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Principles and general objectives of education

Education is a fundamental right which must be provided to every Kenyan, according to the following principles: political equality; national unity; social justice and human dignity; freedom of religion and conscience; freedom from ignorance and disease; equal opportunities for all citizens, irrespective of race, religion, sex or colour; equitable distribution of the national income; and the promotion and preservation of the cultural heritage.

The general goal is to prepare and equip citizens to function effectively in their environment and to be useful members of society. Therefore education should:

- Foster nationalism, patriotism and promote national unity.
- Promote the social economic, technological and industrial needs for national development: education should prepare the youth of the country to play an effective and productive role in the life of the nation: education must prepare children for the changes in attitudes and relationships which are necessary for the smooth process of a rapidly developing modern economy; it should produce citizens with skills, knowledge, expertise and personal qualities that are required to support a growing economy; it should provide the learners with the necessary skills and attitudes for industrial development.
- Promote individual development and self-fulfilment: education should provide opportunities for the fullest development of individual talents and personality; it should help children to develop their potential interests and abilities.
- Promote sound moral and religious values: education should provide for the development of knowledge, skills and attitudes that will enhance acquisition of sound moral values and help children to grow up into self-disciplined, self-reliant and integrated citizens.
- Promote social equality and responsibility: education should promote social equality and foster a sense of social responsibility within an education system which provides equal educational opportunities for all; it should give all children varied and challenging opportunities for collective activities and corporate social service irrespective of gender, ability or geographical environment.
- Promote respect for and development of Kenya's rich and varied cultures: education should instil in the youth of Kenya an understanding of past and present cultures and their valid place in contemporary society; the children should be able to blend the best of traditional values with the changed requirements that must follow rapid development in order to build a stable and modern society.
- Promote international consciousness and foster positive attitudes towards other nations: education should lead the youth of the country to accept

membership in this international community with all the obligations and responsibilities, rights and benefits that this membership entails.

- Promote positive attitudes towards good health and environmental protection: education should inculcate in the youth the value of good health in order to avoid indulging in activities that will lead to physical or mental ill health; it should foster positive attitudes towards environmental development and conservation; it should lead the youth to appreciate the need for a healthy environment. (Kenya Country Team, 2008).

The vision for the education sector for 2030 is "to have globally competitive quality education, training and research for sustainable development", while the mission is "to provide, promote, and coordinate the provision of quality education, training and research for the empowerment of individuals to become responsible and competent citizens who value education as a lifelong process". To achieve this vision, four strategic areas, namely, access, quality, equity, science, technology and innovation have been identified for support based on their impacts on the economic, social and political pillars. (Government of Kenya, 2007).

Laws and other basic regulations concerning education

The **Education Act** of 1968, revised in 1980, assigned the responsibility for education to the Ministry of Education and instituted various organs for the organization and management of education at all levels.

The **Board of Adult Education Act** of 1966 established a Board with the purpose of coordinating adult education activities.

The **Teachers Service Commission Act** of 1967 (Cap 212 of the Laws of Kenya) established the Commission to provide services to the teachers on issues related to registration, recruitment, deployment, remuneration, promotion, discipline, and maintenance of teaching standards.

The **National Council for Science and Technology Act** of 1978 created a body to co-ordinate research in science and technology and to advise the government on relevant policy matters.

The **National Examinations Council Act** of 1980 established a body to administer national examinations.

The **Literature Bureau Act** of 1980 established a Bureau to print and publish books and other educational materials.

The **Universities Act** of 1985 created the Commission for Higher Education that regulates university education in Kenya.

The **Sessional Paper No. 6** of 1988 mapped out policy changes on education and work force training for the last decade of the 20th century and beyond. The **Sessional Paper No. 1** of 2005 stipulates policies and strategies the government will undertake and implement in order to address the challenges facing education and

training. The **Sessional Paper No. 5** of 2005 makes provision for gender equality and development policy to promote equality within all sectors of national development including education.

The **Higher Education Loans Board Act No. 3** of 1995 established the Board to administer the Student Loans Scheme and a Revolving Fund from which funds can be drawn to lend out to needy students pursuing higher education.

The **Children's Act No. 8** enacted by the Parliament in 2001 and effective from 1 April 2002, requires the government to undertake all the necessary steps to make available free basic education to every child, which shall be compulsory in accordance with the Convention on the Rights of the Child. The Act also provides for the establishment of a National Council for Children's Services.

Administration and management of the education system

The provision of education at all levels is a partnership between the government, communities, the private sector and civil society (religious organization and non-governmental organizations). The formal education system is managed by the **Ministry of Education** (previously**,** the Ministry of Education, Science and Technology) through a network that extends from the headquarters to the provinces (8), districts (10), divisions and zones. The Minister carries the political portfolio for education while the Permanent Secretary is the executive head and the accounting officer, assisted by the Director of Education, the Chief Inspector of Schools and a team of other senior officers.

In 2008 the organizational structure of the Ministry included six directorates, e.g.: Basic Education, Higher Education, Technical Education, Quality Assurance and Standards, Policy and Planning and Research Development. The Directorate of Basic Education was in charge of early childhood development and education (ECDE), primary education, special needs education, primary teacher education and non-formal education. The Directorate of Quality Assurance and Standards was in charge of the monitoring of curriculum delivery, implementation and evaluation. In also monitored teacher-training programmes and organized in-service training programmes for serving teachers and education managers in collaboration with other agencies of the Ministries.

The Directorate of Higher Education was in charge of secondary school education, tertiary colleges and universities. It also coordinated pre-service secondary school teacher training. The Directorate of Technical Education was in charge of Technical, Industrial, Vocational and Entrepreneurship Training policy, TIVET curriculum development, registration and supervision of TIVET institutions (including technical teachers college, National Polytechnic University, colleges, national polytechnics, technical training institutes, institutes of technology and private TIVET institutions). Most TIVET institutions are under the Ministry of Science and Technology (now the Ministry of Higher Education, Science and Technology), while certain skills training institutions are under other ministries. For example, youth polytechnics are under the Ministry of Youth Affairs.

In May 2008, the responsibility for technical, tertiary and higher education was transferred to the **Ministry of Higher Education, Science and Technology**. The Ministry has four directorates, e.g.: Research Management and Development; Higher Education; Technical Education; and Technical Accreditation and Quality Assurance.

There is a **Provincial Director of Education** for each of the eight administrative provinces, while **District Education Officers** take charge of educational administration at this level, supervising the division and zone officers. Head teachers are appointed to be in charge of the day-to-day administration of their schools, assisted by **School Management Committees** (primary schools), **Centre Management Committees** (adult basic education centres) and **Boards of Governors** (in the case of secondary schools and tertiary colleges). Since the late 1970s, Parent-Teacher Associations have evolved to play a role in the management of educational institutions, assisting particularly by raising funds to construct physical facilities and to purchase needed equipment and materials.

There are also various semiautonomous government agencies providing support services. The **Kenya Institute of Education** (KIE) is the national curriculum development and educational research centre charged with the responsibility of conducting research and developing curriculum and curriculum support materials for all levels of education, except for the universities. The Institute also develops education programmes for schools broadcast and evaluates curriculum support materials for use in schools as well as teacher orientation. Together with the directorate of Quality Assurance and Standards within the Ministry of Education and the Kenya National Examinations Council, the Institute coordinates the evaluation of textbooks and other instructional materials for school use.

The **Kenya National Examinations Council** (KNEC) administers national examinations except those under universities. The Council's main strategic objective is to strengthen the national assessment system for effective examination management. KNEC also participates in curriculum evaluation and tests draft curricula.

The **Teachers Service Commission** is the employer of teachers for primary and secondary education, teacher training colleges, middle-level colleges and institutes. It ensures the maintenance of professional ethics and discipline in accordance with the established code of regulations.

The **Inspectorate of Education** ensures the maintenance of acceptable educational standards through inspection and counselling of teachers on proper teaching methods. It organizes in-service training for teachers to keep them updated with new methodologies. The Chief Inspector is the Chairperson of the Academic Board of the KIE, and it is this Board that approves all curricula developed by the Institute.

The **Kenya Education Staff Institute**, based at Kenyatta University but operated by the Ministry of Education, provides management training through workshops and seminars aimed at improving performance and efficiency of educational personnel at various levels. Its training programme includes education

management, financial management for education, legal matters affecting education, personnel management, guidance and counselling.

The **Kenya Institute of Special Education** (KISE) trains teachers on special education at the diploma level using distance learning mode and residential learning mode.

The **Jomo Kenyatta Foundation** and the **Kenya Literature Bureau** are two autonomous publishing houses producing textbooks and other educational materials developed by KIE. They also publish works by individual authors for both specialized and general readership.

Pre-primary education is provided by local authorities, non-governmental organizations (NGOs) and private entrepreneurs (for which the services are paid). The **National Centre for Early Childhood Education** (NACECE), which is based at the Kenya Institute of Education, co-ordinates and facilitates the development and distribution of localized curriculum and support materials, in collaboration with the District Centres for Early Childhood Education. It also co-ordinates research in all aspects of early childhood education and development.

The universities are parastatal organizations, each of them established by an Act of Parliament and administered by its own internal structures under the umbrella of a University Council. The Head of State is the Chancellor of all the public universities (currently five), and, in that capacity, he has appointed a Vice-Chancellor for each one. The **Commission for Higher Education** is responsible for the programming, planning, budgeting and funding of public universities, as well as for the accreditation of private universities and post-secondary institutions.

The **Ministry of Gender, Children and Social Development** (formerly the Ministry of Gender, Sports, Culture and Social Services), through the Department of Adult Education (established in 1979), promotes adult education and literacy programmes. The **Board of Adult Education** is the statutory body mandated to coordinate, advise and regulate the promotion of adult and continuing education. One of its key responsibilities is the registration of all adult learning and education providers including their programme activities, areas of operation and target population. The Board also has the function of cocoordinating the activities of the providers, monitoring and evaluation of provision as well as ensuring quality control.

The **Ministry of Health**, through the Medical Training Centre, provides training for paramedical personnel, while the **Ministry of Agriculture** trains agricultural extension workers. The **Ministry of Youth Affairs and Sports**, established in 2005, implements youth programmes. One of the Ministry's core functions is to rehabilitate, revitalize and refurbish the youth polytechnics with a view to empowering the youths with market driven technical and entrepreneurship skills. Youth polytechnics are managed by local communities, non-governmental organizations and religious bodies.

Structure and organization of the education system

The national education system has evolved over time, with major changes having been instituted in the 1980s. In 1984, the '7–4–2–3' structure was replaced with the '8–4–4' structure and system, which introduced a broad-based curriculum at every level. The 8–4–4 system was intended to make education more relevant to the world of work and thus produce skilled and high-level work force to meet the demands of the economy.

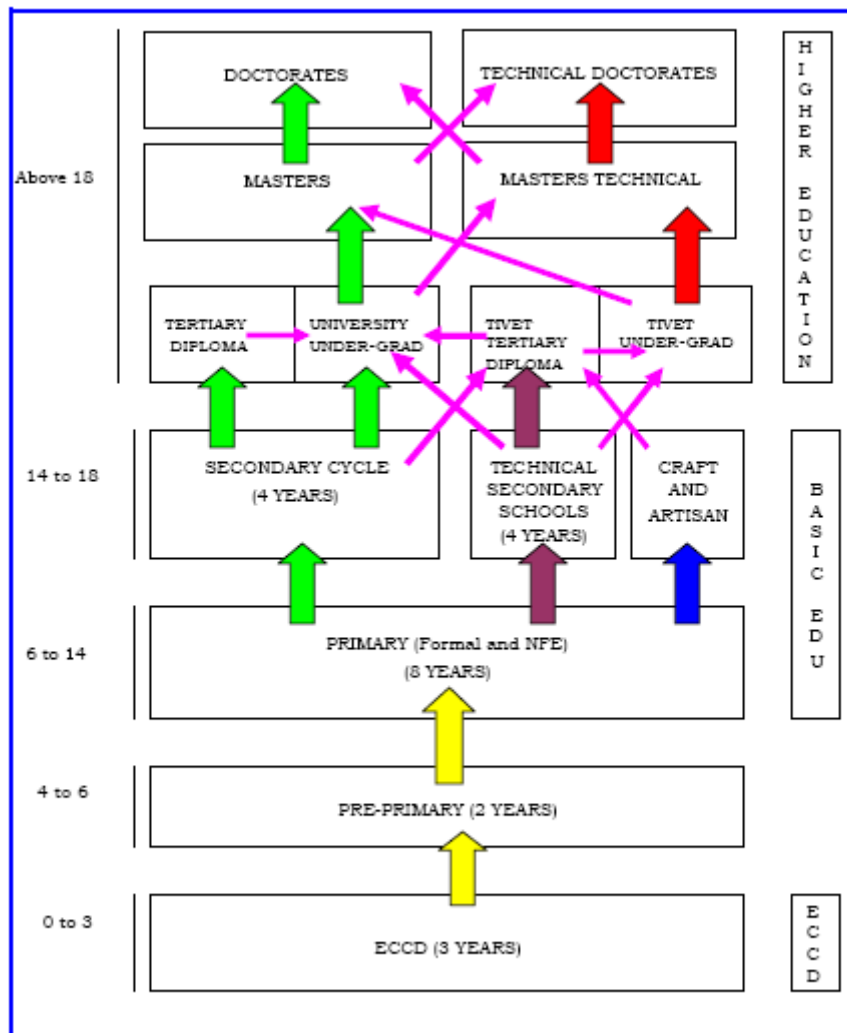**Kenya: structure of the education system**
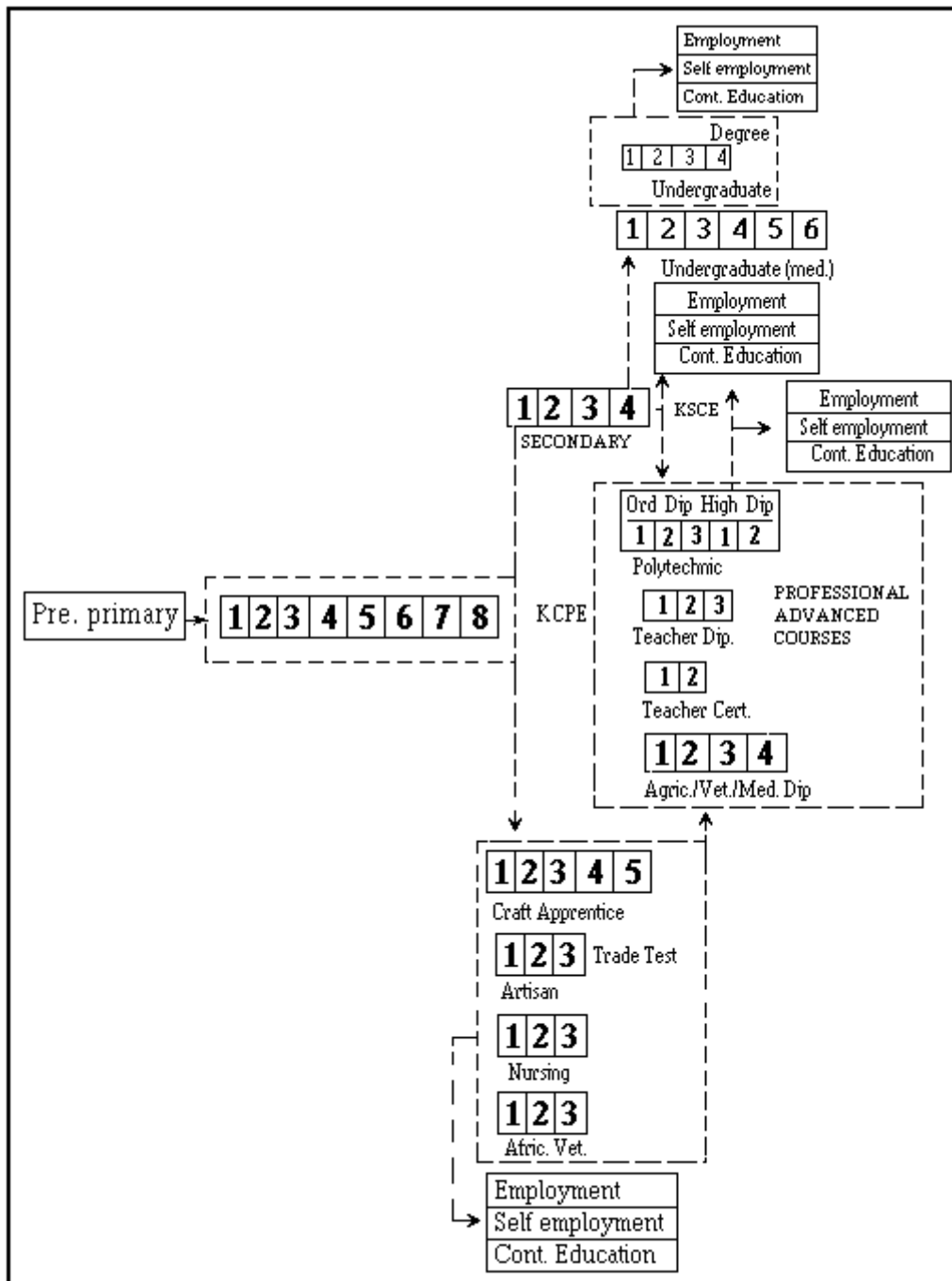
The figure below shows the envisaged structure and organization of the education and training sector as articulated in the Sessional Paper No. 1 of 2005.

Kenya: proposed new structure of the education system

Figure 8: Structure and Organization of Education and Training

From the primary school cycle to higher levels, this structure is intended to offer learners equal opportunities to advance to the highest level of learning either through the academic or Technical, Industrial, Vocational and Entrepreneurship Training (TIVET) channels. The proposed structure also provides opportunities for entry and re-entry into either channel. An additional feature is that the education and training system is structured into basic and higher education and training. In the long term, basic education and training is proposed to be 14 years, comprising of pre-primary (2 years), primary/non-formal education (8 years), and secondary education and TIVET (4 years). Under this proposal, higher education will consist of undergraduate and postgraduate (masters and doctoral) programmes, as well as TIVET, diploma, undergraduate and postgraduate programmes.

Pre-school education

Early childhood development and education (ECDE) is provided for children 4–5 years old. The provision of ECDE is a partnership involving various stakeholders including households, NGOs, communities and the government Attendance is not compulsory. Children enter primary education at age 6.

Primary education

Primary education is the first cycle of the national 8–4–4 system of education, introduced in 1986. It lasts eight years and caters for 6–13 year-old children. The course is divided into lower (Standards 1-3), middle (Standards 4 and 5) and upper primary (Standards 6-8). At the end of the cycle (normally at age 14), pupils sit the highly competitive national Kenya Certificate of Primary Education examination (KCPE).

Secondary education

Secondary education lasts four years and caters for 14–17 year-old olds. It is organized into two stages of two years' duration each. At the end of the fourth year of secondary school, students sit an examination administered by the Kenya National Examinations Council leading to the Kenya Certificate of Secondary Education (KCSE). This examination is used for selection of students for universities courses or for training in other post-secondary institutions. In addition to the academic certificate, the school awards each student a leaving certificate reflecting observed abilities and character development. Primary school leavers can enrol in youth polytechnics preparing for the Government Trade Tests level 1 to 3. A large proportion of post-school education and training is offered by private training institutions, potential employers through sponsorship by the private sector, or by the respective government ministries and departments.

Higher education

Tertiary and higher education covers university education, as well as post-secondary education and training provided by national polytechnics, tertiary colleges (teacher training colleges and medical training colleges), and other tertiary-level TIVET institutions (technical training institutes, institutes of technology, and technical and professional colleges). National polytechnics offer certificate, diploma and higher diploma courses in various fields of technical training. Tertiary colleges offer two-year certificate and three-year diploma courses. Technical training institutes offer training at both craft and diploma level. Institutes of technology offer courses lasting between two and four years in a range of technical fields such as construction, engineering, business studies, textiles and agriculture. Public universities use to have a number of institutes, schools and units that supplement their academic faculties and disciplines; some of them also have constituent colleges. Bachelor's degree programmes normally last four years (five years in the case of civil engineering, medicine and surgery). Master's degree programmes take a minimum of two years to complete. Programmes leading to a postgraduate diploma have one to two years' duration. Doctoral degree programmes normally last three years.

The school year consists of thirty-nine weeks, divided into three terms of thirteen weeks each.

The educational process

The Ministry of Education is responsible for formulating the curriculum and overseeing its implementation. The Kenya Institute of Education (KIE) develops the curricular support materials, and the Kenya National Examination Council is responsible for student assessment and curriculum evaluation. Furthermore, various stakeholders in education, such as teachers, religious organizations, learners, and parents, may voice their concern on the appropriateness of the curriculum.

KIE was formally established in 1968, and its legal status was defined in the 1976 KIE Order. Over the years, the role of the Institute has expanded to respond to emerging needs including: the development and implementation of non-formal education curricula; upgrading of skills for personnel in the education and other sectors of economy; printing and publishing of educational and other materials; development and implementation of specialized professional training programmes. The Institute is comprised of six divisions. The Division of Basic Education is in charge of the development of curricula and curriculum support materials for all levels of education in Kenya, except the universities. The Division is made up of eight sections which are responsible for various levels of education, e.g. early childhood development; primary education; secondary education; special needs education; non-formal education; adult and continuing education; teacher education; and cross-cutting issues. The secondary education section has the principle mandate to develop curricula and curricula support materials for the 30 subjects currently offered at the secondary schools. The teacher education section has developed a revised curriculum for primary teacher training colleges which was implemented in 2004, and for diploma courses implemented in 2008. The cross-cutting issues section has developed curricula and curriculum support materials on the emerging and contemporary issues facing the society; the current areas of concern covered are: HIV and AIDS education, gender issues, drug and substance abuse prevention, child labour prevention, life skills education, guidance and counseling, and living values education.

Many factors play a role in motivating curriculum reforms. Some of these include: whether the curriculum objectives are clear, pertinent to the needs of society, achievable and realistic; whether the curriculum is overloaded; the scope and depth of the existing curriculum; areas of unnecessary overlap within and across subjects; availability, adequacy and appropriateness of the resources (physical and human) for effective curriculum implementation; emerging issues such as the HIV & AIDS pandemic, gender imbalance, environmental issues, drug prevention education, guidance and counselling.

Policy-makers take into account reports from the National Education Commission, popular opinion, and research results before making a decision. Once the decisions have been translated into policy, the KIE develops the curriculum accordingly.

Three bodies at the KIE develop the curriculum: the subject panel, the course panel and the academic board. The subject panels are responsible for the translation of the national goals of education into educational programmes. The course panel develops courses, and is composed of experienced teachers, subject inspectors, college tutors, examination secretaries, representatives from Kenya National Union of Teachers and religious organizations. The academic board reviews the existing curricula. In some cases, panel members may need to consult with other members from a related subject where there is content overlap.

In January 1985, the government launched the 8–4–4 curriculum, which emphasized vocational subjects. This system sought to make education more responsive to the needs of the nation and the learners, and to prepare the youth for self-employment, training in life skills and further education.

Recent developments related to the curriculum have included the following: i) a wide range of support materials for use at the early childhood development and education (ECDE) level; ii) the development of an integrated curriculum which considers the holistic approach in the provision of services; iii) an Islamic Integrated Education Programme curriculum; iv) a bridge curriculum to relate ECDE to the lower primary curriculum; v) a reduction in the number of subjects at the secondary school level and a reduction in content at the primary school level; vi) increased relevance for the disadvantaged groups; vii) new content for gender sensitivity in teacher education programmes; ix) a newly developed curriculum and support materials for non-formal education; x) curriculum materials on HIV and AIDS; and xi) textbook provision in the core subjects. Previously, learning activities were centred on the teacher but now the focus is on learner participation with the teacher as a guide. These methods include story telling, news telling, role-play, discussion demonstration, project work/individual assignments among others.

From January 2003, a new curriculum was implemented with the aim of reducing the workload for both teachers and pupils, as well as in conjunction with the introduction of the free primary education policy. The curriculum reduced the numbers of examinable subjects from 5–7 at primary schools and 10 to 8 at the secondary school level. Between 2002 and 2005 vocational subjects were removed from regular primary and secondary schools following the review of the curricula. The Sessional Paper No. 1 of 2005 recommended that technical subjects, which had been dropped from the secondary school education curriculum after the Needs Assessment Report of 1999, be re-introduced.

The primary school education curriculum has been changed several times since independence. After the 2002 revision it was implemented in phases from 2003 to 2006. The 2002 curriculum addressed several concerns, which included curriculum overload and overlaps within and across subjects; emerging issues such as HIV and AIDS, child labour, environmental degradation and gender issues among others. The revision of the curriculum entailed refocusing the goals of education, the primary education level objectives, and the subjects' general and specific objectives. Since the implementation of the revised curriculum in 2003, KIE has monitored each phase of implementation and, based on the monitoring reports, it has revised the social studies syllabus and introduced life skills education in the curriculum. In the case of

secondary education, KIE has revised the business studies syllabus and introduced life skills education.

A recent evaluation suggests that the objectives of the primary school curriculum have not been fully achieved as envisaged in the 2002 rationalization and revision process. The evaluation revealed that learners have attained skills in literacy, numeracy and communication, which represent the cognitive domain of learning. However, learners have not attained skills in areas such as creativity, social responsibility, appreciation and respect for the dignity of work. The achievement of this objective has been constrained by non-coverage of syllabuses in some subjects due to heavy workload for the teachers and high pupil teacher ratio. The findings also indicate that the most widespread method of assessment in primary schools is through written tests, which are administered continuously during the mid-term and at the end of the term or year. As teachers prepare learners for the final examinations at the end of 8 years of primary education, they pattern their assessment approaches throughout on the Kenya National Examinations Council (KNEC) grid. Learners therefore spend too much time preparing for tests at the expense of actual learning and even participation in co-curricula activities.

Concerning the secondary school curriculum, the evaluation found that its objectives have not been fully achieved as envisaged in 2002. The evaluation revealed that some subjects have difficult and broad content; some schools have inadequate instructional materials; and inadequate number of teachers. With regard to aspects that relate to innovation and the application of technology, the curriculum is visibly deficient as the majority of its products do not exhibit those attributes after school. Further, most respondents indicated that the current curriculum has not played its role effectively in promoting national cohesion especially in view of the post-election violence that the country experienced in 2008. The centralized curriculum used for all regions in Kenya does not take into account the diverse needs of learners in their geographical and socio-cultural contexts. Further, there has been a concentration on imparting theoretical skills at the expense of practical skills and desired attitudes and values. Acquisition of the practical skills has been further undermined by inadequate facilities. This has particularly affected the learning of science and technical subjects whose instruction requires a practical approach. The curriculum revision of 2002 envisaged that learners would be equipped with competencies to operate effectively in a knowledge based economy. The achievement of this objective was hampered by lack of effective ICT integration.

Capacity building in curriculum implementation remains one of the major challenges facing the education sector. However, there are no regular, scheduled in-service and orientation programmes to continuously enhance the capacity of teachers to interpret and implement the curriculum effectively. Further, there is poor coordination of in-service courses offered by the different players. The evaluation found that schools burden learners with frequent continuous assessments at the expense of learning due to the high stakes placed on summative examination. Other consequences of this situation include private tutoring, extra tuition, remedial teaching and use of commercially developed examination papers which at times do not conform to the curriculum or what the teacher has taught. Further, KNEC has developed a parallel syllabus to that of KIE and it appears to be more attractive to teachers. The findings urge for more infusion of content on science, technology and

innovation into the secondary school curriculum so as to develop the requisite skills in the learners.

Pre-primary education

The aim of the early childhood development and education (ECDE) programme is to provide holistic integrated services that create a strong foundation for meeting the child's cognitive, psychosocial, moral, spiritual, emotional and psychomotor needs. The programme aims at expanding access, equity and quality of ECDE services for children aged 4 to 5 years, especially those living in arid and semiarid lands (ASAL) areas, urban slums and pockets of poverty.

In 1997, the government adopted a holistic approach to early childhood education services. The holistic approach comprises the nurture of the whole personality of the child, encompassing physical, cognitive, social, emotional and spiritual dimensions. The provision of protection and adequate nutrition as well as the promotion of good health are recognised as constituting the foundation of proper growth and development of children.

The organization of the pre-primary education curriculum is in the form of activities rather than subjects. These activities are aimed at promoting the total development of the child (cognitive, social, physical, linguistic, moral, emotional and spiritual). The following activity areas are covered: language development; environment; number work; music and movement; art and craft; physical development; and religious and moral education. Religious and moral education was included in the curriculum at the beginning of 1991, as a result of a recommendation passed at a National Seminar attended by all religious organizations and institutions in the country. In addition to the above, general health, nutrition and childcare matters are part of the pre-school education package in the daily activities.

The pre-school curriculum is also designed to encourage and enable the use of local languages as medium of instruction. In the urban centres, where the major part of pre-school offer is concentrated, the practice is to use the language of common communication, which is Kiswahili or English. The child is exposed to three hours of learning each day, divided into thirty minutes of lessons for various learning activities. The average number of children per class is between 25 and 30, but due to high demand in the urban centres, the class size could be as large as 40.

Evaluation of children's performance is through observation and listening. The pre-school teacher observes the children's characteristics and behaviour, and listens to their talk and play, both in class and in outdoor activities. In this process, the teacher is able to notice concepts that are beginning to form in the children (as expressed in their interests, abilities and achievements) and encourages their further development.

Pre-primary education is provided by local authorities, non-governmental organizations (NGOs) and private entrepreneurs (who charge fees). Most of the centres are established, owned and managed by local parents and communities. Other major sponsors include religious organizations, women groups, local government authorities, welfare organisations, NGOs, and private entrepreneurs or companies/firms. The sponsors provide and maintain the physical facilities including

land, play and learning materials and payment of the caregivers/teachers. Furthermore, there are large regional disparities. Participation is very unusual in the ASAL districts, urban squatter areas, and in areas of poverty in other districts.

The 1999 population census indicated that a total of 574,249 children were not enrolled in pre-schools and that a large proportion of children entering primary schools do not pass through pre-primary. Two main reasons attributed to this low enrolment were the minimal role played by the Government in providing early childhood development services and lack of awareness among communities and parents regarding the importance of pre-school.

According to national data, the ECDE subsector has registered significant growth and the number of ECDE centres increased from 27,535 in 2001 to 33,121 in 2006. Enrolment in public ECDE centres rose significantly from approximately 1.32 million in 2001 to 1.67 million in 2006. Though the participation in ECDE is low, there is an increasing trend in enrolment levels as shown by the increase of the gross enrolment ration from 51.7% in 2002 to 58.8% in 2006. There exist wide regional and gender variations in GERs with Nairobi Province having the highest GER at 133.8% while North Eastern Province had the lowest rate of 19.9% (22.8% and 16.5% for boys and girls respectively) in 2005. The high participation in ECDE in urban centres is partly due to demand for ECDE services by working parents.

Enrolment in privately-sponsored ECDE centres increased from 531,536 in 2003 to 590,004 in 2006. Generally, the enrolment at this level has remained low with many 4-5 year-old children directly joining primary schools especially due to the free primary education policy as compared to ECDE where parents have to pay for the school fees. The total number of ECDE teachers (trained and untrained) increased from 63,650 in 2003 to 74,529 in 2006 out of whom 71% are trained teachers. Gender and regional variation in the number of ECDE teachers still exist with male teachers constituting 12.7%. The children-teacher ratio was estimated at 22.4:1 in 2006. (Republic of Kenya, 2008; Ministry of Education, 2008).

Primary education

Primary education is expected to provide learning opportunities for children in a coordinated programme and, *inter alia*, is expected to:

- lead to acquisition of literacy, numeracy and manipulative skills;
- develop ability for clear logical thought and critical judgement;
- develop self-expression, self-discipline, self-reliance and full utilization of a child's senses;
- lead to acquisition of a suitable basic foundation for the world of work in the context of the economic needs of the nation;
- enable the development of desirable social standards and attitudes;
- lead to development of constructive and adaptive attitudes to life based on moral and religious values and responsibility to the community and nation;
- lead to appreciation of one's and other people's cultural heritage;
- enable the child to grow towards maturity and self-fulfilment to become a useful and well-adjusted member of society.

The primary school curriculum is uniform throughout the country. Curriculum development is a participatory process. It involves participation by the Kenya Institute of Education's steering committee, individual subject panels for the various cycles and areas of education and training, and the Academic Board. The participants in these panels and the Board are drawn from relevant subject teachers and specialists from schools, colleges and universities, subject inspectors, representatives from Kenya National Examinations Council, curriculum specialists from the Institute, and the interested parties from government and non-governmental organizations.

The curriculum is arranged in various syllabi, detailing what should be taught and learnt in different classes. The table below shows the weekly lesson timetable before the 2002 curriculum revision:

Primary education: weekly lesson timetable

Subject	Number of weekly periods in each grade							
	Lower			Middle		Upper		
	I	II	III	IV	V	VI	VII	VIII
English	5	5	5	7	7	7	7	7
Kiswahili	5	5	5	4	4	4	4	4
Mathematics	5	5	5	7	7	7	7	7
Science	3	3	3	4	4	4	4	4
Geography, history and civics	1	1	1	4	4	4	4	4
Religious education	2	2	2	3	3	3	3	3
Music	1	1	1	1	1	1	1	1
Agriculture	–	–	–	2	2	2	2	2
Art and craft	2	2	2	2	2	2	2	2
Home science	–	–	–	1	1	1	1	1
Business education	–	–	–	–	–	1	1	1
Mother tongue	5	5	5	–	–	–	–	–
Physical education	5	5	5	4	4	3	3	3
Pastoral programme	1	1	1	1	1	1	1	1
Total weekly periods	35	35	35	40	40	40	40	40

Source: Kenya. Ministry of Education, Science and Technology, 2001b. Each teaching period lasts 30 minutes at the lower primary and 35 minutes at the middle and upper primary levels. One period of Physical education will be used for teaching/passing messages on HIV/AIDS. The total number of lessons per day should not be more than eight.

Currently, the primary education curriculum includes the following subjects: English; Kiswahili; mother tongue; mathematics; science; social studies; Christian or Hindu or Islamic religious education; creative arts; physical education; and life skills education. Mother tongue is taught from standard 1 to 3 while all the other subjects are taught from standard 1 to 8. All the subjects taught are examined by the Kenya National Examinations Council at the end of standard 8 excepting creative arts, physical education, mother tongue, and life skills.

At the end of primary education, pupils sit a national terminal examination administered by the Kenya National Examinations Council (KNEC). Its primary objectives are to: rank candidates according to attainment of knowledge, skills and attitudes as specified in the various syllabi; improve the learning process in primary

education by providing the schools with constant feedback on candidates' performance; and provide performance criteria for selecting pupils to secondary schools and to post-primary technical training institutions.

In addition to the certificate that follows successful completion of the examination, pupils also receive a school-leaving certificate. This certificate is issued by individual schools with the authority of the Director of Education and is based on the character development and achievements of the pupil in co-curricular activities.

It is estimated that about 10% of the population (approximately 3 million persons) are disabled in one way or other. About 25% o f these 3 million are school-age children. An estimated 80,000 have been identified and assessed, but only about 15,000 are currently enrolled in educational programmes and an equivalent number have been integrated in regular schools. Although the sector has embraced an inclusive approach so that regular schools can mainstream children whose physical challenges are not very severe, existing special schools and integrated programmes do not have capacity to admit all children with special needs. At the same time, regular schools are yet to be modified and equipped for special needs learners. The main activities undertaken by the Kenya Institute of Special Education are training in the area of special education and assessment of children with special needs.

Specialized syllabuses have been developed in the area of visual impairments and physical disabilities such as cerebral palsy. Besides, specific guidelines have been developed for teaching this syllabus and imparting of specialized skills such as Braille, orientation, mobility, and activities of daily living. Many learners with visual impairment (low vision and blind) are mainstreamed in regular schools to receive instructions alongside those who are sighted. The policy is that for every class, there should be no integration of more than three learners with visual impairment, for easy services. The Government policy is that sign language becomes an official language to cater for learners with hearing impairment. As a result, sign language was introduced in primary and secondary schools in January 2007 and was expected to be examined for the first time in 2010 at the Kenya Certificate of Secondary Education (KCSE) level.

It is estimated that the number of orphans enrolled in primary schools was about 980,000 (830,000 partial orphans and 150,000 total orphans) representing 14.5% of the total enrolment in 2006. The Ministry of Education in collaboration with Ministry of Home Affairs has put in place programmes to assist orphans to ensure that they access education.

Between 1963 and 1983, enrolment in primary education increased from 891,533 to 4.3 million pupils. The Government introduced the free primary education policy in January 2003, which resulted in a further increase in enrolment from 5.9 million in 2002 to 8.2 million pupils in public and private schools in 2007. Another 300,000 primary school-age children were enrolled in non-formal learning centres.

The total number of primary schools increased from 18,901 in 2001 to 20,229 in 2006 with majority of the schools being in the public sector. During the period 2002 to 2006, enrolment in both public and private schools increased from 6.06 million to 7.63 million. Enrolment in public primary schools increased from 5.87

million in 2002 to 7.26 million in 2006, while the total enrolment in private schools was 371,995 pupils.

The gross enrolment ratio (GER) increased from 88.2% in 2002 to 107.4% in 2006. The GER for boys was 110.2% and for girls 104.6%. The net enrolment ratio (NER) increased from 77.3% in 2002 to 86.5% in 2006 (an estimated 91.6% in 2007). Highest NER was recorded in Nyanza Province (boys 98.8%, girls 97.2%), followed by Western Province (99.1% for boys and 94.6% for girls). North Eastern Province registered the lowest NER at 20.8%. The primary completion rate has increased from 59.5% in 2001 to 76.8% in 2006 and 81% in 2007. However, in 2007 there was more boys (86.5%) completing primary education than girls (75.7%). The transition rate from primary to secondary increased from 46.4% in 2002 to 60% in 2006. (Republic of Kenya, 2008; Ministry of Education, 2008).

Secondary education

Secondary education aims at:

- all-round mental, moral and spiritual development of the learner, and building a firm foundation for further education;
- enabling the learner to choose with confidence and cope with vocational education after school;
- acquisition of attitudes of national patriotism, self-respect, self-reliance, co-operation, adaptability, sense of purpose, integrity and self-discipline, respect and consideration of others, loyalty and service to society and to the world.

English is the language of instruction in all secondary schools. Kiswahili is taught along with other subjects and may be used freely among students and teachers, especially in areas where it is the common medium of communication. Before the 2002 curriculum revision, the approved subjects for the first two years of secondary education were the following: English; Kiswahili; mathematics; biology/biological science; physics; chemistry; geography; history and government; religious education; an applied subject; a cultural subject or business education; physical education; social education and ethics. Applied subjects included: woodwork; metal work; leather work; building construction; ceramics; power mechanics; motor mechanics; drawing and design; electricity; aviation technology; agriculture; home science. Cultural and business subjects included: accounting; commerce; economics; typing with office practice; music; art and design; French, German, or Arabic language. In the third and fourth years, students must study three compulsory or core subjects (English, Kiswahili and mathematics) and must take: at least two science subjects (biology/biological science, physics, chemistry or physical science); at least one social science subject (geography, history and government, religious education or social education and ethics); at least one applied subject; and at least one cultural subject.

The average duration of each teaching lesson is 40 minutes. The table below shows the average weekly time allocation to each subject the 2002 curriculum revision:

Subject	No. of hours
English	4.7
Kiswahili	4.0
Mathematics	4.7
Biology	3.3
Biological science	4.0
Physics	3.3
Chemistry	3.3
Physical science (geography, history and government, social education and ethics)	2.0
Applied/practical skills subjects	3.3
Cultural subjects, business education	2.7
Total	**35.3**

Thirty subjects are currently offered at the secondary schools, grouped in six learning areas: languages (English, Kiswahili, Arabic, German, French); sciences (mathematics, chemistry, physics, biology, mathematics alternative B, alternative science); applied sciences (home science, agriculture, computer studies); humanities (history, geography, Christian religious education, Islamic religious education, Hindu religious education, life skills education, business studies); creative arts (music, art and design); technical subjects (drawing and design, building construction, power and mechanics, metal work, aviation, woodwork, electricity).

At the end of the secondary cycle, the students sit an examination administered by the Kenya National Examinations Council (KNEC) leading to the award of the Kenya Certificate of Secondary Education. The examination is used for selection of students for university courses and for training in other post-secondary institutions. Students are also evaluated throughout the course with continuous assessment to determine the progress each individual is making. In addition to the academic certificate from KNEC, the school issues each student a school-leaving certificate, which reflects observed abilities and character development.

In the curriculum for examination, subjects are categorized into five groups. The three subjects in group 1 (English, Kiswahili, and mathematics) are compulsory. Entry requirements are such that a candidate must be exposed to English, Kiswahili, and mathematics and at least two science subjects. Group 2 includes biology, physics, chemistry, physical sciences and biological sciences. Group 3 includes: history and government, geography, Christian religious education, Islamic religious education, social education and ethics, and Hindu religious education. Group 4 includes: home science, art and design, agriculture, woodwork, metal work, building construction, power mechanics, electricity, drawing and design, and aviation technology. Group 5 includes: French, German, Arabic, music, accounting, commerce, economics, and typewriting with Office practice.

The objectives of Technical, Industrial, Vocational and Entrepreneurship Training (TIVET) are to: develop practical skills and attitudes which will lead to income earning activities in the urban and rural areas; provide technical knowledge, vocational skills and attitudes necessary for manpower development; and produce skilled artisans, craftsmen, technicians and technologists for both formal and informal sectors. TIVET encompasses technical training institutions, micro and small enterprises training and demonstration centers, youth polytechnics and national youth service skills development centers. At the post-secondary level, TIVET programmes are offered in technical training institutes, institutes of technology and national polytechnics. The management of TIVET institutions is spread over more than ten ministries. Out of the graduates of primary education, only 55% proceed to secondary schools. At the end of the secondary cycle only 20,000 proceed to universities, the rest are expected to be catered for by the middle level colleges and TIVET institutions whose existing capacity is inadequate. Enrolments in TIVET institutions grew from 51,349 students in 2002/03 to 68,379 in 2005/06 and to an estimated 73,244 students in 2008. Female student enrolment constitutes 41.1% of total student enrolment.

Enrolment at the secondary level grew from 30,000 in 1963 to almost 500,000 in 1983. The number of secondary schools increased from 3,657 in 2001 to 4,247 in 2006 (6,484 public and private schools in 2007). North Eastern had the lowest number of secondary schools (43 schools) accounting for only 1% of all secondary schools in the country. Enrolment in secondary schools grew from 851,836 students in 2002 (451,362 boys and 400,474 girls) to 1,030,080 students in 2006 (546,072 boys and 484,008 girls) and an estimated 1,180,268 students in 2007. It is estimated that in 2006 the number of orphans enrolled in secondary schools was about 135,000 representing 13.3% of the total enrolment.

The gross enrolment ration increased from 25.7% in 2002 to 32.2% (34.6% for boys and 29.9% for girls) in 2006 and 36.8% in 2007. Secondary completion rate has improved slightly from 89.5% in 2003 to 89.6% in 2004. The completion rate for boys is higher than for girls. (Republic of Kenya, 2008; Ministry of Education, 2008).

Assessing learning achievement nationwide

In Kenya, the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ) education policy research project, widely known as SACMEQ I (1995-1998), was undertaken in order to provide an assessment of the conditions of schooling and the quality of education provided by the primary education system. SACMEQ II was the second educational policy research project and commenced in 1998. The two projects gathered overlapping data at different time points, and SACMEQ I provides a valuable baseline for SACMEQ II.

A striking feature of Standard 6 pupils is their average age, which increased slightly from an average of 166 months in 1998 to 168 months in 2000, against a policy requirement of 132 months at this level. This was largely attributed to high rates of repetition, but also to the age distribution of pupils when they entered Standard 1. The average age of pupils in North Eastern Province was more than 3 years above the appropriate age of 11. Repetition rates were highest in Nyanza and Western provinces, and lowest in North Eastern and Nairobi provinces. The number of days absent ranged from 2 to 3 days a month in Western and Rift Valley provinces,

and the most significant reasons given for absenteeism is non-payment of school levies, and illness.

There were major variations among schools within provinces both in 1998 and 2000. There was also considerable inequality across provinces for a range of human resources and material inputs. This can be attributed to existing socio-economic diversities among provinces, historical background and geographical differences. Other important factors are the government policy of cost sharing in education financing and escalating poverty levels; according to economic data for 2000, the poverty incidence was 56%. This has aggravated prevailing conditions as the burden of providing material resources for schools has been put entirely upon communities/parents, whose economic base varies greatly. Pupils who come from communities that are well endowed have access to better school facilities and more resources in their schools compared to those who come from disadvantaged areas.

As regards reading and mathematics achievement levels, the highest percentages were observed at Levels 3 and 4, implying that most of the Standard 6 pupils were at basic numeracy and beginning numeracy levels. About 18% were at competent numeracy level, while only 10% had attained Level 8 competence skills. On the other hand, the fact that 16.7% (SACMEQ II) and 11.5% of Standard 6 pupils were in pre-reading, emergent reading and basic reading skills levels, is a major concern. As for mathematical skills, 10.7% of Standard 6 pupils achieved pre-numeracy and emergent numeracy levels, in other words were functionally mathematically unskilled. The low frequencies, particularly at the higher competence levels (Levels 6, 7 and 8) imply that very few students are able to achieve a high competence level in mathematics at Standard 6. This may also mean that pupils are making the transition to Standard 7 and the final grade in the primary school cycle without attaining the necessary skills at lower grades.

The analysis of the relationship between learning achievements and socio-economic status indicates that pupils from high socio-economic groups performed better than those from low socio-economic groups for both reading and mathematics in 1998 and 2000. This can be explained by the fact that children from higher socio-economic groups generally have resources, such as textbooks and other reading materials, receive better parental support, and have access to a better learning environment. (SACMEQ, 2005).

Teaching staff

Since 1990, there has been heavy investment in teacher education. In recent years, enrolment has continued to grow, calling for an increase in the provision of physical facilities, equipment and teachers competent to deal with the demands of the new curriculum.

The Government has made every effort to meet the growing demand for teachers at all levels. The non-government bodies have continued to sponsor teacher training in private colleges. Since 1990, new teachers colleges have become operational, including private establishments. Faculties of education have been

established in all the public universities, which have embarked on an extensive staff development programme to satisfy their teaching work force requirements.

Teacher education programmes are planned to cater to all levels of education and training, including special education. Teacher education is expected to: develop communication skills; develop professional attitudes and values; equip the teacher with knowledge and skills to enable him/her to identify educational training needs and to develop strategies for effective training; and enable teachers to adapt to the environment and society.

An important percentage of pre-school teachers are untrained. Since pre-primary schools are run by parents and communities, private organizations or individual entrepreneurs, recruitment of teachers and the terms and conditions of service vary from one employer to another. However, the Government is trying to prepare a uniform salary structure in an attempt to improve the conditions of teaching staffs at this level.

Those teachers who are trained have followed courses of varying duration, approach, content and quality. In-service programmes are implemented by the National Centre for Early Childhood Education (NACECE) and its District Centres. Two types of courses are implemented:

- A two year in-service course is offered to in-service teachers, at the end of which they receive the preschool teacher certificate issued by the Ministry of Education. The minimum requirement for this course is the certificate of primary education (KCPE) with at least 30 points. However, employers are raising their standards of recruitment to select those with better academic qualifications, and recent experience shows that there is an increasing number of secondary school leavers being recruited.
- Short in-service courses lasting about five months are also offered, at the end of which the trainees obtain a certificate of attendance. In addition, there are shorter courses, often on weekends, aimed at proficiency development in various areas.

The curriculum includes the following subjects: child development; materials development; health and nutrition; classroom management and administration; parent/community involvement in pre-school education; methodology of teaching. With regard to the workload, a ratio of 35 children per teacher is recommended for the 3-6-year-olds, and 25 for establishments catering to the 0-3-year-olds. This is not the actual situation in all schools; in the rural areas, where the parents are not able to employ more teachers, the teacher-pupil ratio is generally higher. An input of four and a half hours of contact daily (or 22.5 hours per week) is recommended by the Ministry of Education. The children depart at mid-day, but teachers remain in the afternoon to prepare learning and play materials.

Primary school teachers are recruited directly from the teacher training colleges by the Teacher Service Commission (TSC). The year 1998 saw marked improvements in teacher training for the primary sector. The number of public colleges increased from 15 to 21 and the number of private colleges increased form six to eight. In 1996, public colleges enrolled a total of 16,461 students.

Primary school teachers are graded according to their academic qualifications ranging from P4 (the lowest grade, now abolished) to diploma for public primary schools. Grade P4 and P3 teachers are primary school graduates. The programme offered by the colleges covers two years of study for different grades of teachers from P3 to P1. The curriculum includes the following subjects: professional studies; English; Kiswahili; mathematics; sciences; Christian religious education/Islamic studies; physical and health education; geography, history and civics; arts and crafts; music; agriculture; home science; teaching practice.

In 2007, the scheme of service establishes eight grades in the cadre of non-graduate teachers, ranging from P2 teachers to principal approved/ordinary diploma teachers. A non-graduate teacher who acquires a relevant degree or a technical qualification from a recognized institution will qualify to join either the scheme of service for graduate teachers or the scheme of service for technical teachers/lecturers as appropriate. The scheme of service establishes eight grades in the graduate teachers, from untrained graduate teacher to chief principal graduate teacher. The scheme of service establishes six grades in the trained diploma technical teacher cadre and seven grades in the lecturers.

It is expected that the teachers should receive their first professional support from the head teachers of their respective schools. The inspectorate personnel support the teachers through supervisory visits. They also organize refresher courses, especially when new programmes are being introduced. The local-level Teacher Advisory Centres, staffed with the more experienced teachers, have served as valuable resource centres where teachers meet to update themselves on techniques to prepare teaching materials.

The terms and conditions of employment are set out in the Teachers' Code of Regulations issued by the TSC. There is no distinction in these regulations between male and female teachers, but women get 60 days paid maternity leave. The salary structure is based on that of the Professional Civil Service, but adjustments are made from time to time following industrial bargaining with the Kenya National Union of Teachers.

Until 1996, the promotion of primary school teachers was based on merit. Teachers who felt they needed promotion applied (through their head teachers and the local education administration) to the Chief Inspector of Schools, following which they would be inspected. If they were found meritorious, the inspectors would recommend their promotion. This procedure has now been replaced. For a teacher to move from one grade to another, he/she must pass a proficiency test administered by the inspectorate. As the old process was insufficiently rigorous to maintain high professional standards, this new approach has been applied in order to ensure that teachers keep themselves updated with knowledge and developments of their profession.

In 2004, there were 149,893 primary school teachers in Kenya, and the pupil-teacher ratio was 40:1. In 2006, there were 31 primary teacher training colleges, of which 20 were public and eleven private. In addition, there was one diploma teacher training college which offered three-year diploma teacher education programmes. The enrolment in teacher training colleges increased from 20,177 in 2002 to 22,620 in

2006. Since the programme in primary teacher training colleges takes two years, the annual output in terms of graduates is estimated at 10,000 per annum. Female students' enrolment constituted 50.4% of the total enrolment.

Secondary school teachers are also recruited by the TSC. The majority are graduates from local universities. Others are diploma holders and, in a few cases, even P1 teachers are recruited by some small private schools. In 1996, the Bachelor of Education (B.Ed.) course offered by the five public universities enrolled a total of 10,788 students, while total enrolment in the two diploma colleges was 1,371.

The B.Ed. programme offers education as a professional course, with any two teaching subjects. At the moment, the majority of the students are following the Arts based course, but with the new emphasis on Sciences, the situation is going to change. An in-service, postgraduate diploma programme has also started, in order to reduce the number and eventually phase out untrained graduate teachers in secondary schools.

The staffing norm in public secondary schools is the curriculum-based establishment that takes into account the subjects taught and the teaching requirements. The teaching programme covers 45 periods of 40 minutes each per week, and the teaching workload for an ordinary classroom teacher is 25 periods per week.

The terms and the working conditions are covered by the Teacher Code of Regulations, but there is a separate scheme of service for graduate teachers. Promotion is normally through competitive interviews to fill vacancies in higher grades. The inspectorate provides professional support through inspections and courses targeting teachers of specific subjects.

Special education teachers are trained at the Kenya Institute of Special Education (KISE). The course caters to all types of disabilities. There are two main programmes: a two-year course for graduates from Primary Teacher Education which leads to the award of a professional diploma in Special Education; and an in-service course open to practicing teachers in different areas of special education.

All training in technical and vocational education is undertaken under the auspices of the Ministry of Vocational Training. The Kenya Technical Teachers Colleges, which formerly ran a four-year programme for industrial and business education teachers, now run pedagogical programmes for already qualified professionals in different trades. In addition to full-time courses, the Ministry offers skill proficiency courses mainly for Youth Polytechnics instructors.

The Department of Adult Education operates an in-service, model-training programme for the adult education and literacy teachers. This is a three-year course based on a curriculum prepared with the technical assistance of the Kenya Institute of Education. The course is conducted through distance learning by correspondence, radio and face-to-face sessions. At the end of the course, teachers sit a professional examination administered by the KNEC for the award of the Adult Education Teacher Certificate.

The number of teachers employed by TSC has remained constant over the years except the 4,000 recruited during 2007/08 to bring a total of 239,000. The majority of these teachers are primary and secondary teachers constituting 96% of all teachers. The remaining 4% of teachers is distributed among special and technical education institutions. The Ministry has been rationalizing distribution of teachers by transferring teachers from overstaffed to understaffed schools.

There were 169,360 primary school teachers in public primary schools as at February 2008. In post-primary institutions, there were 56,006 teachers. The shortages in both primary and secondary schools have eased slightly with the recruitment of 14,139 teachers in August 2008 out of whom 10,307 were for primary schools and the rest for post primary institutions. (Ministry of Education, 2008).

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For updated links, consult the Web page of the International Bureau of Education of UNESCO: http://www.ibe.unesco.org/links.htm