1.0 Introduction

Since independence, Kenya has articulated the need to attain Universal Primary Education (UPE). To demonstrate its conviction towards this goal, the country ratified the recommendations of the Jomtien World Conference (1990) on Education for All (1990), Dakar Framework of Action (2000) and the Millennium Development Goals (MDGs) Conference of 2000. The Education for All (EFA) Goal reiterated the right of every child to education: and emphasized the duty of every government to provide education to its entire citizen. To address the challenges in education, the Ministry of Education (MoE), in collaboration with Development partners, identified an Education Sector Review as a priority. As a deliberate effort by the government to reverse the declining educational standards, a National Conference on education training and research was held in November 2003. The objective of the conference was to build a national consensus on the kind of education Kenya needs for the 21st Century. The conference mandated the ministry of education to develop a policy framework for education in Kenya. This led to the development of a sessional paper No. 1 of 2005: A policy Framework for Education, Training and Research. The paper constituted the Government’s policy on education and training for all and the Millennium Development Goals. To operationalize the Sessional Paper, the government in collaboration with the stakeholders, developed the Kenya Education Sector Support Programme (KESSP). KESSP was developed through Sector Wide Approach (SWAp) process for resource mobilization in partnership with stakeholders (Government, Development partners, private sector, civil society and communities).
Phase 1 of KESSP (2005-2010), was launched in July 2005 and its targets were:

- Attainment of UPE by 2005 and EFA by 2015;
- Achievement of a transition rate of 70% from primary to secondary school level from 47% (2005), paying special attention to girls’ education by 2008;
- Enhancement of access, equity and quality in primary and secondary education through capacity building for 45,000 education managers by 2005;
- Construction/renovation of physical facilities/equipment in public learning institutions in disadvantaged areas, particularly in Arid and Semi-Arid Lands (ASALS) and urban slums by 2008;
- Development of a national training strategy for TIVET in 2005, and ensuring that TIVET institutions are appropriately funded and equipped by 2008;
- Achievement of 50% improvement of levels of adult literacy by 2010; and
- Expansion of public universities to have a capacity of at least 5,000 students each by 2015 and increase the proportion of all students studying science-related courses to 50%, with at least one third of these being women, by the year 2010.

In its effort to attain UPE by 2005 and EFA by 2015, the government of Kenya introduced Free Primary Education (FPE) in 2003 and Free Day Secondary Education (FDSE) in 2008. These initiatives came with its success and constrains. Access, equity, relevance and quality were the major factors that were considered to be critical in the realization of EFA goals. The number of children in primary school rose from 5.9m in 2002 to 7.2m in 2003 and to 8.6m in 2010. However, according to the 2009 population and housing census, there are more than 700,000 children of primary school age not attending school while population of ECD children is currently at 2.2m with almost a similar number outside. In 2008, the number in secondary school was 800,000 but it has since doubled with a transition rate of 72.5% from primary to secondary.
Although this trend is encouraging for access, equitable distribution, optimal utilization and the provision of adequate numbers of teachers within the existing resource envelope, has emerged as the key challenges in primary and post primary institutions since the launch of FPE and FDSE. In this regard, the critical challenge has been to establish staffing norms that are consistent with the provision of quality education in an equitable, cost effective and affordable manner.

Since 1998, when recruitment in the public service sector including the teaching service was frozen, hiring of teachers has only been done to replace those who leave service through natural attrition. Thus, the actual teacher shortage, which has been increasing over the years, has not been addressed.

2.0 Prerequisite

Teacher shortages are issue in many low income countries as they try to meet the MDGs and EFA goals by 2015. In an attempt to increase access to schooling, the growth in the number of school aged children has outpaced the growth in the number of teachers in most of the countries. The teacher gap is not only an issue of quantity but also quality. Only four years from 2015 and there are still large gaps in the provision of teachers. Kenya needs 48,000 teachers if it has to address the teacher gap.

However, besides this teacher shortage, all the 184,873 primary school teachers in the country are fully trained professionals. Pre-Service Teacher Education is a means of improving quality of teaching, learning and performance that the government has made it pre-requisite in view to rationalizing the current programmes for teacher education. Of the 94,429 ECD teachers, 77.3% are trained while 99.8% of the 53,047 in secondary schools are trained.
There are two cadres of teachers in Kenya:

1) Non-graduate teachers trained for primary school level and
2) Post primary school or graduate teachers.

It is mandatory for all the teachers to undergo a pre-service training. The primary school teachers go through two years training and are not specialized in any subject. They can teach all the subjects at that level. They join the teacher training institution with a Grade C from Secondary education. They graduate with Primary One Certificate (P1). In its endeavour to improve the quality of teachers, the government is in the process of facing out the P1 Certificate and replacing with a diploma certificate which would take three years with a much higher in-depth training of the subjects. Just to encourage the teachers to improve on their academic status, the teacher is upgraded if he went for higher course, even a degree but retained to teach at the same level.

Teachers for post primary institutions take four years of training in the university and specialize in two teaching subjects although there are a few others who undergo a diploma course for three years. They also specialize in two teaching subjects. They can further their education if they want and they can be upgraded once they complete. This is possible through school based programmes that have been developed purposely for the teachers to improve their education or by going for full time study leave that the employer can grant.

In Kenya, all the teachers are registered with the Teachers Service Commission (TSC), a Semi-Autonomous Government Agency (SAGA), under the ministry of education, a body mandated to perform teacher management functions that include registration, recruitment, deployment, remuneration, promotion, discipline of teachers and review the standards of education and training of persons entering the teaching service. The commission was established in 1967 to bring all the teachers serving in public institutions under one employer with harmonized terms and conditions of service.
3.0 Challenges

The teacher is a fundamental pillar in the attainment of EFA and MDG goals. They are the driving force in the classroom and thus affect students’ values and behaviors. Undoubtedly, teachers have a forceful influence on learning, and good teachers ideally produce good learners with the right values, attitudes, and behavior for responsible citizenship. Teachers equip learners with life skills that promote personal and societal development. They are directly responsible for carrying out the primary goal of quality education for all, and education is often correlated directly or indirectly, with economic development, health and peace. Investing on teachers and their professional development has proven crucial as demonstrated by experience with countries that have attained high learning outcomes.

Although they play a crucial role in the realization of EFA and MDG goals, they face a myriad of problems. These are

1) Teacher training and deployment

The commission provides the guidelines for effective, efficient management and coordination of training in the study leave policy. The study leave can be granted with or without pay depending on the area of study. The number of teachers on study leave at any given time will not exceed 2% of a district’s primary teacher population. Although this policy assist teachers improve their standards, there is no regular schedule set by the employer to encourage or even enforce the teachers to go for further studies. Some teachers will continue being in the same state of education and become irrelevant and outdated i.e. not catching up with the new discoveries.

2) HIV/AIDS pandemic

More than 75% of AIDS cases in Kenya occur in adults of between 20 and 45 years of age, hence imparting on the macro and micro productivity and human capital costs. Most teachers in Kenya belong to this age cohort. Like many other organizations,
TSC suffer not only from human cost but also in terms of low performance, unsatisfactory service delivery and reduced productivity resulting from teachers who are infected or affected. Evidence suggest that a teacher with AIDS loses an average of 6 months of professional life before developing AIDS, and then loses an additional one year before dying of the disease (Kelly, 2000). A teacher contributes some money from his salary to a National Health Insurance Fund (NHIF) and the employer also contributes the same amount every month but it is hardly enough in case of major illness.

3) Lack/Inadequate Learning/Teaching Resource

The government provides the teaching and learning materials to school. The textbook-pupil ratio has greatly improved with as few as two pupils sharing a textbook but still there other equipment which may not readily be available or out of reach. These are specialized equipment especially for the children with special needs. On the onset of the introduction of Free Primary Education, 1.3m children were brought on board which over stretched the physical facilities and created overcrowding in classes. The teachers had to cope up with very large numbers giving little or no attention to individual pupils compromising the quality education of education.

4) Working Conditions

Many teachers teach away from their home environments. Many schools are situated in very remote and rural places. Such places may not have decent houses for hire although every teacher is entitled to a house allowance and social amenities may be scares or unavailable. The schools have no houses for the teachers. In such cases, the morale of teachers are low and the output may adversely be affected especially the quality of education.

5) Information and Communication Technology (ICT) Compliance

ICT is currently one of the subjects taught during pre-service. With the world now racing towards the perfection in ICT development, many teachers in rural schools have no access to computers and therefore could not embrace the use of ITC.
6) Emerging Issues

Conflict, drought, high cost of living and refugees from neighbouring war torn areas are some of the emerging issues that need to be address swiftly and adequately. Since education is one of the basic rights enshrined in our constitution, many factors have emerged, that have had a devastating effect on the teaching/learning processes. In 2007, many teachers and pupils were displaced from their school environment after Kenya experienced post conflict violence. There are large number of refugee camps near the border of Kenya and Somalia and Kenya and Southern Sudan. Coupled with this is the fact that the whole of the horn of Africa is experiencing droughts from time to time. Currently, the escalation of the living standards in the country has put both the teachers and pupils in a worrying state. Although all our teachers undergo pre-service course, these emerging issues are not part of the curriculum to train them.

4.0 Strategies of achieving EFA and MDGs

Teachers play the central role in the achievement of Education for All (EFA) and the Millennium Development goal (MDG) of universal access to quality basic education. A sufficient supply of motivated, respected, supported and supervised teachers is the key elements to achieving EFA and some of the MDGs. The achievement of EFA and MDGs depends on national investments in education that are used wisely and efficiently. This includes the Provision of skilled and motivated teachers, adequate teaching materials and school infrastructure. The role teachers’ play in the attainment of EFA and MDG is critical. The commitment of the government in the provision of quality teachers for the attainment of EFA and MDGs as targeted by Kenya Government may prove to be difficult as a result of regional, social, economic and geographical disparities. However, different strategies with the help of other stakeholders have been put in place to realize EFA taking into account some of these disparities. These include:
a) Multi-Grade Teaching.

This refers to the teaching of pupils of different grades in the same classroom setting.

b) Mobile Schools.

Mobile schools are established for nomadic communities that move from place to place looking for pasture carrying their family members along. In this situation, teachers follow the pupils where they are located. The concept of mobile schools is therefore to follow the children where their parents camp. These kinds of schools are found in ASAL districts.

There are 91 mobile schools with a population of 10,631 pupils in the country. The Ministry of Education employs one teacher per school and provides a capitation grant of Ksh 650 i.e. about 80 US Dollars per child. The Ministry of Education provides also instructional materials. This programme is undertaken in partnership with other stakeholders and in particular with NGOs. They provide the school with mobile school kit which has 3 solar lamps and a tent that serves as a classroom and teacher’s house. In addition, they supply the school with a first aid kit. They also provide a camel or a donkey cart for mobility.

c) Out of school programme in Samburu.

This is a programme that operates outside the school calendar. Although the facilities of a regular school are used, the regular routine of the school may not be followed. Learning takes place in the afternoons from 4 pm to 9 pm. The programme has been practiced in the district with success. It enables children access learning and at the same time looks after animals thereby taking care of both the economic welfare and the social welfare of the people. The facilitators of the Samburu programme include the government which provides teachers, physical facilities and
learning materials. The community provides learners, basic needs, labour and security for children on their way and NGOs provide financial and materials support.

d) Double Shift Teaching.

This is a teaching approach where pupils of the same level attend lessons in two sessions i.e morning and afternoon sessions. The rationale for adapting double shift is:

(i) Over enrolment;
(ii) Shortage of classrooms;
(iii) Shortage of teachers.

e) E-learning.

ICT integration in teaching and learning began in 2005 through the NEPAD e-schools initiative. The program started with a pilot of six schools; namely; Mumbi Girls, Chavakali High School, Maranda High School, Isiolo Girls, Wajir Girls and Kikambala Primary School. The programme entailed equipping the schools with desktop computers, training of teachers in the selected schools on basic computer skills and providing content for use in teaching.

The programme has since been scaled up by the government through equipping of more than 1500 secondary schools with ICT infrastructure. Pre-service training of teachers in ICT has been made compulsory at the certificate level in primary teacher colleges. In addition, in-servicing of teachers on use of ICT in the teaching and learning process is ongoing. Currently, over 50,000 teachers have not only basic ICT skills but also are able to integrate technology in the teaching process.
The Ministry of education through Kenya Institute of Education (KIE) has developed digital content for mathematics and science for standard four to seven. Digitized content is also available for forms one and two in all subjects, and work is in process to digitize for forms three and four. This content is available in multi-media, video and text formats for use by the teacher to enrich, motivate and clarify abstract concepts.

The Ministry has developed and established the National ICT Integration and Innovation Centre (launched august 2011) which also hosts the teachers’ portal for teachers’ collaboration and interaction. The centre offers first line service and help on new technologies to schools as well as testing new innovations. In addition, the centre will also train teachers on pedagogical matters as it relates to the new innovations and technologies. A curriculum innovation centre has also been set up at KIE for developing digital curricula and carrying out capacity building of teachers on curriculum implementation.

5.0 Support Programmes for Teachers

Some of the key support programmes for teachers are described in the following sub-sections.

a) Strengthening of Mathematics and Science in Secondary Education (SMASSE). SMASSE Project has made an invaluable contribution to the continuous professional development of mathematics and science teachers by institutionalizing regular in-service training (INSET). This has provided teachers with fora for sharing and exchanging of ideas and for spread of good practices. The SMASSE centre assumed the name ‘Centre for Mathematics, Science and Technology Education in Africa’ (CEMASTEA) in the year 2003.

This programme has been running for the last 10 years. More than 15,000 Secondary School Teachers have been trained in Science and Mathematics, and also more than 54,000 Primary School teachers have been trained. Nationally, there are 108
Secondary Training Centres and 18 Primary Teacher Training Colleges that house the training centres. In addition, there are 3,300 cluster centres for the primary. Regionally, 160 teachers are trained annually i.e. 80 in Secondary and 80 in Primary.

Some of the achievements associated with this project is the coverage of the whole of the Republic and extension beyond borders to thirty five (35) other African countries from Western, Eastern, Central and Southern Africa (SMASSE-WECSA) Association, as a forum for finding possible solutions to the common challenges in member countries. These Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Congo, Cote de Voire, Egypt, Gambia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Northern Sudan, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Southern Sudan, Swaziland, Tanzania, Uganda, Zambia, Zanzibar and Zimbabwe.

The quality of teaching and learning has also improved through the practice of the Activity, Student, Experiment, Improvisation (ASEI) / Plan, Do, See, Improvise (PDSI) approach, resulting in student participation in mathematics and the sciences where the ministry has noted an increase in the enrolment of students in optional science subjects, particularly physics.

b) In-service training (INSET).

The Ministry of Education (MoE) has through its INSET Unit been running school based distance education INSET programs called the School based Teacher Development (SbTD). The SbTD was one component of the MoE Strengthening of Primary Education (SPRED 2) Project, supported by DfID. The aims of the SbTD program were primarily to ‘improve the quality and cost effectiveness of teaching and learning in primary schools on an equitable basis’. This was to be achieved through ‘teachers using new skills that promote active learning and through the use
of new textbooks’. The intention was to improve the teaching and learning environment in all public schools in the country.

The achievements under this programme include:

(i) The SbTD program reached and successfully graduated over 47,000 primary school teachers. Head teachers also received training materials and sensitization and training on their role in supporting the KRTs;

(ii) In response to the special challenge of Free Primary Education (FPE) program introduced in January 2003, the government decided to extend the SbTD program to train an additional 36,000 key Resource Teachers (KRTs) i.e. 18,000 Kiswahili KRTs and 18,000 Guidance and Counseling KRTs – one each in every school in the country;

(iii) Working with development partners, the School Empowerment Programme (SEP) was designed and developed. The SEP program is primarily aimed at empowering the school to respond positively to the challenges of FPE. These include the challenges of management in an increasingly decentralized education system, effective community links, and good teaching ultimately to support effective learning. The SEP is targeted at all teachers through school based in-service to be delivered by the KRTs with the support of the head teacher;

(iv) A multi-media distance education component has been blended into the design to support both the training of head teachers and to facilitate the school-based training started in 2005;

c) Teacher Proficiency Course (TPC)

Teachers who have served in one grade for more than three years in primary school qualify for a promotion. This is done through a teacher proficiency course. 30,000 teachers have undergone through this process.
d) NGOs have also been providing teacher with in-service training.

Various other in-service for teachers are;

A) UNICEF.

The components of this programme include:

(i) The UNICEF cluster model is a pilot project launched in April 2003 and it is operating in nine ASAL districts;

(ii) The project targets lower primary standard 1 to 4;

(iii) It was a rapid response to the challenges of FPE, to help improve the quality of teaching and learning;

(iv) While there are other elements in the UNICEF initiative, the program was designed for the empowerment of teachers through INSET – on how to create a child friendly and gender-responsive teaching and learning environment; development of low/no cost teaching aids form local resources; assessing pupils through continuous assessment;

(v) In addition to training pre-primary and primary school teachers, the cluster model provides the School Management Committees with a 2 day orientation on the programme; and

(vi) Learning resource centres have also been established and equipped to serve the cluster schools.

B) Primary School Action for Better Health (PSABH).

The key ingredients of this programme are:

(i) The PSABH scheme is integrated into the existing school-based INSET;

(ii) Delivered to over 6,500 schools and involves MoE and Ministry of Health (MoH) trainers carrying out in-service training to head-teachers, teachers and parents and the training of pupil peer supporters;
(iii) PSABH is designed to be infused and integrated throughout the school curriculum and trains teachers to provide training for their peers;

(iv) For pupils in standard 6 and 7, it promotes a reduction in high risk sexual behaviours by developing the necessary knowledge, attitudes and skills in the pupils through creative and active forms of learning.

C) Kenya School Improvement Project (KENSIP).

The KENSIP supported by the Aga Khan Foundation essentially operates in two districts in the Coast Province. The goal of KENSIP is to make quality primary education more accessible to all children in Kenya. The project is reaching 136 under-privileged government and community primary schools, targeting approximately 2,048 head teachers, teachers and government officials, and 1,694 SMCs.

D) In-service by Quality Assurance and Standards (QAS) and Kenya Institute of Education (KIE).

In addition to providing for instructional materials and infrastructure, the Government organizes in-service training for teachers through the joint effort of Directorate of Quality Assurance and Standards (DQAS) and KIE in terms of subject content mastery and pedagogical skills upgrading. It constantly reviews the various evaluation systems through the Kenya National Examination Council (KNEC) in order to establish a national assessment system for monitoring learning achievements. This is being done through two study initiatives that is Monitoring Achievement in Lower Primary (MALP) and Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ).
1) The MALP is meant to:

(i) Develop a system to monitor learned performance starting at lower primary levels;

(ii) Evaluate the relevancy and adequacy for curriculum instruction and materials;

(iii) Evaluate acquisition of skills and attitudes;

(iv) Improve the use of data at local levels;

(v) Improve capacity to develop monitoring tools and reportage on their results; and

(vi) Influence the direction of teacher training.

2) The SACMEQ studies 1 and 11 aimed at:

(i) Enhanced sharing of information on learning outcomes through cross national comparisons;

(ii) Focusing on an assessment on the conditions of schooling and the quality of education;

(iii) Equity in access to education;

(iv) Assessments for human and material resource allocations; and

(v) Measuring the literacy and numeracy levels of standard six pupils by assessing their performance and that of their teachers in English, Mathematics and health knowledge (HIV and AIDS).

3) Life Skills.

The Government has strengthened the teaching of Life skills, HIV and Aids, Health and sanitation, environmental conservation, Drug and substance abuse in all schools through infusion and integration into the curriculum. The materials for drug abuse, HIV and Aids, School health and sanitation has been developed and the list included in the schools catalogue (orange book)
as part of the approved instructional materials with instructions to schools to purchase them.

4) Action Research on Quality Education and Retention.

The Ministry of Education through the Directorate of Quality Assurance and Standards has undertaken action research on quality education and retention as an investment component under KESSP. The Directorate has also initiated a national accreditation system whose objective is to provide for continuous professional development upgrading and skills development in conjunction with private In-service Education and Training (INSET) providers.

6.0 Conclusion

Teachers play the central role in the achievement of Education for All (EFA) and the second Millennium Development goal (MDG) of universal access to quality basic education. National governments must strike a balance between the short-term need to get teachers into classrooms and the longer term goal of building up a high-quality professional teaching force. Addressing the teacher quality and equity requires country driven long-term strategies and firm commitments. Policies must encompass attention to professional development opportunities, adequate employment and teaching conditions and greater participation of teachers in decision-making via social dialogue. The achievement of EFA and MDG 2 depends on national investments in education that are used wisely and efficiently. This includes the provision of skilled and motivated teachers, adequate teaching materials and school infrastructure, as advocated in the Dakar Framework for Action on Education for All (EFA).

The extent to which teachers’ voices are heard often determines the success or failure of education reforms. Teacher to pupil ratios and teachers’ skill levels, motivation and sense of professional responsibility are among the major factors influencing repetition
rates, student performance and other quality indicators. Yet there is a decline in teachers’ working conditions and salaries and a consequent global shortage of teachers.

UNESCO (2004) identifies strong governmental leadership and a sufficient supply of motivated, respected, supported and supervised teachers as the key elements to achieving EFA. Furthermore, sustaining the supply of teachers is a major component of the national budget for education. The future supply of teachers is therefore a critical issue for both education quality and financial stability.