment in the local community, self-employment, and further formal or on-the-job training.

Third, as indicated in Chapter 1, general education and training in job-specific skills are related. The MPET takes into account this factor in proposing improvements in training. VOC-TEC training (both formal and on-the-job) builds on the learning acquired through general education. There is evidence that the variables that influence training most include the degree of mastery of (i) linguistic and mathematical communication; (ii) reasoning, problem-solving and innovative skills; and (iii) knowledge and appreciation of the interrelationships between science, technology and socioeconomic factors. Thus, it is intended that VOC-TEC training curricula should include elements of general education.

Fourth, the MPET recognises that in market economy, VOC-TEC training will need to be demand-driven, and thus responsive to available openings in salaried careers and self-employment.

Fifth, in a liberalised economy in which entrepreneurs take centre stage in the production of goods and services, an appropriate balance between state and non-state provision of VOC-TEC training will need to be developed and maintained. The state will continue to play a key role particularly with regard to (i) co-ordination of overall training policy; (ii) training for self-employment and a potential labour market; and (iii) attention to equity as it affects gender, the disabled and the needy. Partly to ensure that training becomes more responsive to the requirements of employers, and partly to raise the level of funding for the sub-sector, based on consultations between all stakeholders, a system will be developed to increase the participation of employers in the provision and delivery of training.

7.2 OBJECTIVES

Bearing in mind the foregoing, the objectives of VOC-TEC education will be:

- 7.2.1 To develop the scientific, technological, practical and attitudinal skills needed for specific jobs in various trades, vocations and professions;

- 7.2.2 To inculcate the vocational and entrepreneurial skills necessary for self-employment;
- 7.2.3 To integrate relevant general education into training curricula;
- 7.2.4 To reduce inequity in society through increased training opportunities for females, the disabled, and learners from poor households;
- 7.2.5 To provide avenues for re-training and further training and education of graduates of VOC-TEC institutions;
- 7.2.6 To raise the efficiency and effectiveness of the training system by making it more relevant to current and projected openings in the economy through devolution of management and financing responsibility to LGAs and employers.
- 7.2.7 To collaborate with other sectors and sub-sectors in working for national economic and social development;

7.3 POLICIES

In support of the effort to industrialise the economy, the VOC-TEC sub-sector will be guided by a policy framework whose broad aim will be to make training efficient, effective and available to an increasing number of Kenyans. The intention will be to meet the needs of a growing labour force and development of the human resource base. Specifically, the following four policies will be adopted:

- 7.3.1 Consistent with relevance to the employment market including potential for self-employment, and taking into account constraints on public and private resources, VOC-TEC education and training will be expanded. Special attention will be given to increasing opportunities for females, the disabled and learners from poor families.
- 7.3.2 The relevance and quality of E&T will be continuously improved and maintained.
- 7.3.3 The management and coordination of training will be strengthened and improved in order to ensure efficient and effective allocation and utilisation of resources and to establish clear accountability for outcomes.

7.4 OVERVIEW OF THE CURRENT ARTISAN TRAINING STATUS

A salient feature of the current artisan training system is variation in demand for YP courses on one hand and on the other, *jua kali* apprenticeship. While most YPs are under-enrolled, demand for *jua kali* places is expanding. A combination of

factors account for this contrast. First, YP training is more expensive than acquisition of skills through *jua kali* apprenticeship, a factor underscored by the observation that, unlike the YP student who has to pay fees, an apprentice earns an income - albeit small - as s(he) trains. Second, YPs continue to be seen by the community as largely a step towards further education rather than (as perceived by *jua kali* trainees) an opening to opportunity in the economy. Progression from YPs to the economy (comparable to firmly established routes such as SCHOOL EDUCATION → UNIVERSITY → FORMAL SECTOR, or *JUA KALI* TRAINING → INFORMAL SECTOR) has not been defined. Partly as a consequence, management and professional development YPs suffer from benign neglect by the state and communities. Third, and closely related to the foregoing, as opposed to the cloistered experience of the YP trainee which has the effect of inhibiting his or her vision of the world of work, the more informal training context of the *jua kali* apprentice - coupled with the contacts s(he) makes - builds a natural bridge to the economy.

Apart from the shortcomings in external efficiency discussed above, YPs exhibit a number of serious internal problems, among which are (i) inadequacy of physical facilities; instructional materials, and equipment; (ii) under-qualified and poorly motivated staff; and (iii) a weak managerial and professional support infrastructure.

7.5 STRATEGIES IN DEVELOPING ARTISAN TRAINING

The following three complementary sets of strategies will be adopted in order to improve artisan training:

7.5.1 To increase access and participation:

- (a) raise enrolments in existing YPs to the optimal level;
- (b) reduce the dropout rate in YPs;
- (c) relate establishment of new YPs to identified economic needs in communities and to available resources;
- (d) set specific targets and develop training opportunities for females, the disabled and youth from poor families;
- (e) encourage increased participation through *jua kali* and other private sector apprenticeship.

7.5.2 To Raise relevance and quality:

- (a) improve the curricula of YPs;
- (b) improve the quality and efficiency of assessment and certification;

- (c) improve the trade skills and pedagogical knowledge of YP instructors;
- (d) improve the quality of YP management;
- (e) develop an effective monitoring and guidance system for YPs.

7.5.3 To improve resource mobilisation, allocation and accountability:

- (a) create an effective decentralised management framework which facilitates mobilisation of resources and accountability in their utilisation;
- (b) increase the efficiency of resource utilisation by linking provision of funds to defined programmes, activities and priorities.

7.6 PROGRAMMES AND ACTIVITIES IN ARTISAN TRAINING

In pursuit of the foregoing sets of strategies, activities - the combined effect of which is expected to be improved efficiency and effectiveness in the delivery of artisan E&T - will be carried out under the following interrelated programmes (i) study of the YP system, (ii) legal and management infrastructure, (iii) development of curriculum and assessment, (iv) development of YP staff, and (v) quality assurance and formative monitoring.

7.6.1 Study of the Youth Polytechnic System

Although a number of research studies on the YP system have been carried and the sphere receives some attention in public policy and planning documents, the issue of how, through a combination of public and non-public resources, the sphere could be improved and made an important and growing part of E&T at the second level has not been systematically addressed. In way of building the systematic information necessary for the implementation of the MPET's proposals on an enhanced role for YPs, a comprehensive study will be carried out in early 1998. The study will take the following two approaches.

- (a) *Tracing Former YP Graduates.* With the objective of making recommendations on improving the outcome of YP training, answers to questions such as the following, will be sought: *What proportions of former trainees are (i) in formal employment, (ii) in self-employment, and (iii) unemployed? What proportion has found openings in the immediate community? Is the training received relevant to the type of economic activity former trainees are involved in? What proportion of the graduates have received further training and if what type of programmes? What assistance did graduates receive in setting up self-employment? What problems have graduates experienced? What potential exists in various communities that could have been exploited by graduates (e.g. contracts to construct primary school buildings and/or make furniture, manufacturing goods for sell to local firms/community,*

supply of services - such as tailoring, maintenance of transport equipment, catering, book-keeping, secretarial work etc.)?

- (b) A survey of existing YPs to establish
- personal characteristics of trainees, e.g. age, sex, and socioeconomic status of parents;
 - pre-entry qualifications of current trainees;
 - trades in which courses are offered;
 - data on formal assessment and certification;
 - quantity and quality of physical facilities and instructional materials and equipment;
 - characteristics of heads, instructors and support staff (in particular qualifications in relevant skills and pedagogy, and terms and conditions of service);
 - sources and application of funds (proportions of funds from MRTTT, LGA, household, community, NGOs, and income-generating activities);
 - financial management including audit;
 - approaches to management (in particular constitution of the management committee or BoG, involvement of parents and community, and role played by MRTTT).

7.6.2 Legal and Management Infrastructure

- (a) *YPs to Become Public Institutions.* During the plan period, YPs will be brought under the ambit of the state as part of the public E&T system. *Inter alia*, this will entail (i) making all YPs eligible for grants from public funds; and (ii) synchronising YP enrolments with selection for secondary education and other public artisan training programmes.
- (b) *Decentralised Management.* As part of the E&T sector, YPs will be governed under the provisions of the proposed Education and Training Act (see Chapter 10 on sector management). As in the case of schools, the professional and financial management of YPs will be devolved to LGAs. Under each LGA a District Education and Training Board will have responsibility for YPs. The DETB will establish a technical training section whose responsibilities will include management of YPs.
- (c) *Institutional Management.* Each YP will be managed by a principal with the participation and guidance of a BoG. Each YP will be encouraged to establish a PTA, but the BoG will be the institution's main management body. The membership and functions of the proposed BoG are stated in Appendix IV.
- (d) *Improving Resource Mobilisation, Allocation and Accountability.* Devolution of responsibility is expected to lead to increased efficiency in the mobilisation and application of resources. The streamlining and

strengthening of LGA revenue should result in increased allocation of public resources to YPs, thus augmenting resources from communities and other non-public sources and revenue raised by the institutions through income-generating activities. Central government grants will be geared to funding the professional infrastructure (e.g. research, national planning, teacher training, curriculum development, assessment and certification, and formative monitoring), and providing incentives for to encourage development at the local level. Using guidelines from MRTTT and working together with BoGs and communities, LGAs will undertake careful and continuous planning in order to increase access and participation, and to raise the quality of YP training. This will entail estimation of development and recurrent needs, including staff salaries, and raising the necessary funds. Expansion of existing YPs and establishment of new ones will only be authorised against detailed planning for the necessary physical facilities and recurrent expenditures.

All YPs will be eligible to a central government grant (which will be increased as the economy grows), but disbursement will only be made to those YPs which demonstrate efficiency and effectiveness through (i) a viable development plan with clear objectives (including targets), implementation strategies and activities over a period of not less than three years; (ii) continued maintenance of enrolment levels, with a course completion rate of more than 90%; (iii) evidence of good management, such as trial balances regularly produced at the end of every month and audited accounts made available three months after the end of the financial year; and (iv) evidence that 80% of graduates translate into economic openings relevant to their training within six months of completing the course.

A proportion of central government assistance to YPs will be earmarked for encouraging income generation. A YP whose audited accounts show that income-generating activities raised more revenue than in the previous year will be eligible to a bonus MRTTT grant. A suitable formula for allocating such bonus grants will be developed.

- (e) *Alleviating Inequity.* Working together with communities, LGAs, NGOs and the private sector, GoK will encourage the development of (i) a bursary fund for encouraging participation in artisan training by females, the disabled and trainees from poor households; and (ii) a revolving fund to enable graduates to invest in self-employment.

7.6.3 Development of Curriculum and Assessment

The guiding principle behind the development of YP curricula will be to establish a close relationship between courses and socioeconomic activities in local communities, and to incorporate income-generation and practical management into the learning process. Towards this end the following steps will be taken:

- (a) **Enhancing Relevance.** Curricula will be reviewed to improve on the current tendency for YPs to duplicate courses in a small number of trades, often unrelated to potential in the local economy or resulting in over-supply of graduates. Courses will be geared to production of graduates who are inclined to investing their skills in meeting local needs in households, community services (such as education and health), retailing and vending, and local maintenance and manufacturing.
- (b) **Curriculum Flexibility.** Two measures will be taken. First, in addition to courses that take up to two or more years, shorter work-orientated courses will be developed. This should have the twin effect of increasing access and raising the external efficiency of the programme. Second, to enable trainees attend to production activities and assist in household chores and thus reduce the rate of dropping out, flexibility will be introduced into the calendar and timetable of YPs. This should also attract *jua kali* artisans wishing to use the YPs for skill up-grading.
- (c) **Income Generation.** The idea of gearing training to production will be pursued through development of income-generation as central approach in the programme. The revenue so raised is expected to be an important part of the YPs' budgets, and a proportion of it should assist trainees to pay for their training.
- (d) **Trainee participation in the administration of YPs** will be developed as a practical approach in inculcating entrepreneurial skills. Areas in which such participation will be sought include (i) production and marketing goods sold to the community; and (ii) management tasks such as maintenance of the YP's books of financial accounts and stores ledgers.
- (e) **Expanding Trainees' Knowledge Base.** Although the emphasis in YP training will be on training in specific trade skills which have direct relevance in the community, a general education component in language, math, and natural and social sciences will be incorporated in the curriculum. Among other things, this general education component should provide a theoretical foundation for training within the YP and enhance trainees' chances for further education and training, e.g. in TTIs and ITs.
- (f) **Assessment and certification of artisan trainees will be improved.** While not ignoring the measurement of acquisition of essential theoretical knowledge, emphasis will be placed on proof that trainees have acquired the key production and entrepreneurial skills necessary for a given trade.