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Achieving Sustainable Universal Primary Education through Debt Relief

The Case of Kenya

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Abstract

This study critically reviews the education sector in Kenya and the challenges facing the sector in achieving universal primary schooling. The study argues that the introduction of cost-sharing system in Kenya has resulted in high dropout and repetition rates, low transition and completion rates. These problems are exacerbated by the fact that children from poor households, whose parents cannot afford to pay fees, end up dropping out of school. Lack of textbooks has also resulted in poor performance in the national examination. The study also notes that as much as the government is subsidizing education in terms of paying teachers, reduction of debt overhang is important and that debt servicing must be addressed to free resources for social service provision, the case of education. The study argues that much more fiscal resources are being spent on servicing both external and domestic debts than are being spent on education and health. The paper therefore justifies the case for universal primary schooling in Kenya through debt relief. It discusses the key priority areas in education where resources from debt relief could be spent effectively to achieve sustainable universal primary education.

Keywords: debt relief, primary schooling, universal education

JEL classification: I12, I13

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1 Introduction

Investment in human resource development enables individuals to effectively participate in the national development process. In particular, investment in education plays a significant role in human development through the process of empowering people to improve their well-being and to participate actively in building the nation. The two post-independence decades in Kenya experienced high enrolment rates. However, this trend has recently been reversed at all levels of education, particularly at primary and secondary levels. High repetition and dropout rates, low completion and transition rates have been the order of the day. These losses are attributable to the high cost of education, which has had a negative impact on access, retention, equity, and quality of education.

The crucial role played by primary education has led to it being declared a human right to which every child is entitled, and the provision of which should, therefore, be the responsibility of the state. In Kenya, the state does not require formal payment of fees at this level, but due to constraints in fiscal resources, hence inadequate government revenue, necessary measures including cost sharing were instituted to reduce recurrent expenditure and to enable the government to expand and improve existing educational institutions.

One goal of the educational reforms was to ensure that educational opportunities reach all segments of the population, especially those living in economically disadvantaged areas. These reforms have had both positive and negative effect on the education system. For instance, the cost-sharing schemes in education were instituted in 1988 to deal with the problems of large share of the recurrent budget, increased enrolment and reduced quality of education, insufficient funds for books and equipment. The introduction of cost sharing in 1988, however, could have contributed to the decline in school enrolment. Under the cost-sharing system, in addition to previously existing costs such as uniforms and transportation, households are to meet some of the other costs (initially funded by the government) such as construction of school, purchase of textbooks and school equipment, and occasionally extra tuition while government takes responsibility of remunerating primary school teachers.

However, parents, particularly the rural and urban poor, have not managed to provide these for their children. The increased level of poverty makes parents unable to feed their children properly or to provide adequate health services and education. Children, whose parents cannot afford the cost of instructional materials, school uniforms, tuition fees and activity fees tend to go to school irregularly and, in the long run, drop out of school (GoK 2000).

Faced with limited resources and reduced returns from education, parents are not only unable, but also unmotivated to educate their children. Cost sharing was also extended to tertiary level of education. At universities, students' accommodation and catering departments introduced strategies such as 'pay as you eat'. In the case of teachers' colleges, trainees are to pay tuition fees. Other reforms in the education sector include curriculum changes, school milk/feeding programme among others (see Annex Table 1).

Given that the excessive burden of cost sharing is one of the factors behind the decline in enrolment, and high dropout rates and because of the targets of universal primary

education that the government would like to achieve, it is important that the government relieves the parents from the increasing share of the costs of education. However, as external debt continues to claim such an appalling share of government revenue, it is difficult to see how the resource gap can be bridged in the absence of a reduction in debt. Oxfam's experience is that educational costs are already imposing an extreme hardship on poor households, thus excluding many of them from the educational system, an outcome that is reversing the government's goal of achieving sustainable universal education for all.

The aim of this paper is to identify the factors that are associated with decreasing primary school enrolment and which can be modified by policy to achieve the aim of universal primary education in Kenya. In particular the study seeks to address the following questions:

- Can Kenya use resources from debt relief to provide sustainable universal primary education to school-aged children?
- What are the various cost-effective policy alternatives that are available in terms of promoting education for all?

This paper is organized as follows: section 2 discusses the structure of the public schooling system in Kenya. Section 3 gives the current status of education in Kenya, section 4 outlines the *Master Plan on Education* and training and the poverty reduction strategy in the education sector; section 5 explains the debt burden and challenges facing the education sector in Kenya. Section 6 examines debt relief and universal schooling for all; policy scenario for achieving universal primary schooling in Kenya is discussed in section 7, while conclusions are discussed in section 8.

2 Structure of the public schooling system in Kenya

At independence, Kenya adopted a philosophy of education that would best serve a country united in national purpose. It was felt that in addition to imparting market skills to the labour force, a national education system should always aim to remove social injustices and disparities, and also prepare and re-orient the youth to recognize and to practice the best norms and values of society. Consistent with this educational role, a key political conviction of the government is that every Kenyan has an inalienable right to basic education (GoK 1988).

Since independence, the government has formulated various educational policies and programmes such as the establishment of a public educational system with national curricula; a national teaching service, and a national examination and certification body. The government also established national schools and national training institutions as well as special educational programmes to meet various development needs. The key current components of the national education system are given next.

2.1 Early childhood education

Education, care, socialization and total development of children under the age of six are major concerns of the government. The government recognizes pre-school education as

a critical educational cycle for laying a firm and healthy foundation for children during the formative years. Thus, the government allocates resources annually to support this and other educational levels. The next stage of schooling is primary education, the official entry age is six years.

2.2 Primary education

The government considers primary education as the most ‘general’ of all educational skills and also a basic human right that is to be provided to all Kenyans. The expected minimum duration of schooling is eight years. General work skills begin to be imparted to children at this level. The specific objectives of primary education are stated in Sessional Paper No. 6 of 1988 on *Education and Manpower Development for the Next Decade and Beyond* (GoK 1988). These include (i) imparting literacy, numeracy and manipulative skills; (ii) developing self-expression and utilization of the senses; (iii) developing a measure of logical thought and critical judgement, and (iv) laying the foundation for further education. Primary education is also tailored to develop awareness and understanding of the environment; to develop the whole person including the physical, mental and spiritual capacities; to appreciate and respect the dignity of labour and to develop positive attitude and values towards the society.

2.4 Secondary education

Secondary education absorbs the primary schoolleavers in the 14–17 year age group. It is also the transitional stage between primary and higher education. The aim of secondary education is to create human resource base for the country, at a level higher than primary education. Performance in the Kenya Certificate of Secondary Education (KCSE) examination, which is attempted at the end of the four-year secondary course, is used as the criteria for selection into university and training in middle-level trades and other professions such as primary teaching and vocational and technical jobs (GoK 1998).

2.4 Vocational and technical education and training

Vocational and technical education and training in Kenya are offered in a variety of trades and professions at four post-school levels: artisan courses offered in youth polytechnics¹ and on-the-job (formal sector and *jua kali* apprenticeships) certificated by Kenya National Examination Council (KNEC) and district-based institutes of technology (DITs) respectively; craft related courses offered in technical training institute (TTIs) and institutes of technology (ITs) and certificated by KNEC; technician related training in some TTIs and ITs and all national polytechnics (NPs) with a diploma awarded by KNEC; and lastly technologist courses with diplomas offered at the NPs, universities also offer technologist degree courses to which, among other aspirants, some graduates from ministry of research and technology (MRT) institutions proceed. Most of the on-the-job trainees who take the DITs tests do not proceed beyond the qualification designated Trade Test Grade 1 (GoK 1998).

¹ Youth polytechnics are community institutions established partly in response to restricted general education opportunities at the secondary level.

2.5 University education

The universities constitute the apex of the formal system of education. The minimum expected number of years is 4. Universities are charged with the role and responsibility of teaching, undertaking research, developing and advancing knowledge, and storing and disseminating the knowledge generated. University education and training programmes are expected to respond to the demands of national development and socioeconomic needs, and to provide solutions to contemporary problems facing society.

The structure of the public school system is complemented by a similar system of private and non-government educational institutions. Although private institutions are a major component of the educational system, their location has a strong urban bias and is generally found in better-off parts of the country. A detailed examination of the private education sub-sector is outside the scope of this paper.

3 The current status of education in Kenya

Kenya has made remarkable progress in the education sector since independence and is well-off in this respect compared to many low-income countries (see Kimalu *et al.* 2001). Despite the tremendous progress in education, substantial problems exist. First, with regard to initial access, inherited geographical and gender disparities are still persistent, a rising number of urban slum children, children with special needs, AIDS orphans and the rural and urban poor are not attending school. Further, enrolment rates have not kept pace with the increase of the relevant age group. Second, there is evidence that compared to normal children, the proportion of the handicapped receiving formal education is far below their share of the population.² Third, a high dropout rate is resulting in an unacceptably low proportion of pupils who complete the primary course (see Annex Tables 2 and 10). Fourth, a high rate of grade repetition (see Annex Table 10) leads to inefficient utilization of resources.

The 8-4-4 system,³ which aimed at teaching practical skills to students, has practically proved to be impossible. The system is difficult to achieve due to lack of trained staff to handle the subject and also due to lack of relevant school equipment, including textbooks. The Kenya school equipment scheme, which used to supply books to schools, is no longer in existence. As a consequence of the combined effects of current fiscal policies and rising poverty among households, participation in education and training (in terms of enrolment, persistence, and quality) has declined. Enrolment growth rate in both primary and secondary schools, which averaged 7.36 per cent and 21 per cent between 1963 and 1972 and averaged 8.2 per cent and 8.45 per cent between 1973 and 1987, declined to 1.2 per cent and 2.3 per cent, respectively, between 1988 and 1999 (Kimalu *et al.* 2001).

² See Karugu *et al.* (1995); Government of Kenya and UNICEF (1994). There is no provision for those with speech and language disorders, the learning disabled, the emotionally disturbed, and for the gifted and specially talented.

³ The current system of education requires that a student covers a minimum of 8, 4 and 4 years in primary, secondary and university levels of education, respectively.

The government of Kenya, in making cognisance of the rising proportion of households unable to pay for basic needs including education of their children, has committed itself to improving the current status of education. This is evidenced by the master plan, which acknowledges the need for a balance in the public budget between allocations to social on one hand and on the other hand, to infrastructure necessary for economic development and poverty reduction strategy paper (PRSP), whose twin purpose/objective is poverty eradication and economic growth.

4 The master plan on education and training and the PRSP

4.1 The master plan on education and training, 1997-2010

In line with the national development philosophy, every Kenyan has the inalienable right to basic welfare provision, including access to education and the government of Kenya (GoK) has an obligation to provide opportunities to all Kenyans to participate fully in development of the country and to obtain a decent standard of living.

In meeting the obligation of providing education and training (E&T), GoK seeks to build partnerships with other interested parties such as parents and communities, the private sector of the economy, NGOs, external donors and workers (organized or otherwise) in the E&T sector. The *Master Plan on Education and Training 1997-2010* states in its policies that: The principal thrust in GoK policy on primary education will be to accelerate the attainment of education for all (EFA). This will entail increasing efficiency and effectiveness through the development of a legal and management infrastructure that institutionalizes decentralization of power and authority through devolution of professional management and financing to local government authorities (LGAs) and school committees which, as compared to MoE &HRD, are better placed to be accountable for the quality of outputs and outcomes. Policy will take into account the need for prioritizing allocation of resources to the subsector relative to other sub-sectors and realistic pacing and sequencing of interventions so as to attain gradual but sustainable change.

The plan also gives the specific policies that will guide the development of primary education as follows:

- The planning, financing and management of primary education will be decentralized to LGAs and school committees;
- Primary education will be made accessible to all children in the age group 6-14 years, with the aim of achieving a net enrolment ratio of 100 per cent;
- The quality and relevance of education will be continuously improved. Within each LGA, a unit with responsibility for quality development will be created. A quality assurance unit, with branches in the provinces, will be developed at the central government level; and
- Efficiency and effectiveness of resource mobilization, allocation and utilization will be continuously improved and accountability strengthened and ensured.

To improve the current status of primary education, the master plan sets out strategies to be adopted. To increase access and participation, and to ensure that the country is

moving towards providing education to all children in the year 6-14 age group, the following strategies will be adopted:

- Raise the rate of enrolment in standard one, increase the primary school completion rate, and reduce grade repetition;
- Raise access to the handicapped to be at par with that for normal children;
- Give support to institutions offering education outside the formal system; and
- Improve the nutrition and health status of pupils, with attention being given to the special needs of the handicapped.

Strategies to raise relevance and quality; and to ensure that resource mobilization and allocation are enhanced and that accountability is ensured, were also adopted.

4.2 PRSP implementation matrix for the education sector

To enhance access, retention, completion rates and attainment at the primary level, the strategy is to expand the provision of textbooks and other learning materials to attain a desired pupil textbook ratio of 3:1 at standard levels 1-4 and 2:1 at standard levels 5-8. This totals to two million textbooks covering seven subjects, to be provided each year for two years. This, it is hoped, would result in an increased enrolment rates of 2.5 per cent per year and reduced dropout rates of 2 per cent per annum. The cost and timeframe associated with this is Ksh 660 million in the initial financial year.

To monitor, enforce and control exploitation of parents, the PRSP strategies to reduce the burden of user charges on parents by formulating a pro-poor textbook and uniform policy, by removing user charges on coaching and assessment and also by reducing activity and maintenance user charges. The proposed reduction in the number of taught and examinable subjects in primary schools from thirteen to seven and seven to five, respectively, has already been implemented. This was quite a huge relief for both parents and pupils.

The government also seeks to expand the provision of bursaries, subsidies and the school feeding programme. The outputs to this effect involve the provision of grants to 47,000 pupils in 199 primary schools, feeding programmes in schools, provision of meals to more than 488,700 pupils and reduction in the examination costs at primary level by 20 per cent. Suggestions were also made to enhance educational opportunities for the poor at the secondary and post secondary level.

The provision of educational opportunities to those children who are not able to participate in the formal system was also given priority. This is to be achieved through the provision of resources while targeting at AIDS orphans, child workers, children from nomadic groups, unenrolled rural poor, slum dwellers and students with special needs, and facilitating the transition of non-formal to formal educational programmes. This, it is hoped, would reduce the share of children without basic numeracy and literacy skills by 6 per cent annually especially in the urban areas. Illiteracy levels are also expected to decline by the same percentage.

It is expected that improved management and utilization of resources within the education sector for funding of anti-poverty strategies can be achieved through

increased primary school pupil teacher ratios to 34:1; utilization of curriculum-based establishment to determine strategy levels at the secondary school level through demand-driven hiring and redistribution and natural attrition; decentralization of teacher and school management to district (school levels supported by capacity building), introduction and encouragement of multi-grade and double shifts teaching, and eradication of illiteracy among adults through review and development of basic literacy curriculum.

The government recognizes the need for additional resources in the education sector, and the large contribution of the private and religious sectors. Improved access to basic education (including special education) is a government priority and it will move towards the goal of universal primary education (GoK 2001). This target, however, has been severely curtailed by the high levels of debt.

5 The debt burden and challenges facing the education sector in Kenya

The debt burden in the less developed countries (LDCs) is one of the root causes of poverty, and remains a steely constraint on the progress towards meeting 2015 targets. Targets related to the overall goal of 2015 of reducing the proportion of people living in extreme poverty by half include universal primary education; reduction of infant and child mortality rates by two-thirds; reduction of maternal mortality by three-quarters; access to reproductive services for all persons in the relevant age groups; and a reversal of the current trends in the loss of environmental resources and the accumulation of hazardous substances (Drop the Debt 2001). One specific policy proposed to help meet the targets was that a minimum of 20 per cent of government budgetary expenditure in developing countries be allocated to basic social services, as well as 20 per cent of aid flows. This target has been severely curtailed by the high levels of debt.

Debts, both domestic and external, continue to weigh down on the Kenyan slumping economy. Overall, public debt shot up to KSh 612.2 billion (of the total debt, KSh 202.9 billion is domestic while KSh 409.3 billion is external), accounting for 71 per cent of GDP by the end of May. This means that nearly three-quarters of Kenya's national income for the year 2000 would be swallowed by debt, leaving only 29 per cent for the country's use. Debt repayments are seriously hampering efforts to reduce poverty as they take over 30 per cent of the budget allocations which could be used to provide essential services such as health, education, housing and agriculture under the poverty reduction strategy.

In recent years Kenya has been making net repayments out of the foreign debt (redemption exceeding new borrowings) to the tune of 1 per cent of GDP in 1997/8, 1.2 per cent in 1998/9 and 1.9 per cent in 1999/2000. These are huge outflows, which have forced the country to borrow heavily (GoK 2001). Unlike external debts, internal debts are unlikely ever to be written-off or reduced by domestic creditors. However, the government of Kenya, as outlined in the PRSP, has committed itself to reducing the domestic debt overhang to a sustainable level.⁴

⁴ The specific sustainable debt policy measures to be undertaken are beyond the scope of this study).

Since independence, Kenya has faced higher population growth rates than the ability of households and of the state to provide for essential needs, including education and health services. This has been a concern to policymakers and scholars. As the population rate surges ahead, there has been a rise in the number of poor households. In spite of, at times, tremendous efforts to eradicate poverty in Kenya, its persistence is troubling. According to human capital theory of investment, the expectation of a good job creates the incentive for human capital investment of particular interest for education. If returns, in the form of wages, are too low or too uncertain to justify the sacrifice required, the individual has no incentive to invest.

In Kenya, many children who enter the school system at the primary level, do not complete the cycle, as pupils drop out at various stages of the system. Several factors are responsible for the high dropout rates and, hence, low completion rates among primary school pupils (see Annex Tables 6, 10 and 14). Schools require pupils to have uniforms, textbooks and stationary, and to pay tuition, building fund and activity fees. Due to high cost of these items, children, whose parents cannot afford to provide all or most of these requirements, are always under pressure from the administrators. The frustrations these pupils go through affect their academic performance. They lose interest in education and, eventually, drop out (Abagi and Odipo 1997).

Other challenges facing the sector include: (i) the mismatch between formal learning in institutions and economic opportunities in society; (ii) inadequate national coordination of education and training; and (iii) pressure on the public budget allocation to the sector. Without community financing, the basic education systems of many developing countries would collapse. Such financing and the associated in-kind contributions are needed to maintain and develop school infrastructure. However, an over-dependence on community financing in a context where public provision is grossly inadequate will produce an education system that consigns the poor to low quality education or which excludes them from the educational system altogether.

Recent poverty studies (Mwabu *et al.* 1999; Mwabu *et al.* 2000; Alemaheyu *et al.* 2001; Oyugi and Mwabu 2001) have shown that education is a (pro-poor policy) key element in eradicating poverty, hence linking debt relief to education is one way in which the poor will benefit from the HIPC Initiative. Pro-poor policies, supported by effective development assistance, are essential if Kenya is to reach the international development targets. Debt relief should also be conditional, otherwise the result could be increased military or prestige spending and more debt.

6 Debt relief and universal education for all

One of the main benefits of the debt relief initiative is that reduced annual debt-service payments will make it possible to accommodate higher levels of expenditure in areas identified as key factors to accelerate enrolment in primary school (Trotsenburg and MacArthur 1999). Similar to other governments that have already reached the decision point and have thus qualified for debt relief, Kenya also needs to be considered for debt relief, as it has already identified priority areas in which investment needs to be undertaken to meet the target of 2015.

Another important objective of the initiative is to regularize the financial situation of poor countries. In addition to increasing poverty-reduction expenditures, efforts are needed to improve their efficiency, both in terms of inter-sectoral composition of public spending and allocation of inputs within sectors. In Kenya, 96 per cent of total recurrent education expenditure goes to teachers' salaries. As textbooks, supplies and equipment, and maintenance of school buildings are left to the parents, this has an implication on the quality of education achieved. Betts (1999), experimenting with two groups of children in which one group gets financial assistance to buy textbooks and uniforms, found that such expenditures reduced dropout rates relative to the control group without the same assistance.

The study also found that class sizes increased considerably, as parents decided to enrol their children in schools that received additional funds. The study concluded that schools could reduce dropout rates (without lowering academic standards or additional spending) by increasing class sizes and using the savings to buy textbooks and to reduce the fixed costs of sending children to school.

The benefits in terms of enhanced access to school that result from the withdrawal of fees are well established. Countries such as South Korea, Cuba, Zimbabwe—all of whom progressed rapidly towards universal primary education despite high levels of poverty and inequality—did so by reducing the costs to poor households through increased public investment. More recent examples are Uganda, Malawi, and Ethiopia. A recent study on the determinants of primary school enrolment in Kenya (Bedi *et al.* 2001) establishes that reducing primary school fees to zero may translate into a 10-12 per cent increase in enrolment. These increases, coupled with the current enrolment would bring the gross enrolment rate up to more than 100 per cent.

The study analysed static calculation of cost-effectiveness of specific inputs, which employ the gross costs of different inputs. The advantages of this method are that the net costs will differ from gross costs since improved student performance also entails dynamic efficiency gains (Hanushek and Harbison 1992). When students learn more because of additional or better inputs to their schooling experience, they are more likely to be promoted at each point in time. This reduces the total time spent in the system in order to reach any given grade level. Increasing the flow of the student through the system implies cost savings, since schooling services need to be provided on average for a shorter period in order for a student to reach a given level. These savings offset the costs associated with grade repetition and wastage.

Savings from improved flow-efficiency are often larger than the original costs of providing improved inputs in the schooling process. According to Hanushek and Harbison (1992), the normally postulated trade-off between quality and quantity of schooling appears to be quite the opposite in circumstances of severe educational deprivation. Instead, there is a positive interaction when enhanced quality engenders increased quantity.

7 Policy scenario for achieving universal primary schooling in Kenya

Efficiency calculations—the appropriate basis for assessing different policies to educate a given student population—involve the joint consideration of outputs and the costs of

inputs required to implement any policy. In ideal situations, the outputs can be valued in monetary terms so that the costs of inputs can be compared directly to resulting outputs, that is, cost-benefit analysis.

The methodology used for the cost-effectiveness analysis here borrows heavily from a paper by Bedi *et al.* 2001. According to the 1994 welfare monitoring survey (WMS II), the mean cost of primary education per family per month is around KSh 60. The price elasticity is shown in Annex Table 17. Using prices to change the policy variable, at the mean cost of KSh 60, the results suggest that a 2.5 per cent increase in enrolment (as outlined in the PRSP) could be achieved after the government meets 46 per cent of the costs of education per annum currently borne by parents. After 5 years this would yield universal education for all. Alternatively, the government could meet the target of universal schooling for all by meeting 221.8 per cent of the costs in one year (see Table Annex Table 15 for gross enrolment figures).

This means that the government of Kenya should not only consider reducing the cost of schooling to zero, but should also consider granting a subsidy to poor households. This could be in the form of school feeding programmes and bursaries to the poor households.

The student-teacher ratio does not seem to be a very good policy variable since it contradicts the PRSP and other studies (see Betts 1999). However, a study by Abagi and Odipo (1997) indicates that in most public schools, particularly in the slum areas, management committees have limited control over pupil-to-teacher ratios. In one school the ratios in lower primary classes (standard level 1 to 3) were 60:1 and in upper classes (standard level 4 to 8) 50:1. The study concludes that if pupil-to-teacher ratio is increased, participation in education is likely to be boosted at no cost. However, a more conclusive study is needed to map out effective pupil-to-teacher ratios.

In terms of the trained total teacher variable, a 2.5 per cent increase in enrolment could be achieved by increasing the number of teachers by 4 per cent per year for five years. Alternatively, a 12.2 per cent improvement in enrolment could be achieved by increasing the number of teachers by 19.7 per cent. Using 1994 data, a 4 per cent increase in the number of teachers would call for an additional 6,224 trained professionals per year. In terms of costs, assuming a teacher salary of KSh 6,000 per month, the government will have to spend an additional KSh 6.70 per pupil per month .

Of the two options, the most cost-effective policy is increasing the number of trained teachers, followed by a policy of subsidizing education. Better KCPE scores, as a result of increased enrolment is a likely by-product of the proposed policies. From the strategies laid out in the PRSP and *The Master Plan for Education and Training' 1997-2010*, it appears that the government of Kenya is, in one way or another, looking forward to adopting the policies proposed. Fiscal constraints notwithstanding, the policies might never be implemented unless the government is released from the debt burden.

8 Conclusions

The need to improve participation in and completion of higher levels of education has remained one of the primary goals of the government of Kenya. As a sign of this commitment, the government has, since independence, revised its education policies in line with the economic changes experienced in the country. As part of the education reform, the first wave of curricula ‘innovations’ were put in place in the late 1960s and in the 1970s to address the emerging issue of unemployment. A series of other reforms took place during the 1980s (see Annex 1 for a list of reforms). Current proposed reforms are outlined in *The Master Plan on Education and Training 1997-2010* and PRSP (GoK 1998; GoK 2001).

One of the most challenging reforms to date is the cost-sharing policy. As part of the policy to contain the public allocation to education and training, user contributions to E&T were increased as proposed in the 1988 Sessional Paper No. 6 and the national development plan 1989-93. In addition to providing physical facilities for schools, a practice that dates back to the colonial period, parents and communities were required to take over the provision of instructional materials and remuneration of non-teaching staff. The regular supply of textbooks and other essential materials to all primary schools was discontinued and non-teacher salary grants to secondary schools were greatly reduced. As part of increased cost sharing, user fees were introduced at the university level and other public post-secondary institutions. Teacher salaries continue to be the government’s major contribution to the budgets of the learning institutions. Due to increased poverty, however, communities in various parts of the country have not been able to provide adequate and relevant physical school structures.

This study addresses some of the problems and solutions to achieving universal education. Specifically, the study proposes to address the problem through funds which could be released by the debt relief initiative. The study proposes that the government increase the number of trained teachers, while reducing the cost of education to zero plus granting other subsidies such as school feeding programmes. The study notes that these policies could be effectively implemented if Kenya’s external debt is reduced to a sustainable level.

UNICEF and Oxfam estimate that achieving good quality universal primary education in Sub-Saharan Africa would cost US\$ 2-3.6 billion per annum for ten years, an amount equivalent to one-sixth to one-third of current debt servicing (UNICEF and Oxfam 1999).

It should be noted that even though the paper mainly covers the primary school subsector, the policy implications are extendable to the entire national education system, regardless of ownership or sponsorship of the institution concerned, and regardless of the education delivery system.

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APPENDICES

Annex 1: Educational reforms in Kenya

1966: The education system was changed from eight years of primary education to seven years while secondary and university education remained at six and three years, respectively.

1968: The 'old' mathematics curricula, which people believed made students attain low levels of competence in skills and to have little understanding of the concepts taught, was abolished through a government directive and replaced with 'new' mathematics. In content, the new mathematics included some of the topics taught in old mathematics in addition to new ones such as sets, geometry, probability and statistics, and matrices.

1974: The government introduced free primary education for standards 1 to 4. The suspension of fees boosted primary school gross enrolment rate by more than 49 per cent. Gross enrolment in standard 1 increased by 168.6 per cent between 1972 and 1974 (see Annex Tables).

1979: Primary school milk programme was introduced for the purpose of improving the nutritional and health status of children, so as to increase their learning abilities.

1980: Direct payment of school fees was abolished for students in standards 5 to 7 and for standard VIII in 1985. The abolition of direct fees in primary schools had a positive impact on school enrolment.

1981: The country reverted to old mathematics. This is an example of an *ad hoc* policy and has an impact on educational outcome.

1985: The 7-4-2-3 system of education was replaced with the 8-4-4 system. The introduction of 8-4-4 system placed emphasis on technical education that boosted the vocational element further in the last two years of primary school and throughout secondary school. Social Education and Ethics was also introduced in the same year. The course attempts to develop rationality in the students so that they are able to consider values and practices of society whenever they have to make moral decisions.

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Annex Table 1
KCPE candidates

Province	1990	1991	1992	1993	1994	1995	1996	1999
Coast	22,442	21,506	32,289	28,563	25,467	23,896	24,955	25,328
Central	66,073	65,381	74,592	72,417	74,131	77,504	79,548	83,201
Eastern	71,831	73,733	80,747	75,130	76,236	75,545	79,881	86,128
Nairobi	13,239	13,537	14,540	14,670	15,203	15,738	17,245	18,577
Rift Valley	76,591	76,203	86,043	82,197	80,354	84,101	91,919	101,645
Western	45,685	44,126	53,230	49,983	46,552	44,321	47,210	49,681
Nyanza	64,316	65,790	71,336	71,600	69,435	70,006	76,482	78,069
North Eastern	1,767	1,817	2,550	2,547	2,937	2,374	2,415	2,776
National	361,944	362,093	415,327	397,107	390,315	393,485	419,655	445,405

Source: Kimalu *et al.* (2001).

Annex Table 2
Education expenditure by levels (KSh '000')

Year	General ad & plan.	Primary	Secondary	Technical	Teachers' training	Special education	Polytechnic	Higher	Miscellane- ous	Total
1967/8	349.2	42.2	3730.2	586.1	1,125.4	775.5	0	1,280.9	256.5	8146
1968/9	399.3	5.4	4454.3	588	1,185.9	97.4	0	1,444.6	516.7	8691.6
1969/70	819.7	3,929.3	4708.3	695	1,257.5	102.8	0	1,847.3	0	13,449.4
1970/1	992.3	10,309.8	5489.8	791	1,275.5	144	0	3,386.9	0	22,474.2
1971/2	2540	12,654.9	6328.1	997.8	1,507	164.8	0	3849	0	28,128.8
1972/3	1953.8	21,308.1	6367.2	1,052.7	1,544.6	696.4	1,182.8	4,657.8	1,058.4	39,821.8
1973/4	2385.9	26,154.2	7042.4	1,176.4	1,834.3	463.1	747.6	4782	54	44,639.9
1974/5	1961.4	33,946.1	11073.1	1,013.1	1,950.7	652.9	965.3	7,437.8	675	59,675.4
1975/6	2382.1	43,608.7	10539.3	1,475.7	2,351.8	298.7	1,010.2	6,685.2	640.8	68,992.5
1976/7	3347.8	46,701.4	11035.5	1,623.2	3,917.1	355.9	1,131.4	8,590.8	750.9	77,454
1978/9	128.3	129.1	1127.5	205.7	548.9	87.5	2,278.8	570.2	22.6	5,098.6
1980/1	5,054.5	60,686.5	14,783.1	1,666.3	3,686.1	147	6474	12,754.6	1,338.1	106,982.3
1982/3	470.4	1,428	3,257.2	145.5	101	1,694.5	18.1	2,760.9	84.3	99,59.9
1984/5	7,422.5	98,427.5	20,169.3	2,986	6,684.4	940	2,468.2	21,437.8	2,333.7	163,454.9
1986/7	39,650	190,050	49,900	2,870	14,490	2,170	4,050	52,010	2,000	357,410
1987/8	44,260	222,020	59,500	3,200	16,750	3,030	3,150	73,430	1,790	427,430
1988/9	60,090	225,190	76,550	3,220	22,650	3,730	5,420	87,490	2,120	487,040
1989/90	61,720	267,610	87,580	9,830	20,720	3,900	6,880	132,810	6,390	597,440
1991/2	44,380	351,960	103,460	8,030	33,100	5,680	9,960	121,470	2,490	681,200
1992/3	67,810	395,280	125,030	5,150	30,800	7,030	4,870	159,070	1,550	797,270
1993/4	46,790	570,800	160,390	8,690	33,150	8,280	5,870	165,800	2,980	1,003,530
1994/5	987,960	33,650	18,080	12,430	36,040	2,010	7,230	219,970	4,020	1,321,570
1995/6	1,114,050	37,030	17,970	13,440	16,530	4,310	6,990	283,320	4,440	1,498,320
1996/7	1,188,960	39,450	28,250	14,730	25,560	9,080	7,710	248,210	6,140	1,569,120
1997/8*	1,783,920	29,490	16,490	22,470	25,890	5,920	9,350	299,460	6,650	2,202,270
1998/9*	1,857,340	26,410	16,130	30,710	19,920	3,660	10,080	259,470	9,220	2,238,330
1999/2000**	2,013,710	40,470	32,130	37,060	10,010	4,230	9,770	278,130	13,190	2,464,250

Note: * Provisional; ** estimates.

Source: Kimalu *et al.* (2001).

Annex Table 3
Education expenditure (KSh '000')

	Education expenditure				Public expenditure		
	Development	Recurrent	Total	% of recurrent to total	Recurrent	Development	Total
1991/2	55,820	625,380	681,200	91.81	182,3400	649,880	2,473,280
1992/3	66,390	730,880	797,270	91.67	2192,320	851,410	3,043,730
1993/4	59,560	943,970	1,003,530	94.06	2,659,480	1,024,860	3,684,340
1994/5	74,920	1,246,650	1,321,570	94.33	3,527,140	1,306,220	4,833,360
1995/6	83,610	1,414,710	1,498,320	94.42	4,193,600	1,384,160	5,577,760
1996/7	65,610	1,503,510	1,569,120	95.82	4,685,120	1,342,180	6,027,300
1997/8*	80,530	2,121,740	2,202,270	96.34	5,608,630	1,191,970	6,800,600
1998/9*	76,250	2,162,080	2,238,330	96.59	6,006,670	1,005,000	7,011,670
1999/2000**	84,270	2,379,980	2,464,250	96.58	6,445,040	2,178,460	8,623,500

Note: * Provisional; ** Estimates

Source: Kimalu *et al.* (2001).

Annex Table 4
Distribution of educational attainment, 1997, all ages (%)

Highest level of schooling attained	Male	Female	Group total
Pre-school	5.57	5.58	5.57
Primary:			
complete	13.04	13.40	13.22
incomplete	57.04	63.04	59.93
Lower secondary:			
complete	9.51	6.96	8.28
incomplete	11.16	9.42	10.32
Higher secondary:			
complete	0.66	0.25	0.46
incomplete	0.22	0.13	0.18
University	1.20	0.38	0.81
Technical/informal	1.59	0.84	1.23
Group total	100.00	100.00	100.00

Source: Own computation from Welfare Monitory Survey (1997).

Annex Table 5
Primary school gross enrolment rates (%) by gender

Year	Gross enrolment rates		
	Boys	Girls	Total
1990	94.16	90.21	92.19
1991	93.30	89.40	91.40
1992	93.07	90.00	91.54
1993	88.83	86.84	87.84
1994	89.13	87.83	88.49
1995	87.35	86.25	86.80
1996	87.33	85.54	86.44
1997	88.61	86.60	87.61
1998	89.36	88.24	88.80
1999	88.11	85.71	86.91

Source: Ministry of Education, Science and Technology, Statistics Section (2000).

Annex Table 6
Primary schools class size (pupils per class)

Province	1990	1991	1994	1995	1996	1997	1998	1999
Central	36.50	36.33	36.24	37.21	35.40	35.39	35.26	39.00
Coast	33.15	32.31	30.14	32.10	32.94	31.78	30.77	27.47
Eastern	31.40	31.13	28.33	28.37	28.30	28.22	29.58	29.90
North Eastern	31.82	28.93	29.82	20.92	28.74	31.29	35.44	36.11
Nairobi	41.45	41.23	41.04	38.83	38.31	37.98	38.91	39.52
Nyanza	30.42	29.88	31.05	28.18	26.54	30.52	30.78	27.91
Rift Valley	32.26	31.77	31.12	30.68	30.61	31.19	31.86	30.03
Western	33.02	34.95	34.36	34.16	34.48	34.57	34.20	33.76
National	32.71	32.56	31.81	31.31	30.79	31.67	32.08	31.19

Source: Kimalu *et al.* (2001).

Annex Table 7
Primary school completion rates by sex, 1989-99

Year in Std 1	Year in Std 8	% Completing Std 8		
		Boys	Girls	Total
1982	1989	47.9	43.2	45.6
1983	1990	45.7	40.5	43.2
1984	1991	46.4	41.6	44.1
1985	1992	44.7	48.2	46.4
1986	1993	44.5	42.2	43.4
1987	1994	44.6	43.0	43.9
1988	1995	43.0	42.1	42.6
1989	1996	45.1	43.5	44.3
1990	1997	46.3	45.8	46.1
1991	1998	46.4	48.1	47.2
1992	1999	47.7	47.8	47.7

Source: Kimalu *et al.* (2001).

Annex Table 8
Primary schools dropout rates by gender and province, 1993

Province	% Dropout rate		
	Boys	Girls	Total
Central	2.25	2.19	2.22
Coast	4.20	3.91	4.07
Eastern	5.82	5.43	5.62
North Eastern	8.71	11.18	9.38
Nairobi	6.67	3.32	5.05
Nyanza	6.49	6.59	6.54
Rift Valley	5.72	5.85	5.78
Western	8.01	8.02	8.02
Total	5.46	5.34	5.40

Source: Kimalu *et al.* (2001).

Annex Table 9
Repetition rates in primary school by sex and province, 1993

Province	Repetition rate (%)		
	Boys	Girls	Total
Central	14.7	14.0	14.4
Coast	10.5	10.6	10.5
Eastern	16.5	15.7	16.1
North Eastern	7.2	11.9	8.6
Nairobi	5.1	4.3	4.7
Nyanza	17.4	17.3	17.3
Rift Valley	16.7	16.5	16.6
Western	15.8	15.1	15.5
National	15.6	15.2	15.4

Source: Kimalu *et al.* (2001).

Annex Table 10
Primary to secondary school transition rates (%)

Year in Std 8	Year in Form 1	% of students transiting to Form 1		
		Boys	Girls	Total
1990	1991	45.40	43.70	44.60
1991	1992	46.90	45.00	46.00
1992	1993	41.80	35.00	38.40
1993	1994	43.20	42.10	42.70
1994	1995	45.40	43.90	44.70
1995	1996	46.00	44.30	45.20
1996	1997	45.30	44.50	44.90
1997	1998	45.60	44.30	45.00
1998	1999	40.50	39.10	39.90

Source: Ministry of Education, Science and Technology, Statistics Section (2000).

Annex Table 11
Primary schools pupil-teacher ratio by province

Province	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Central	32.74	33.34	33.43	33.36	33.39	33.30	33.27	33.50	32.12	33.51
Coast	35.10	33.90	33.72	32.71	31.48	30.54	31.16	40.18	31.58	33.64
Eastern	29.91	29.92	30.69	29.23	27.82	27.19	28.47	28.03	28.60	30.50
N/ Eastern	35.81	34.50	33.46	32.24	38.80	27.86	38.76	35.77	38.26	40.65
Nairobi	33.23	35.59	36.91	33.69	32.60	31.61	30.57	30.42	30.98	33.10
Nyanza	29.71	30.29	30.93	32.59	32.84	30.68	27.90	30.57	31.89	31.76
Rift Valley	30.16	30.26	29.83	29.19	30.05	29.59	29.15	27.93	28.78	30.72
Western	32.60	33.56	32.59	33.52	33.05	33.43	33.79	35.43	34.32	36.17
National	31.15	31.47	29.86	31.38	31.20	30.47	30.19	30.90	30.78	32.26

Source: Ministry of Education, Science and Technology, Statistics Section (2000).

Annex Table 12
Summary performance in the Kenya Certificate of Primary Education (KCPE)

Province	Average mean score (700 points maximum).			
	1993	1994	1996	1999
Coast	286.00	292.81	315.42	337.57
Central	371.25	363.34	354.32	338.70
Eastern	345.00	342.77	343.39	350.75
Nairobi	366.73	367.41	356.52	353.79
Rift Valley	357.01	360.77	364.20	363.22
Western	332.28	333.50	353.20	361.76
Nyanza	336.00	325.72	331.75	326.02
North Eastern	306.38	253.95	307.83	292.55
National	337.58	330.03	340.85	340.55

Source: *KCPE Newsletter* (2000).

Annex Table 13
Reasons given for currently not being in school (by age), 1997

Age	Reasons given for currently not being in school, %								
	Too expensive: cannot afford	Became an apprentice	School useless or uninteresting	Illness	Pregnancy	Failed exams	Other	Not stated	
6	20		5	10			45	20	
7	28			6			17	50	
8	39		9	17			4	30	
9	43		17	9			17	13	
10	63		15	11			4	7	
11	61		6	6	6		11	11	
12	43		20	8	2	2	16	10	
13	46		20	4		4	20	5	
14	47		23	5	2	6	14	4	
15	36	1	27	3	2	6	21	4	
16	34	2	18	4	5	11	22	5	
17	34	2	18	4	6	10	24	3	
18	30	2	13	2	7	12	31	3	
19	29	2	10	2	6	10	36	5	

Source: WMS III (1997).

Annex Table 14
Gross enrolment rates for primary schools in selected countries and regions

Country	1990			1995		
	Total	Male	Female	Total	Male	Female
Botswana	113	109	117	108	107	109
Burundi	73	79	66	51	55	46
Djibouti	38	45	32	38	44	33
Ethiopia	33	39	26	37	48	27
Lesotho	112	100	123	111	104	117
Kenya	92.19	94.16	90.21	86.80	87.35	86.25
Malawi	68	74	62	134	140	127
Tanzania	70	70	69	67	68	66
Zimbabwe	116	117	115	114	116	113
Uganda	74	83	66	74	81	68
Zambia	99			89	91	86
South Africa	122	123	121	133	135	131
Egypt	94	101	86	100	106	93
Rwanda	70	70	69
Mozambique	67	77	57	60	70	50
Swaziland	111	114	109	121	124	118
Democratic Republic of Congo	70	81	60
Sudan	53	60	45	50	54	46
Nigeria	91	104	79
Sub-Saharan Africa	74.8	81.9	67.6	76.6	83.8	69.4
Africa	77.7	85.1	70.2	80.4	87.6	73.1
Latin America including Caribbean	105	106.2	103.7	110.6	113.2	107.9
Europe	101.1	101.1	101.1	103.4	103.8	102.9
North America	104.3	105.5	103.2	108.3	110.4	106.1
Asia	103.8	111.1	96	104	110	97.7
World	99.2	105	93	100.3	105.5	94.7

Source: UNESCO (1999) for all except Kenya for which the source is Ministry of Education, Science and Technology, Statistics Section (2000).

Annex Table 15
Primary school enrolment rates in Kenya, 1994

	Gross enrolment rate (%)	Net enrolment rate(%)
Male	88.7	80.65
Female	89.6	78.38
Total	87.8	79.55

Source: Bedi *et al.* (2001).

Annex Table 16
Primary school net enrolment rates by expenditure in Kenya, 1994

Per capita expenditure deciles	Male	Female	Total
1	0.704	0.665	0.685
2	0.767	0.730	0.749
3	0.784	0.741	0.762
4	0.775	0.752	0.765
5	0.788	0.783	0.785
6	0.823	0.814	0.819
7	0.840	0.784	0.812
8	0.864	0.818	0.842
9	0.819	0.849	0.833
10	0.876	0.866	0.871

Source: Bedi *et al.* (2001).

Annex Table 17
Point price elasticities for primary school enrolment by expenditure quintiles in Kenya, 1994

Price range	Quintiles					Total
	1	2	3	4	5	
60	-0.12	-0.10	-0.10	-0.05	-0.00	-0.055
100	-0.29	-0.23	-0.24	-0.11	-0.00	-0.109
150	-0.52	-0.43	-0.49	-0.21	-0.00	-0.191
200	-0.81	-0.71	-0.85	-0.35	-0.00	-0.297
Average per capita monthly consumption (KSh)	208	432	636	903	1673	770

Annex Table 18
Point elasticities for primary school enrolment by expenditure quintiles

Educational characteristic	Quintiles					Total
	1	2	3	4	5	
KCPE score	1.64	1.18	1.04	0.81	0.47	0.95
Student-to-teacher ratio	-0.03	-0.09	-0.16	-0.06	-0.05	-0.09
Trained-to-total teacher ratio	1.20	0.93	0.62	0.51	0.00	0.62

Note: Input price elasticities calculated at the mean of the relevant school input. All calculations are based on estimates reported in Annex Table 6, column 4.

Annex Table 19
Relative effectiveness of various policy measures

Target: 2.5% increase in primary school enrolment		
Measure	Required change to achieve target (at the mean of the relevant measure)	Cost per month per student
Price of schooling (KSh)	60 to 32	28
KCPE score (out of 700)	333 to 342	...
Student-to-teacher ratio	32 to 23	
Trained-to-total teacher ratio (%)	85.9 to 89.4	6.70

Note: Input price elasticities calculated at the mean of the relevant school input. All calculations are based on estimates reported in Annex Table 6, column 4.

Annex Table 20
Pupil-to-teacher ratios

School category	Pupil-to-teacher ratios
Public, rural	36:1
Public, urban	34:1
Private schools	25:1

Source: Abagi and Odipo (1997).

