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Subsidizing Secondary Education in Kenya: Costs, Financing Sources and Implications

A workforce that can adapt to the fast changing global dynamics is critical for sustainable growth and development. Secondary school education plays a key role in the development of this workforce and has both private and social returns, not to mention the spillover effects that make this level of education a concern of government, society and individuals. However, this sector of education has faced problems of access due to high costs. The issue of who should pay for secondary education has gained momentum recently with the debate entering the public policy agenda.

Public intervention in the provision of secondary education is sometimes necessary to safeguard against inequalities in access given the relatively high household poverty incidence in Kenya. Furthermore, educating children up to this level has private benefits that accrue to the individuals and households, and there are also societal benefits and positive externalities associated with secondary education. Private markets, if left alone, may not satisfy private and social demand for secondary education. Currently in Kenya, there is public concern over the relatively high cost of secondary education, inadequate school places in certain localities and generally low enrolment. The Government has therefore made a commitment to provide free and compulsory basic education for all children, where secondary education is considered as basic.

On average, secondary school fee in 2007 was Ksh 32,910 per annum. This is about 72 per cent of GDP per capita, thus making secondary education unaffordable to an average Kenyan. The high cost of education is due to: cost of

students' upkeep, learning inputs, teacher salaries, school administrative inefficiency and Ministry of Education fees guidelines, among others. Given the high costs, it is imperative for the government to subsidize secondary education.

There are various mechanisms of delivering subsidies for education. Kenya, for example, has successfully implemented a system that ensures that money from the Ministry of Education goes directly to the bank accounts of service units or schools under the Free Primary Education. Elsewhere, other systems that exist include the school voucher, although available literature shows that there are mixed signals on the efficiency and effectiveness of this system. The system has, however, worked well in countries such as Chile, Sweden and Hong Kong. Criticisms regarding school vouchers has

This policy brief is based on KIPPRA Discussion Paper No. 75 on Free Secondary Education in Kenya: Costs, Financing Sources and Implications, by Moses Ngware, Eldah Onsomu, Benson Kiriga and David Muthaka

been levelled on whether governments should spend in private schools, and the degree of government regulation concerning how the subsidies are spent. The debate on voucher system is more within the political arena than the economic and education domains. Other concerns levelled against the voucher stem from the drive to maintain the status quo between some private schools that are exclusively for the more wealthy social classes and the public schools for the rest of the population.

A voucher system minimizes incidences of parents who send their children to private schools having to pay twice for education, through their taxes and to the private schools. Students from low-income backgrounds can access instruction through conditional vouchers in private schools of their choice. Vouchers give parents freedom of choice of schools, thus creating a healthy competition among schools of all types. They may improve school efficiency and effectiveness as the system introduces a dynamic process of change. Also, vouchers work well when the subsidy is conditional on the part of the school and usually pegged to the cost of public schools.

Scenarios for Subsidizing Secondary Education in Kenya

Scenario 1

Scenario 1 involves rolling out full Free Secondary Education (FSE) in the initial year.

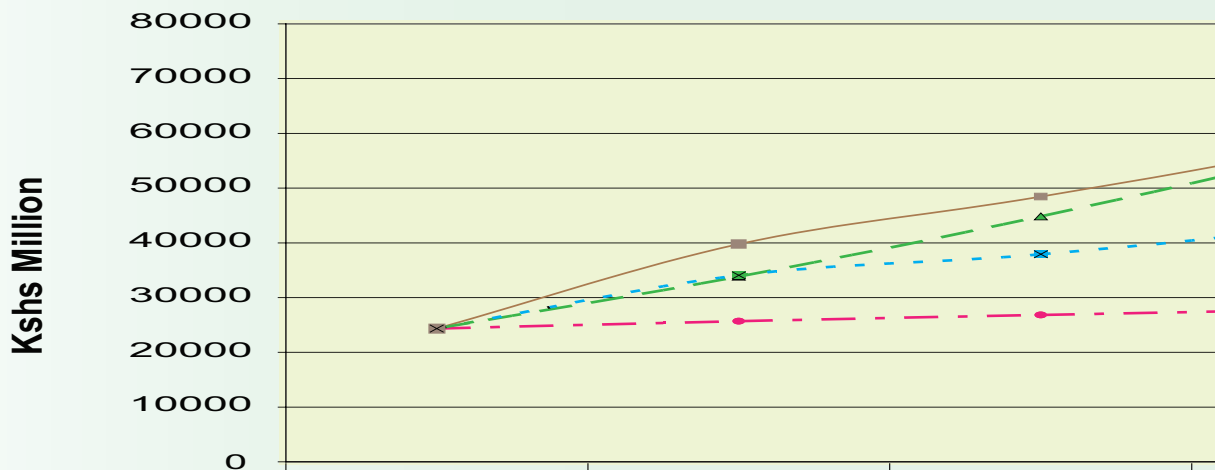
To start with, there will be demand for more school places with Form 1 admission expected to almost double the current real transition (to about 80%). The rest of the students will either join youth polytechnics or fail to enrol in secondary school due to non-fees related reasons.

On the basis of an average teaching load (ATL) norm of 18 hours per week and Full Time Equivalent provision, the number of teachers required is expected to increase from 48,425 in 2007 to 99,115 teachers in 2011. However, if the government were to review the norm and increase ATL to above 18 hours per week, relatively lower figures of teacher requirements will be expected. Extra classrooms and other infrastructural needs are more likely to be developed in form of new day schools and/or expansion of the existing school infrastructure, including an increase in the number of streams. Putting up this number of classes at short notice across the country requires massive logistic planning. In 2009, about 8,686 additional classrooms will need to be constructed and 10,554 by 2011.

Scenario 2

Rolling out FSE in say over a four year period, that is gradually, would put less pressure on resources and allow for a more elaborate implementation plan to be put in place. The main determining grade of FSE resource requirements and subsequent costs would

Implementing a full FSE would mean that infrastructure and other inputs have to be procured in the shortest time possible to avert an education quality crisis. The alternative would be a crash programme that will absorb the extra numbers within the existing infrastructure and perhaps hope that the expected drop in quality of education will be short-lived. If this happens, teachers and school managers would have to deal with over-crowded classrooms and hostels. The question that arises then is whether key stakeholders would co-operate?



	2007	2008	2009
Baseline	24342	25684	26833
Full FSE	24342	39776	48457
Gradual FSE	24342	33830	44830
TLM-SI	24342	34051	37918

constitute about 46 per cent regardless of whether it is full or gradual FSE. In fact, implementation can be made more feasible if the government were to concentrate on public day schools, with students joining boarding and private schools being allocated vouchers equivalent to the cost of a day school. This would perhaps call for bursary support to disadvantaged households to educate their children in non-day schools. Gradual FSE implementation is relatively cheaper in the short run by about Ksh 5.6 billion but the difference between the two approaches would be minimal by the fourth year of implementation.

Scenario 3

Scenario three involves public provision of teaching and learning material (TLM) and the necessary school infrastructure (SI). Unlike the other two, the TLM-SI scenario exempts parents from paying for that part of tuition fee meant for TLM and SI expenses. This scenario, like the others, also expects heavy support from the Constituency Development Fund (CDF) to go to school infrastructural developments. Based on the proportion of TLM cost to non-salary expenses, we estimate a real transition of 64 per cent in 2008, which

is expected to stabilize at 72 per cent (in an optimistic situation). If TLM-SI were to be implemented, this would constitute a heavy public subsidy to day secondary schools. This approach has a relatively lower impact on transition, enrolment, number of teachers, infrastructural needs and computers as all these depend on the Form 1 entrants, who are mainly attracted by low fees among other factors.

Implications

Macroeconomic

The macroeconomic implications are based on the assumption that the ensuing financing gap will be financed through extra tax revenue generated by the economy and domestic borrowing.

Under scenario 1, the two sources of financing give positive impact on economic growth. Under scenario 2, there is an improvement in the economy as it registers a 0.6 per cent in 2008 to 1.1 per cent in 2011. Scenario 3 has a slight general improvement of 0.6 percent in 2008 as compared to 0.5 per cent in 2011. The budget deficit is caused by a rise in

expenditure as compared to the slow growth in revenues.

Implications for education

The implications for education of the three financing scenarios are largely similar in nature though they differ in magnitude. Implementing a full FSE would mean that infrastructure and other inputs have to be procured in the shortest time possible to avert an education quality crisis. The alternative would be a crash programme that will absorb the extra numbers within the existing infrastructure and perhaps hope that the expected drop in quality of education will be short-lived. If this happens, teachers and school managers would have to deal with overcrowded classrooms and hostels. The question that arises then is whether key stakeholders would co-operate?

The other alternatives to solve the infrastructural problem in the short-term would be to:

- (i) Utilize any idle capacity in other neighbouring government institutions, including teacher training colleges, youth polytechnics, and technical institutions, among others;
- (ii) Call upon the private sector and religious organizations to make available, on short term basis, any of their under-utilized or idle infrastructure that meets certain minimum conditions for use in FSE. The question then would be whether they would be willing, and at what cost?;
- (iii) Expand the existing infrastructure in primary schools to accommodate a day secondary school;
- (iv) Encourage students and parents to go for admission to private schools, then give

them vouchers equivalent to the unit allocation in public schools; and,

- (v) Introduce double shifts using the existing infrastructure, especially in densely populated areas. Double shift do not necessarily improve transition or enrolment but increase utilization of resources and hence cut on costs. In some countries where they are practiced, they are unpopular with parents but liked by teachers as they teach half day, which means a shorter working day and increased teacher requirements for the two shifts.

To maintain quality and improve teacher utilization while keeping the teacher wage bill within manageable levels, about 11,590 teachers (5,403 in 2008 and 6,187 in 2009) will be needed in the short-term to cater for the extra students at an ATL of 18 hours per week. If lower pupil-teacher ratio (PTR) and ATL were to be preferred, then a higher number of teachers than proposed would be required. It should be noted that in 2005, PTR was about 21—the Economic Recovery Strategy recommends a PTR of 35 for effective utilization of teachers. The critical issue surrounding this resource is financing the extra teacher wage bill and whether such teachers are prepared to teach. At current salary scales, the secondary school teacher wage bill would increase by over Ksh 2.2 billion in the first year.

To safe guard against quality decline, given the inevitable overcrowding, it would be necessary to supply text books at a ratio of 1:1. If this is done for seven subjects, the textbook bill (together with other TLM) is estimated at Ksh 6.3 billion in the first year of implementation. However, it is possible to reduce this amount if a decision is made to supply textbooks to only a limited number of the existing secondary school students, as some of them already have the books.

Another main cost consideration would be the student accommodation bill for existing boarding schools. About 758,000 pupils will be provided with accommodation. It is expected that households would meet the cost of transport, clothing including school uniforms if applicable, and personal effects. Finally, to provide FSE, the government would have to slightly increase programme administrative costs. The total operations and maintenance cost for full FSE is estimated at Ksh 3.2 billion in the initial year and Ksh 5.8 in the fourth year. Schools would benefit from this allocation to meet their general purpose expenses, while the District Education Office and the Quality Assurance Office would use the same funds to monitor implementation.

Possible Sources of Financing

Domestic financing

Domestic financing would be through government revenue generation. This is possible given two reasons: First, in the recent past there has been a rise in the efficiency of tax administration and collection as manifested by increased revenue collections; and second, there have been very positive gains in economic performance with real GDP growth rate estimated at 6.1 per cent in 2006 with higher expectations in the future. Therefore, there is more optimism that tax revenue generation will go up if the current trends continue.

Financing gap disaggregated by recurrent and development*

FULL IMPLEMENTATION									
	NO COMPUTERS					WITH COMPUTERS			
	2007/8	2008/9	2009/10	2010/11		2007/8	2008/9	2009/10	2010/11
Recurrent Gap	14,093	17,547	25,909	39,897		14,093	24,529	30,280	41,791
Dev. Gap	(129)	4,077	4,927	5,136		(129)	4,077	4,927	5,136
Overall Gap	14,093	21,624	30,836	45,033		14,093	28,606	35,207	46,927
GRADUAL IMPLEMENTATION									
	NO COMPUTERS					WITH COMPUTERS			
	2007/8	2008/9	2009/10	2010/11		2007/8	2008/9	2009/10	2010/11
Recurrent Gap	8,147	13,920	24,833	40,290		8,147	20,902	29,204	42,183
Dev. Gap	(129)	4,077	4,927	5,136		(129)	4,077	4,927	5,136
Overall Gap	8,147	17,997	29,760	45,426		8,147	24,979	34,131	47,319
TEACHING and LEARNING MATERIALS AND SCHOOL INFRASTRUCTURE									
	NO COMPUTERS					WITH COMPUTERS			
	2007/8	2008/9	2009/10	2010/11		2007/8	2008/9	2009/10	2010/11
Recurrent Gap	8,196	8,107	11,903	21,177		8,196	14,183	15,623	22,645
Dev. Gap	171	2,978	3,977	4,245		171	2,978	3,977	4,245
Overall Gap	8,367	11,085	15,880	25,422		8,367	17,161	19,599	26,890

Notes: *The gap is based on secondary education projected allocations as in the MPER 2007, Sector Review Report 2007 and the GoK Medium term monetary programme

A closer look at a comparison between estimated increased total Government revenue and the financing gap (as shown in the Table) reveals that implementing full FSE is a big sacrifice; the FSE financing gap is likely to consume about 28 per cent of the increased total Government revenue in the initial year. This will be expected to rise to about 50 per cent of the increased revenue by the fourth year of implementation. If the implementation is done gradually, the proportion of the gap to increase in total revenue is relatively low (16%). Given these proportions, spending the increased revenue on FSE is likely to greatly compromise investments in other areas of the economy. Given the priority and civic anxiety that would come with FSE, and coupled with the need to succeed, it would be expected that FSE will be a core programme whose expenditures require to be ring-fenced. It is also likely that the final decision to implement FSE will have a strong political influence. However, results from the KIPPRA-Treasury Macro Model (KTMM) show that this source can contribute between Ksh 2.4 billion and Ksh 19.9 billion in a four year implementation period.

Domestic borrowing

The economic implication of increasing domestic borrowing is the crowding out effect of private investment. However, the Government is committed to maintaining low domestic borrowing requirements in order to provide adequate room for significant but non-inflationary expansion of credit to the private sector. If the Government were to maintain this trend, then little is expected from this source. However, if it were to be used without necessarily expanding it, then domestic borrowing would compromise funding on other development expenditure items.

About 3 per cent of Government ordinary revenue is earmarked for the Constituency Development Fund. Assuming that the Ministry

of Education can convince Members of Parliament and Constituency Development Fund Committees to spend up to three-quarters of the 50 per cent of CDF in support of FSE for the next four years as an affirmative action, about Ksh 3.75 billion could be made available annually from this source—that would largely go into infrastructural development. However, availability of this fund is largely influenced by political goodwill.

Official Development Assistance in form of grants

Kenya's development partners have played a big role in funding the FPE programme and therefore remain a potential source of financing FSE. However, the question remains as to how much could be raised from development partners, bearing in mind that their focus is more on FPE. A look at development partners' contribution to the Kenya Education Sector Support Programme (KESSP) gives an indication of what would be expected. Treasury projects about 1 per cent of the education budget will come from development partners.

Conclusion and Recommendations

Despite various challenges, Free Secondary Education would be a good public initiative that, if implemented, would increase access to secondary education while at the same time relieving parents the cost burden and therefore allowing households to increase consumption on other needs such as health and post-secondary education and training. This would impact positively on poverty reduction. Also, provision of a heavily subsidized secondary education would increase the country's stock of human capital while at the same time increasing the social benefits of education. Such a move would be very popular with citizens and would reinforce the need for embarking on affordable or free secondary education.

Before implementing Free Secondary Education, a number of other critical policy decisions have to be made. For instance, do all students have to follow the same general education curriculum or should there be a parallel and flexible secondary, vocational and technical curriculum? The outcome of such a policy decision is expected to influence the costs of implementing FSE. It is, however, important that if FSE is implemented, the programme should also benefit youth polytechnic in order to finance artisan training programmes and ensure improved skills training, otherwise those completing Standard 8 completers would shun them in favour of free secondary education.

It would also be of policy importance to discuss who should actually be subsidized. Does the public need to provide FSE using scarce resources to households who can actually afford to pay. This calls for an elaborate targeting and funds disbursement mechanism. In addition, the role of private sector investment in secondary education needs to be understood. It is not the intention of the government to push the private sector out of secondary education financing and provision. Overall, FSE should give cognisance of the need to improve quality and linkages between secondary education and the labour market and not only expanding access to secondary education.

Provide teaching and learning materials

Key teaching and learning materials, including computers, should be provided to all public schools, especially day schools. While teaching and learning materials may be required immediately, the provision of computers could be delayed by up to one year. The need for computers is justified by the current national and global technological changes. An environmental impact assessment exercise should precede the supply of large numbers of computers in order to establish social, economic, legal and environmental implications.

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Determine the unit cost of secondary education

Currently, most public schools are charging between Ksh18,000 and Ksh 50,000 per year, which compares relatively well with the 2001 Ministry of Education fees guidelines if one were to factor in inflationary changes. The basis of fees guidelines and school fees levels set by individual schools are not yet clear. A survey on the market price of school inputs that are required to produce the desired outputs is one way of providing information for unit cost analysis.

Introduce school vouchers to enhance funds disbursement and quality of secondary schools

Currently, the Ministry of Education sends FPE funds directly to schools. This system has served the FPE programme very well. However, to improve the quality of secondary education through market forces, it is imperative to use a school voucher system, which entails a funds disbursement process that targets the 'consumer' who would then make a choice of the school to attend regardless of whether it is public or private. This gives an alternative fund disbursement mechanism while providing

choice and inducing education reforms that would require secondary schools to operate more efficiently and effectively as they compete for students.

Provide incentives to school managers for achieving expected results at low costs

More often than not, organizational interests conflict with individual interests. To ensure that the school manager will in most cases act in the best interest of the organization, it is imperative to introduce a system of reward (and punishment) for achieving the desired results at low costs. Such incentives should include tying this kind of indicator to promotion (or demotion), non-salary monetary benefits and sponsored education trips, among others.

Enhance bursary funds and give full support of four years to all Orphans and Vulnerable Children (OVCs)

In the event that full FSE is not practical in the short term, the Ministry of Education may have to consider enhancing bursary funds and combine this with more effective targeting approaches with a view to including all eligible OVCs. Politicians should actually play the role of watchdogs rather than implementers. Targeting exercises need to be operationalized at the lowest administrative level, such as sub-location/village level and use community local leaders,

primary school headteachers and representatives of school management committees in order to be more effective in identifying the students who are vulnerable and poor.

Provision of a heavily subsidized secondary education would increase the country's stock of human capital while at the same time increasing the social benefits of education. Such a move would be very popular with citizens and would reinforce the need for embarking on affordable or free secondary education.

Shift the selection of form 1 bursary beneficiaries to when they are in standard 8

In addition to the bursary improvement measures mentioned above, there is need to increase real transition rate from under 50 per cent to over 60 per cent. This can be done by targeting Form 1 beneficiaries when they are still in Standard 8, with a view to capturing those who are discouraged from reporting to the admitted secondary schools due to lack of fees or due to information asymmetry, and earmark a certain proportion of bursary for improving real transition rate.

About KIPPRA Policy Briefs

KIPPRA Policy Briefs are aimed at a wide dissemination of the Institute's policy research findings. The findings are expected to stimulate discussion and also build capacity in the public policy making process in Kenya.

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