1. Introduction

1.1 Background
On attainment of political independence in 1963, the Government of Kenya (GoK), households and the private sector collectively endeavoured to enhance the development of education in the country. The rapid development of education and training in Kenya was an aftermath of the Sessional Paper No. 10 of 1965 on African Socialism and its Application to Planning in Kenya, which emphasized combating ignorance, disease and poverty. It was based on two long-standing concerns that: (i) every Kenyan child, irrespective of gender, religion and ethnicity, has the inalienable right to access basic welfare provision, including education; and (ii) the GoK has an obligation to provide opportunity to all citizens to fully participate in socio-economic and political development of the country and also to empower the people to improve their welfare. Development of education since independence has been marked by various changes and challenges. For nearly four decades therefore, the sector has undergone several reviews by special commissions and working parties appointed by the government, with the aim of improving efficiency and effectiveness of the education provision.

1.2 Problem Statement
While education is considered to be a basic right and need, the delivery of secondary education in Kenya has been sluggish due to several bottlenecks: (i) declining access and participation rates, as indicated by declining gross enrolment rates (GER); (ii) differential trends in access and participation in secondary education, with low participation of the poor and vulnerable groups and widening gender and regional disparities, particularly in the ASAL, amidst concerns over equity promotion; (iii) poor performance in sciences, mathematics and languages; and (iv) high wastage: declining completion rates, low survival levels from primary school to university, and low female enrolment in science and technical courses.

The pertinent policy question arising here is: How can the GoK satisfy the increasing demand for the limited number of secondary school places in order to enhance access and participation in secondary education, against the background of negative effects of the cost-sharing strategy in education?

1.3 Study Objectives
Objectives of this study included documentation of patterns of student enrolment by province and gender; status of the teaching force; availability and adequacy of physical resources; efficiency in utilization of the specified teaching period; students’ performance in key subjects; and causes of regional inequalities in student access to and participation in secondary school education.

1.4 Methodology
The study adopted an exploratory approach, with a descriptive design. Four provinces were randomly selected, with one district purposively selected from each of the provinces. The key respondent sources included the Ministry of Education, Science & Technology (MoES&T) staff and opinion leaders at the community levels. Personal interviews based on unstructured interview schedules; group discussions and direct observation were used to complement the secondary data. The Statistical Package for Social Science (SPSS) computer programme was used in data analysis.

2. Results and Discussion

2.1 Access to Secondary School Education

2.1.1 National Level Student Enrolment by Gender
Secondary school enrolment increased in absolute numbers over the last 39 years between 1963-2000. However, from 1988/89 enrolment dropped considerably, with the greatest drop from 41.5% in 1990 to -0.69% in 1991, and a further drop between 1992 and 1993 from 2.4% to -15.5%. These declines coin-
decided with the introduction of the cost-sharing strategy in education during the 1988/89 fiscal year and further adjustments in the education sub-sector in 1991/92 fiscal year, through the Education Sector Adjustment Credit (EDSAC). The latter emphasized enhanced implementation of user fees; limited employment of staff in educational institutions; restricted recruitment to teacher-training colleges and enrolment in universities; provision of school texts in the disadvantaged and ASAL districts; and quality education and budget rationalization within the sector.

The proportion of girls in secondary schools increased rapidly from 9,567 (31.8%), at independence in 1963, as compared to boys 20,553 (68.2%). In 2000 out of 652,283 students, 306,867 (47%) were girls, indicating a near gender parity.

### 2.1.2 Gross Enrolment Rates by Region and Gender

There are major regional and gender disparities, with best performing districts in the non-ASAL regions. Among the first 14 best performing districts in the country (ranked by GER), five were in Central Province, four in Rift-Valley, two in Western, two in Nyanza and only one in Coast Province.

None of the districts with GER above the national mean figure of 20.5% were either from Nairobi (urban) or the predominantly ASAL North Eastern and Eastern Provinces. The poorly performing districts were concentrated in the ASAL regions of North Eastern, Eastern and Coast Provinces. The districts with severe gender disparities as of 2000 included Wajir (GER: girls 2.7%, boys 8.8%); Mandera (GER: girls 3%, boys 6.9%) and Garissa (GER: girls 4.7%, boys 13.1%) in North Eastern Province. In contrast, the districts with overall high GER and near gender parity were Kiambu, Nyeri, Nyandarua, Muranga, and Kirinyaga in Central Province; Taita-Taveta in Coast Province and Kakamega in Western Province.

### 2.2 Quality of Education

#### 2.2.1 Teaching Force

**2.2.1.1 Teacher deployment by Province**

There was a higher concentration of trained female teachers in Nairobi (71% or 1,122 females out of 1,562) and Central (45.2% or 4,052 females out of out of 8,902) Province s. Generally, this situation was attributed to better quality urban services and living conditions, which attract females. These and close proximity to the city of Nairobi, for Central Province, attract married women whose spouses work and reside in the city. Coast and Nyanza Provinces had less than 30% female teaching force.

In the predominantly rural North Eastern Province only 7 (3.2%) out of 217 trained teachers were female, partly due to the cultural beliefs and practices of the nomadic pastoral communities, which hardly support girls' education. Even the mobile schools introduced by MoES&T have not translated into enhanced participation of the females, mainly because many non-pastoralist teachers, especially women, serving in the ASAL tend to make arrangements for transfer to the less hardship areas soon after deployment.

**2.2.1.2 Student-Teacher Ratio by Province**

Based on 1999 statistics, all provinces, except North Eastern, showed low student-teacher ratios. The highest student-teacher ratios, in decreasing order, were found in North Eastern (23.5), Western (17.4), Nyanza (16.7), Rift Valley (16.7) and Central (16.5) with lowest student-teacher ratios in Nairobi, Coast and Eastern (11.5, 15.4 and 15.7), respectively. The national student-teacher ratio was 15:1, while the student-trained-teacher ratio was 16:3. Low student-teacher ratios allow better and more individualized teaching and learner supervision. But commitment to very low student-trained-teacher ratios, for instance, below 20 students per teacher, makes little sense as it results in increased secondary school unit cost. Increasing the student-trained-teacher ratio would be desirable, to enable more students to access secondary school education with minimal or no extra costs.

#### 2.2.2 Physical Facilities and Instructional Materials

Instructional materials (textbooks, science equipment and reference materials) are crucial to students’ learning. In most schools, many facilities, basic equipment and materials are in a sorry state, a condition that has forced them to turn to parents and communities for alternative financing and provisioning. Students from low-income households are most affected by impact of constraints in financing and supply of learning materials. Schools have not developed a book policy for purchasing and distribution of books to students.

#### 2.2.3 The 8:4:4 Curriculum and Teaching Hours

Extra tuition outside the official teaching hours has become increasingly common, and a major concern to
parents and other stakeholders. Service financing (ranging from Kshs.1,500 to Kshs.3,000 per student per term) and the teachers’ ability to teach and process the students’ homework after the long day’s regular teaching are key issues.

### 2.2.4 Performance in KCSE Examination

In general, the students’ performance in Kenya Certificate in Secondary Education (KCSE) mathematics and science subjects, by sex, in the study districts in year 2000 was below 50%. In mathematics, for example, the national mean score was 42.3% for males and 26.8% for females, exhibiting gender percentage point differential of 15.5 in favour of boys. The mean differences between boys and girls were: Kiambu (4.7%), Bungoma (9%), Kisumu (15%) and Garissa (8.8%). The greatest gender point performance differential in mathematics occurred in Kisumu and Bungoma districts, while the general performance in mathematics was worst in Garissa, with a mean score of 14.9% for boys and only 6.1% for girls. Effectively, this means that on average 85.1% and 93.9% of boys and girls respectively, in Garissa district failed in mathematics.

In physics, the national mean score was 45.8% for boys and 41.3% for girls, registering a gender percentage gap of 4.5%. In the study districts, the gender percentage gaps were as follows: Kiambu (5%), Bungoma (8%), and Kisumu district (8.7%). While the gender gap was higher in Bungoma and Kisumu, no girls registered for physics in Garissa district. The same trend was observed in chemistry and biology where no single girl sat for the subjects in Garissa district.

This scenario should be taken with a lot of concern due to the centrality of the subjects in question.

### 2.2.5 Completion Rates

These declined from 86.7% for boys and 86% for girls (nearly at par) in 1990 to 75.5% and 79.8% for girls and boys respectively in 2000 (a 10.5 percentage point decline for girls and only 6.9 percentage point decline for boys).

### 2.3 Disparities in Regional Enrolment and Participation

#### 2.3.1 National Level

At the national level, the high cost of education (fees and related school levies) and household poverty level are the critical factors affecting student enrolment and participation.

#### 2.3.2 ASAL Areas

Male preference attitudes and the pervasiveness of the institution of patriarchy reduces household level resource commitment to education of the girl-child. The ASAL communities, through traditional, religious and cultural values, tended to disparage secular education for girls who are usually withdrawn from school at tender ages either to help in domestic chores or to undergo harmful initiation rites, particularly the female genital mutilation (FGM) and forced early marriages to elderly influential and rich men. Other cited drawbacks include low community level premium attached to education; teachers’ negative attitudes towards the learners (particularly girls); students’ lack of interest in learning; poor motivation on the part of both the learners and teachers; inadequate schools and classrooms; and long bandit-infested distances to school.

#### 2.3.3 Low Income Urban Areas

Children in these areas are commonly withdrawn from school to help in domestic chores or participate in petty informal trade. Child labour and prostitution are common especially among young girls not attending school.

#### 2.3.4 Non-ASAL Agricultural Areas

In some of the non-ASAL high economic potential regions, fewer boys than girls enrolled in both primary and secondary schools, indicating more positive attitudes and higher premium attached to the education of girls than their ASAL counterparts.

### 3. Recommendations and Policy Options

3.1 Increasing poverty levels, escalating cost of education and reduced government investment in education, call for innovative strategies to enhance access to, and participation in secondary education. Some of the opportunities lie in:

- Creation of an enabling environment for private investor participation;
- Special secondary school levies on certain luxurious commodities like beer, cigarettes, perfumes, sweets, cinemas and other entertainment services, and advertisements.
- Setting up or strengthening the existing bursary funds at the district, divisional, location, and constituency levels to supplement the MoES&T bursary fund. Appeals could be made to the economically well-to-do individuals, institutions, socie-
ties and alumni to contribute to boost such funds;  
- Establishing school based fee waiver mechanisms and income generating activities. Schools can work out modalities through which poor parents can pay fees for their children in kind, using equivalent resources like charcoal, cereals, or direct labour, to facilitate education financing among the very poor households.

3.2 On the retrogressive ASAL socio-cultural traditions and religious values and practices, opportunities lie in:
- Community sensitization and affirmative action to recruit more female teachers in mixed and girls’ schools to act as role models.
- Enforceable legal enactments to compel parents to educate both boys and girls.

3.3 On inadequate and poor quality of physical facilities and instructional materials:
- Ensure access by individual schools to instructional facilities and equipment.
- Individual schools to have a basic facilities procurement and maintenance policy.
- Ensure adequate circulation of basic textbooks among learners.
- Well endowed schools, in terms of better physical facilities like laboratories and libraries, should be willing to share them with their less endowed neighbouring schools.

3.4 School management imposed costs:
- The MoES&T in providing fee guidelines should also allow individual schools to work out fee rates, suited to their needs and economic potentials;
- Monitoring the effectiveness of such indirect secondary school levies as holiday and weekend tuition, mock examination fees and other special funds, with a view to abolishing them if they do not appear to make any qualitatively convincing difference in students’ performance.
- Schools to diversify their income generating activities: school farms and hiring out school space and facilities for use during school holidays, among others, to minimize turning to the already over-burdened parents.
- Proper accounting for school funds from different sources. Efficient school funds utilization, with strict monitoring and auditing, should constitute a key feature of this process. Surplus funds could be used to assist the poor and vulnerable students or even improve the quality of facilities and services.
- In line with the commitment to achieving education for all (EFA) as envisioned at the World Education Forum in Dakar, Senegal in year 2000, the focus of donors and development agencies is on basic education. The government should thus, move towards incorporating the secondary education into basic education as recommended by the Koech Report, to enable the secondary school sub-sector to benefit from all funding sources targeting basic education.
- Educational reforms have had a major impact of transferring the burden of financing secondary education to parents and guardians. This, in effect, has had negative impact on secondary school enrolment. As such, the government, development partners, academic, private sector, and other stakeholders should jointly review the cost-sharing policy at the secondary school level, looking into viable partnerships for positive solutions in promoting access to and quality of secondary school education.


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